

RICHMOND GREENWAY GAP CLOSURE STUDY

Final Draft

JANUARY 2023



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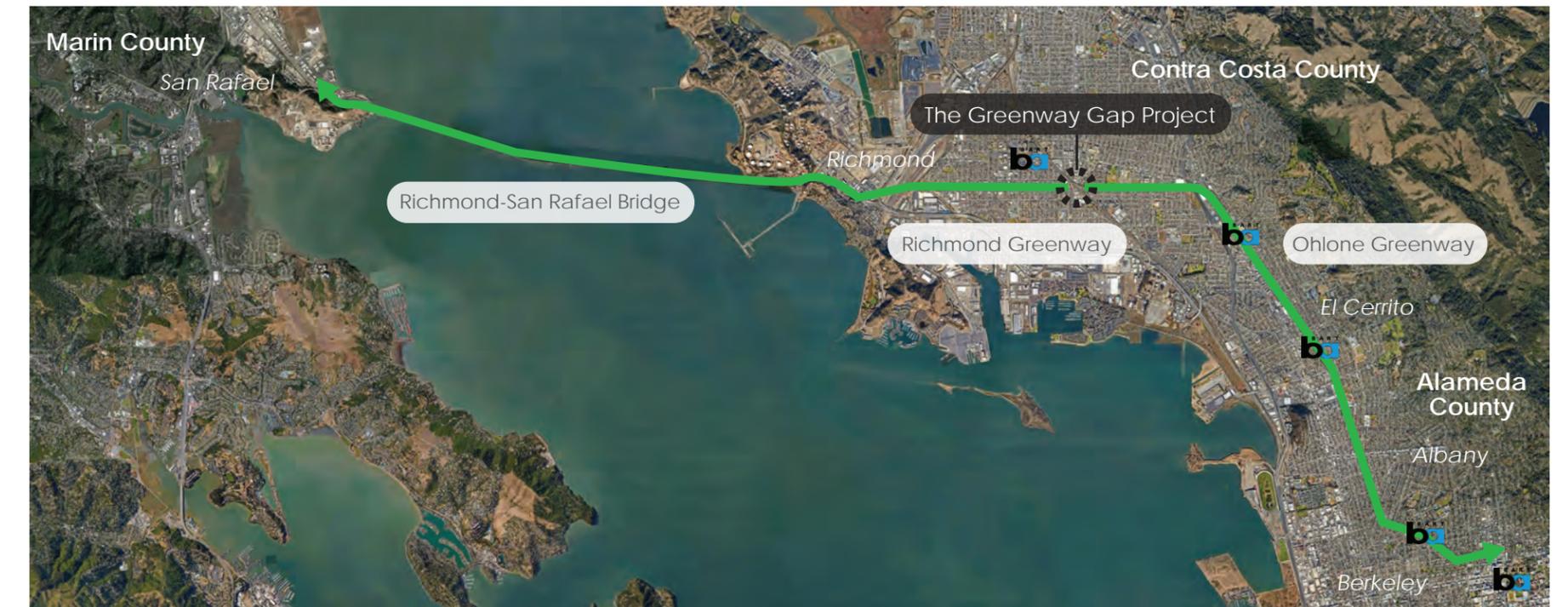


EXECUTIVE SUMMARY

IMPORTANCE OF CONNECTING THE GREENWAY

The Richmond Greenway is a critical local and regional trail connection for Richmond residents and provides space for people to gather, play, and travel. However, the Greenway is not continuous and the gap at 23rd Street and Carlson Boulevard creates travel barriers by forcing trail users onto high-stress and high-speed streets. Opportunities also exist to improve access to the Greenway itself by increasing safety and comfort for people traveling to the Greenway using active modes such as walking and biking.

Closing the Greenway Gap would transform the connectivity of the Greenway providing seamless access between Contra Costa, Alameda, and Marin counties. Greenway improvements would also provide important benefits to lower-income, communities of color who live in the neighborhoods next to the Greenway, including improved walking and biking access to local and regional destinations.



COMMUNITY ENGAGEMENT

Engagement with public and technical stakeholders was central to the study and played a critical role in informing recommendations. Pogo Park, a local community-based organization, led public engagement, which focused on understanding existing needs, co-creating a bridge design with Richmond residents, and refining emerging concepts and designs. Key public stakeholders included Friends of the Richmond Greenway, Dirt World, and Groundwork Richmond. As Dirt World Bike Park will experience significant impacts with the construction of the bridge, their input was instrumental in the development of the design concept and funding approach.

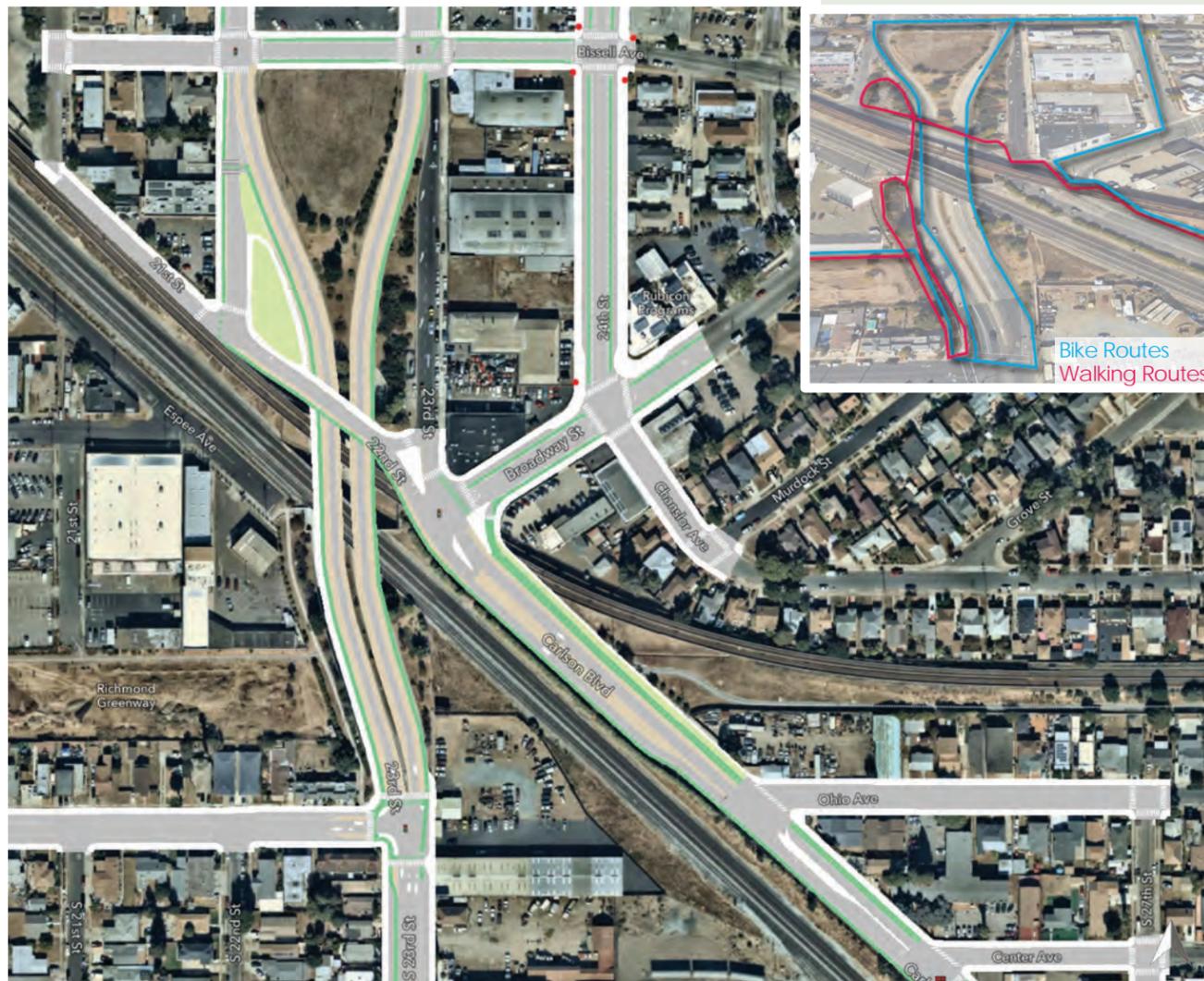
The bike park serves to activate this segment of the Greenway, making it safe, clean and green, so disruption of park usage would diminish neighborhood revitalization efforts. Illegal dumping, vandalism, encampments, and flood hot spots are constant challenges on the site that volunteers work hard to remedy.



PREFERRED BRIDGE DESIGN

The study developed concepts for a future bridge as well as street and park improvements. The final bridge design is inspired by an osprey and was informed by a community desire to have the bridge reflect the City of Richmond and present a bold vision for Richmond's future. The bridge alignment was also informed by community preferences to maintain open space along the Greenway and provide a buffer between the bridge and adjacent residences. The bridge will be a transformative long term improvement to connect both sides of the gap.





NEAR-TERM MOBILITY AND ACCESS CONCEPT

The study proposes a wide range of access improvements as well as specific street design concepts. Given the importance of reducing barriers and improving safety and comfort for people traveling across the Gap, both near-term and long-term improvements are proposed. Near-term improvements include changes that can be quickly implemented such as quick-build protected bike lanes and crosswalk improvements.

LONG-TERM MOBILITY AND ACCESS CONCEPT

Long-term improvements include the bridge structure, as well as more substantial circulation changes such as repurposing existing vehicle travel lanes. Repurposed vehicle travel lanes will increase space for people walking and biking, particularly on 23rd Street and Carlson Boulevard.

The study also proposes improvements to the Greenway to improve comfort and accessibility for park users. Improvements would include park amenities such as seating, drinking fountains, and trail lighting.



NEXT STEPS AND IMPLEMENTATION

The vision for the Greenway will be implemented with a three-pronged approach that encompasses securing funding, developing financing mechanisms, and ongoing collaboration with community stakeholders. The City will first coordinate with partner agencies to secure funding for the bridge, transportation, and park improvements. The City will also coordinate with regional stakeholders to identify and implement a financing mechanism for on-going maintenance for the bridge and Greenway. Continued collaboration with key community partners, particularly partners such as Dirt World who will be impacted by bridge construction, will also be critical to implement the recommendations in this study.



01

INTRODUCTION

Bridging the gap would provide major benefits to both local and regional residents and visitors. The recommended improvements would build on past and ongoing community efforts to make the Greenway a beautiful and fun place to be.

1.1 Importance of Connecting the Greenway

The Richmond Greenway ("Greenway") is a community trail and public park running through the heart of Richmond connecting to the San Francisco Bay Trail to the west and the Ohlone Greenway in El Cerrito to the east. It also connects the Richmond Wellness Trail, Yellow Brick Road, and F2B2G. Community leaders and groups have transformed the Greenway into a home for public art, parks, community gathering, BMX skills, recreation, and safe travel for people walking and biking. This includes destination parks for Richmond residents and beyond with Dirt World, Harbour 8 Park, and Unity Plaza.

While most of the old Santa Fe Railroad right-of-way has been converted to a rail-trail, a major gap exists in the middle of the trail in Central Richmond due to a complicated knot of infrastructure and grade separations, including the active Union Pacific railroad line, Carlson Boulevard, and 23rd Street. This gap is so impactful that it makes east-west travel on the Greenway impossible for most. For those who do use it, the gap requires a complex detour onto high traffic, high speed, and high stress City streets. This study offers a vision to bridge the east and west sides of the Greenway and create a world-class landmark reflecting the future of Richmond.

Figure 1
Regional Significance of the Gap

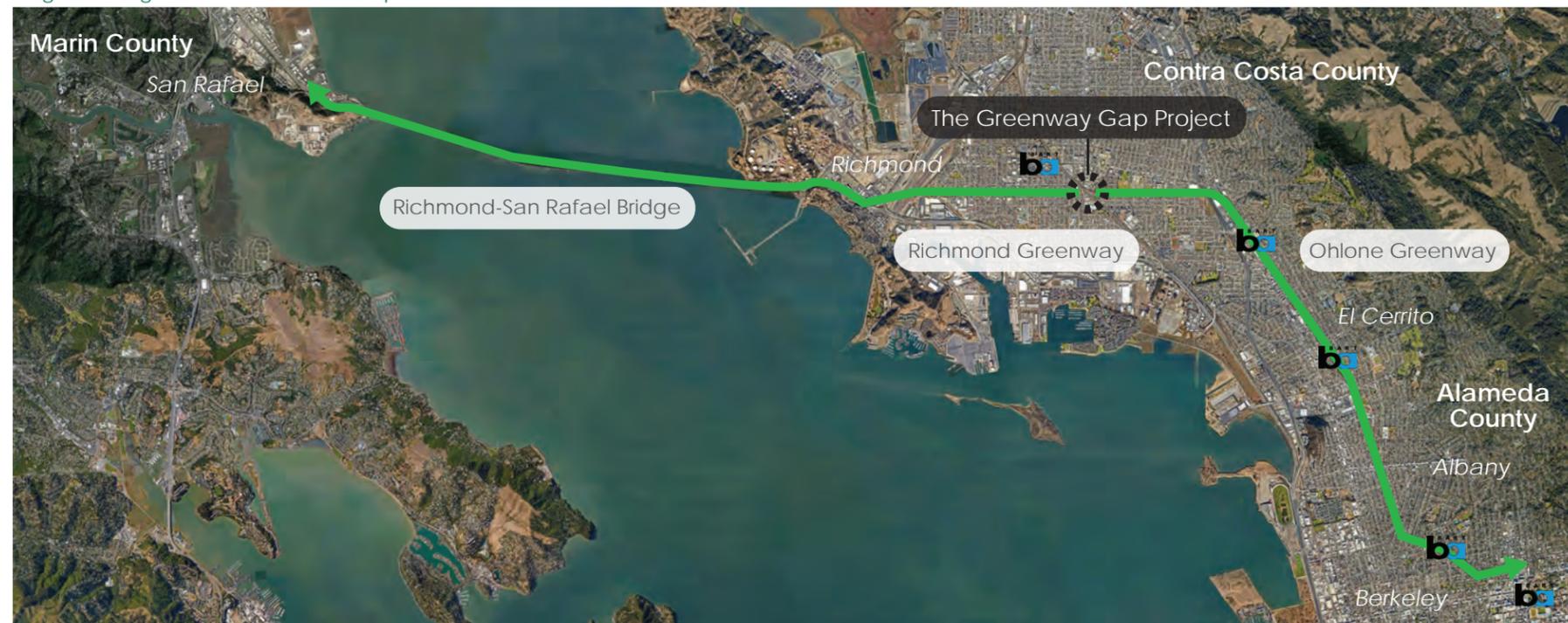


Figure 2
Gap Location

Bridging the gap would provide transformative regional and local benefits. Regionally, closing the gap would create over 15 continuous miles of high-quality biking and walking routes to connect the cities of Berkeley, Albany, El Cerrito, Richmond, and San Rafael across Alameda, Contra Costa, and Marin counties. It would also support safer street connections to access the Greenway, parks, BART stations, and Central Richmond, as well as create opportunities for further investment in Dirt World, Carlson Meadow, and the east side of the Greenway.

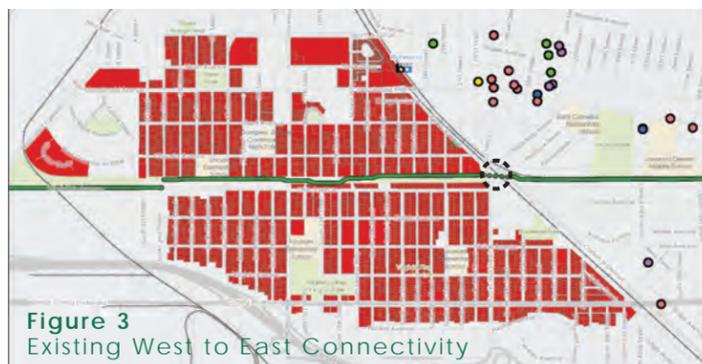


BRIDGING THE GAP TO IMPROVE CONNECTIVITY AND ACCESS

For residents, getting from one side of the gap to the other is difficult and inconvenient. Closing the gap would improve access to key destinations like shopping centers and places to eat. Residents west of the gap would be able to reach 53% more key destinations via a high-quality bike route, while residents east of the gap would see a 46% increase in key destination connectivity.

*Analysis looked at the top 5 destination types residents indicated they would bicycle to more frequently if the Richmond Greenway Gap were closed, according to a recent survey.

Source: Rails-To-Trails, 2022.



Richmond Greenway

- Completed Greenway
- Greenway Gap

Destinations by Type*

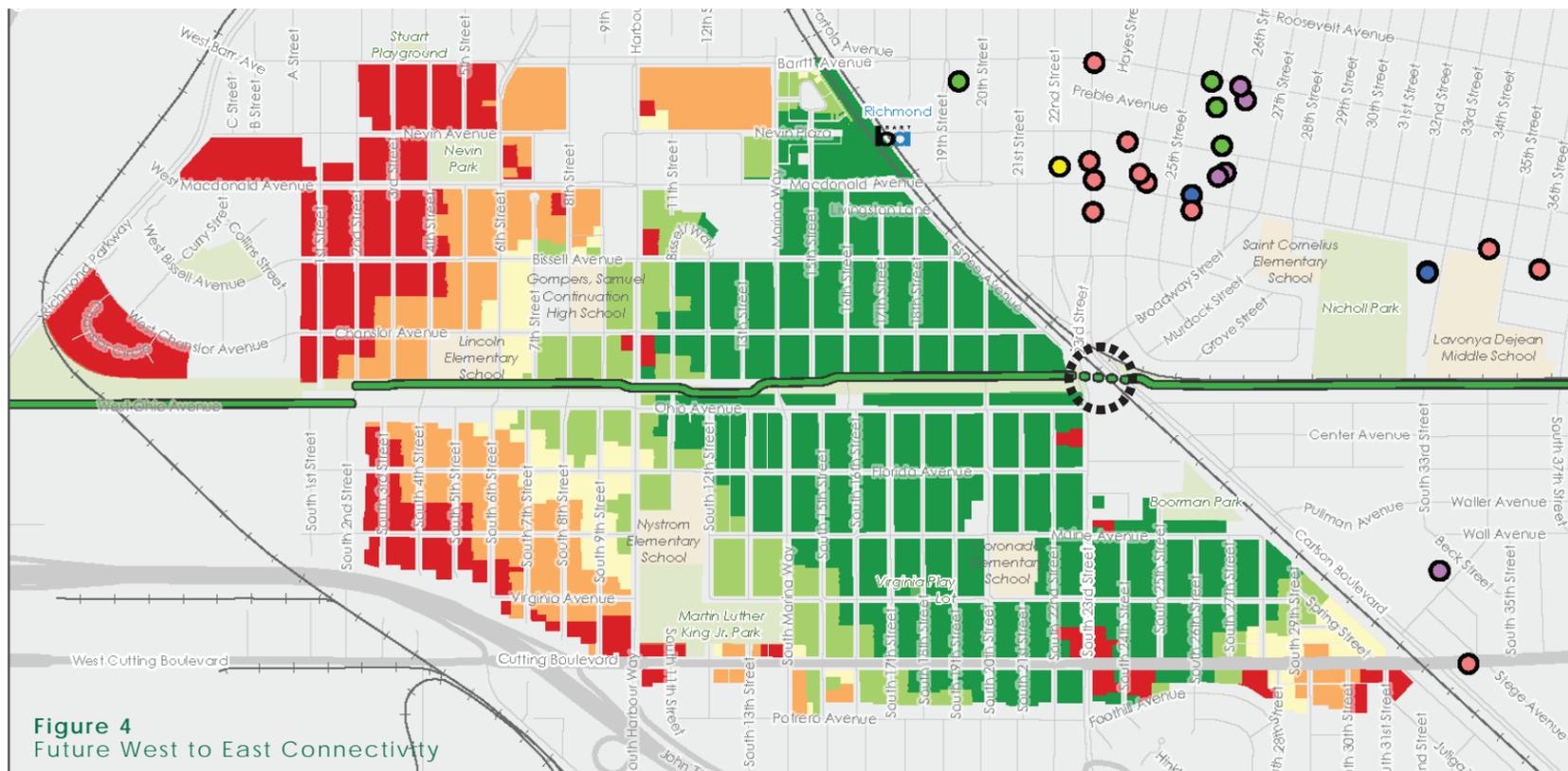
- Arts / Entertainment / Recreation
- Community Center
- Eating Place
- Government / Public Services
- Shopping Center

Connectivity

Percent of destinations connected to each residence via a low-stress bike route

- 0% - 20%
- 21% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 100%

*Some destinations included in the analysis are located outside the map area



1.2 History of the Greenway



1968
Lillie Mae Jones advocates for the Greenway



2006
Pre-Greenway



2018
Unity Park, Richmond-Ohlone Greenway Connection, and Dirt World Skills Park open



02

EXISTING CONTEXT

Residents that would benefit from improved connections to the trail are largely people of color and lower-income. There are many opportunities to improve connections.

2.1 The Neighboring Community

A diverse group of residents live along the Greenway and would benefit from improved connections to the trail. Compared to the rest of the city, residents living along the Greenway tend to be lower-income and people of color. As noted in Figure 6, while 64% of Richmond residents are Black and Hispanic/Latino, this demographic makes up 84% of residents near the corridor.

The median household income around the Greenway Gap is less than \$55,000 as compared to \$72,000 in Richmond as a whole, and people who live in neighborhoods around the Greenway are also more likely to be people of color (American Community Survey, 2019).

People living near the Greenway Gap are also heavily burdened by pollution. Residents west of the gap are in the top 10th percentile for people most burdened by pollution in California, while those living east of the gap are in the top 15th percentile (CalEnviroScreen, 2020).

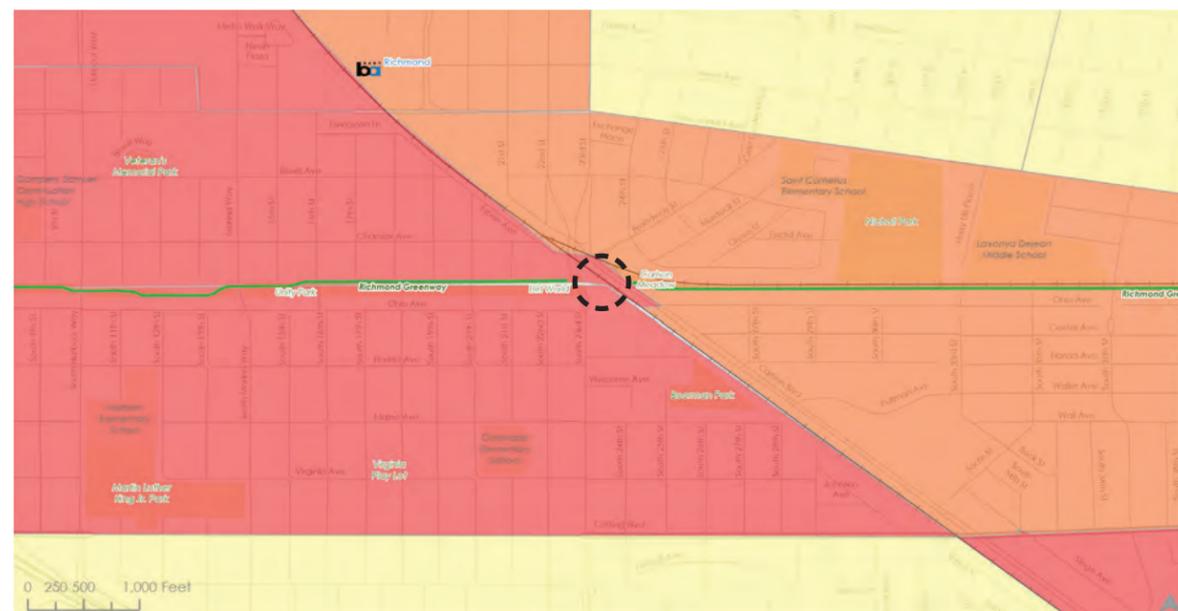


Figure 7
Pollution Burden
Source: CalEnviroScreen 4.0, 2020.

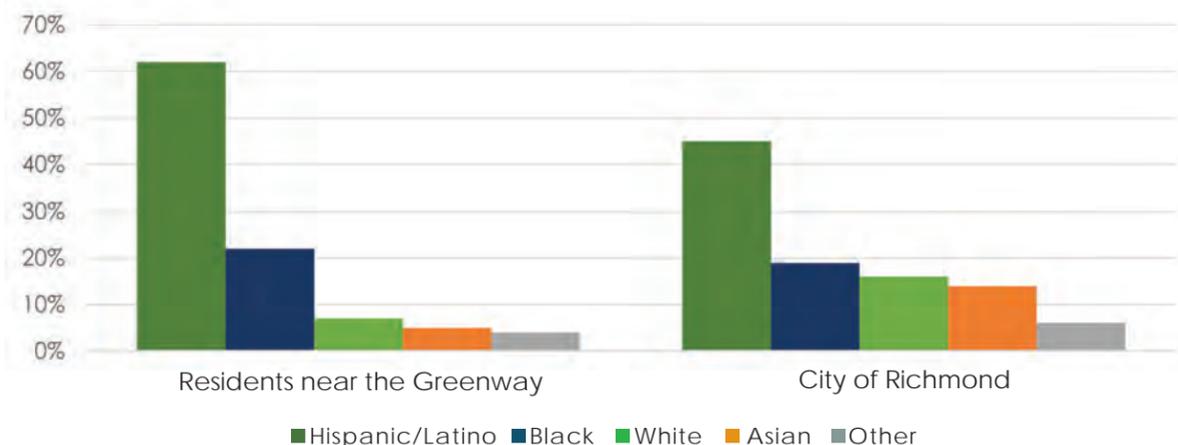
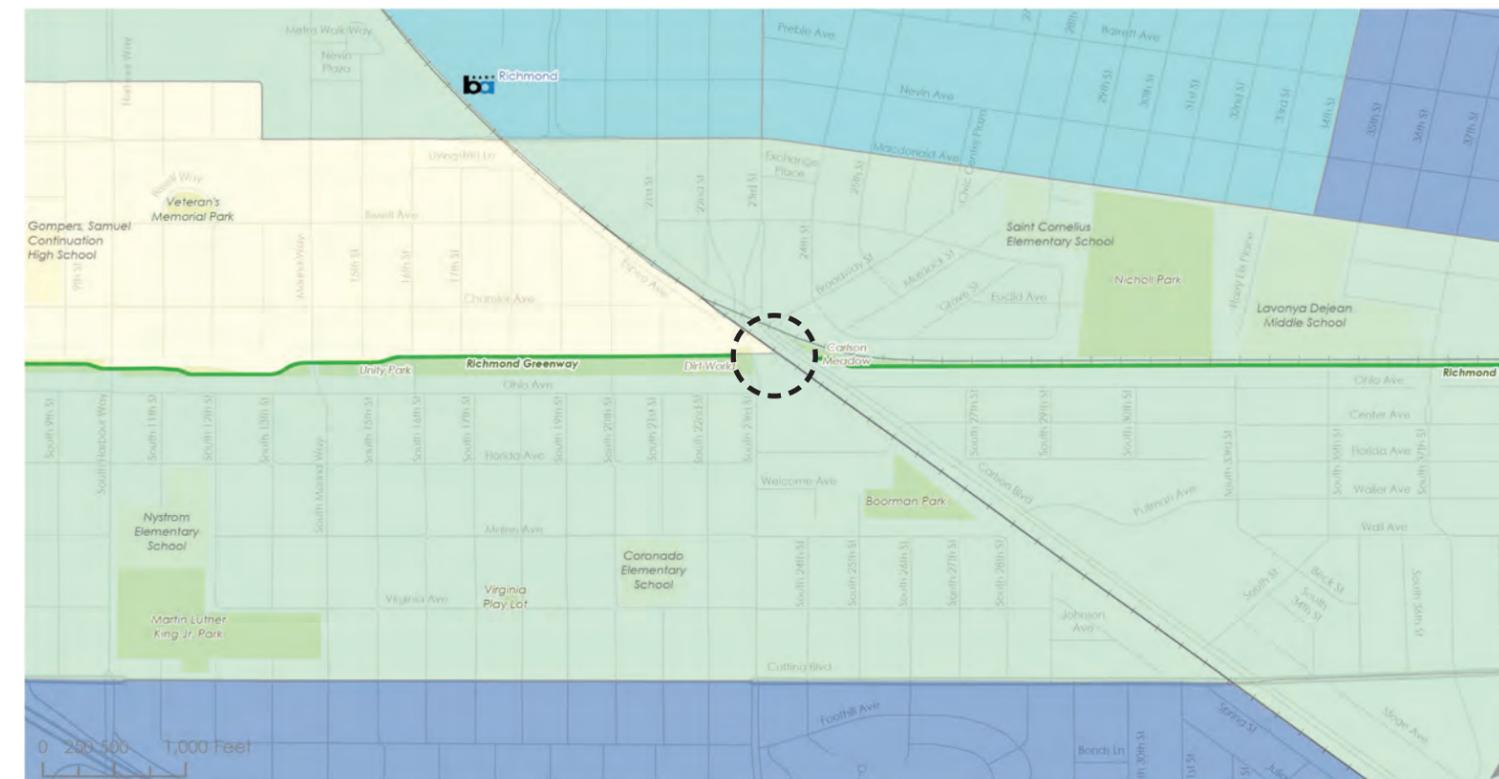


Figure 8
Race/Ethnicity
Source: American Community Survey, 2019.

Figure 9
Median Household Income (2019)



Source: American Community Survey, 2019.

While industrial land lies within the Greenway Gap, most of the Greenway is lined by housing. In addition to destinations on the Greenway like Unity Park and Dirt World, the Greenway provides access to nearby community amenities and services as well, such as BART and Lincoln Elementary east of the gap. Closing the Greenway Gap would play a key role in increasing access to open space and providing access to high-quality walking and biking routes for this community.



2.2 Recent Projects

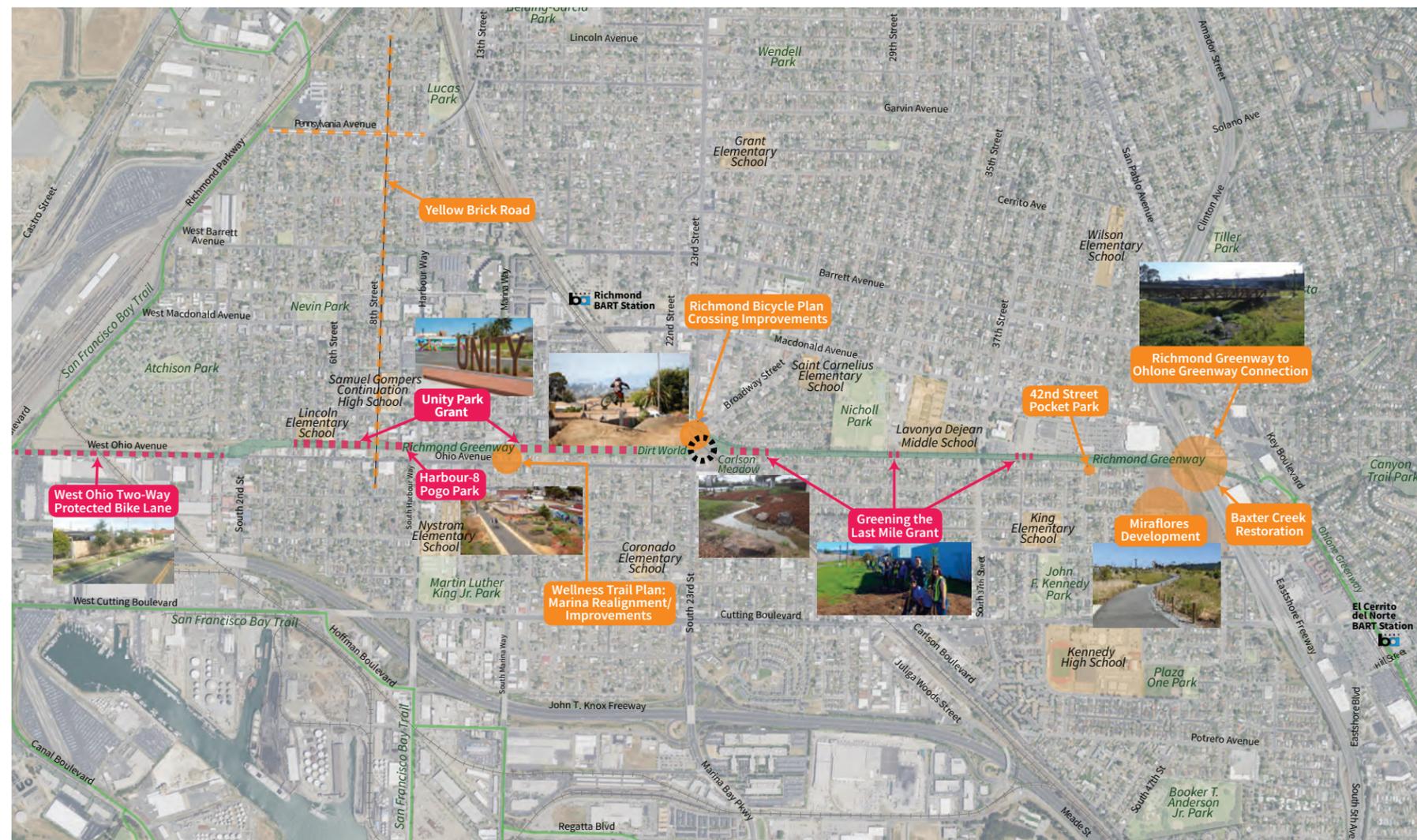


Figure 10 Recent Projects on the Greenway



2.3 Access Experience

TRAVERSING THE GAP

There is no direct connection between the east and west Greenway segments today. If people even make the trip, they must take a time-consuming route from 23rd Street to Carlson Boulevard, both of which are high- and fast-traffic streets that pose safety challenges. Although protected bike lanes are planned for 23rd Street, they have not yet been constructed. Many people will avoid crossing the gap altogether and use high traffic stress corridors on parallel streets like Macdonald Avenue and Cutting Boulevard. These streets are also on Richmond’s High Injury Network, as seen in Figure 10 in the upcoming Transportation Safety section, and have the highest concentrations of fatal and serious injury collisions (Travel Safe Richmond, 2022).

A direct connection between the two sections of the Greenway would be about 500 feet, but today bicyclists must travel six times further and pedestrians four times further to cross the Greenway.

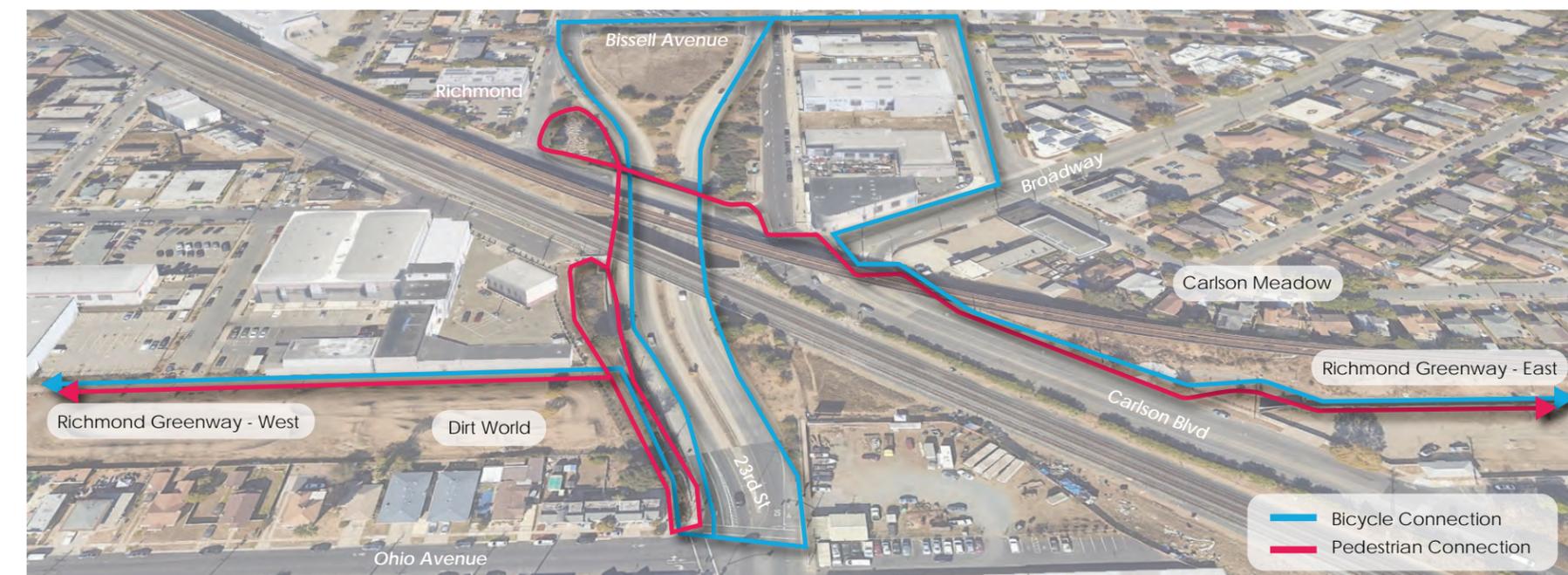
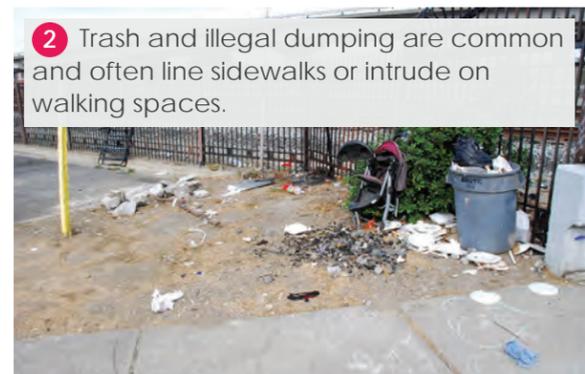


Figure 11 Bicycle and Pedestrian Paths Across the Gap

People **walking** across the Greenway Gap must navigate a circuitous route that is out of direction, confusing, feels dangerous, and involves travel on a High Injury Network street.



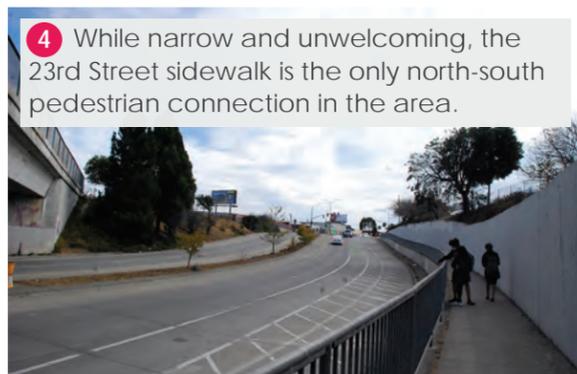
1 Narrow sidewalk with homeless encampments connects the Greenway to 23rd Street.



2 Trash and illegal dumping are common and often line sidewalks or intrude on walking spaces.



3 Walking north, the 23rd Street sidewalk connection is via a narrow staircase with no ADA-accessible option.



4 While narrow and unwelcoming, the 23rd Street sidewalk is the only north-south pedestrian connection in the area.



5 The sidewalk turns north of the BART tracks and connects back onto 22nd Street and Carlson Boulevard.



6 The sidewalk is narrow and has no lighting on the bridge over 23rd Street.

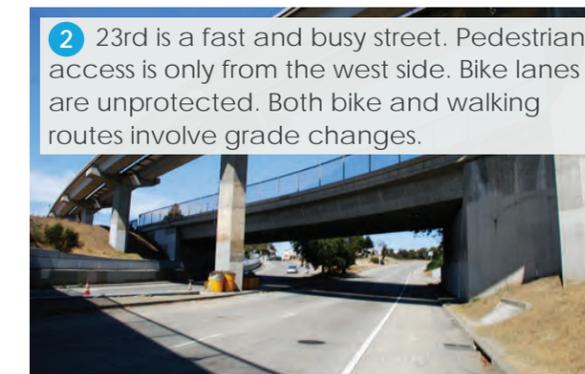


7 Pedestrians must then make four crossings through the Broadway/Carlson intersection to connect to the Greenway.

People **bicycling** across the Greenway Gap also navigate a circuitous and stressful route that is out of direction, confusing, and feels unsafe.



1 Without a bicycle path, bicyclists must ride on this narrow sidewalk with homeless encampments to connect to 23rd Street.



2 23rd is a fast and busy street. Pedestrian access is only from the west side. Bike lanes are unprotected. Both bike and walking routes involve grade changes.



3 Steep topography creates discomfort for slower moving bicyclists next to fast-moving cars.



4 Smooth pavement and buffered bike lanes on 24th Street provide a connection to the Greenway in both directions.



5 Broadway bike lane markings are faded and end abruptly at a busy intersection with Carlson.



6 Bicyclists must navigate through a porkchop island with high-speed northbound right-turns from Carlson to get to the Greenway.



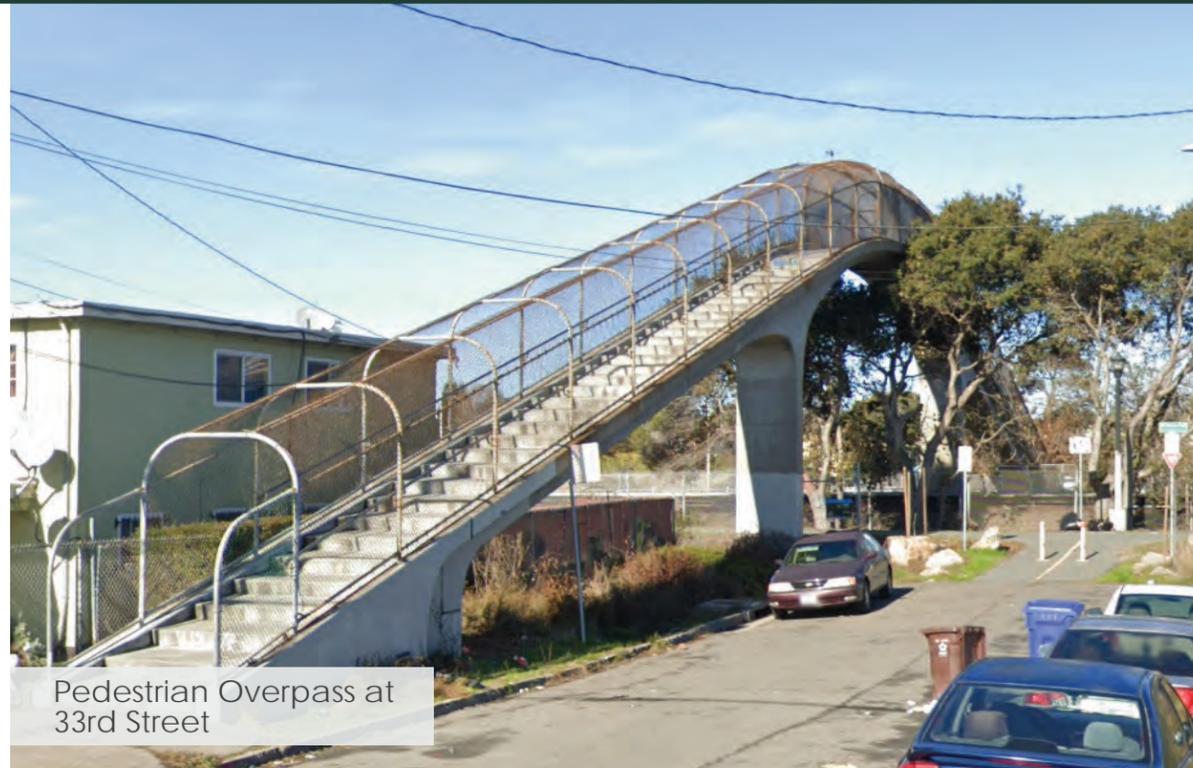
7 A wide, cracked sidewalk provides connection between the Greenway and the Broadway/Carlson intersection.

GETTING TO THE GREENWAY

While people can access the Greenway on foot, bike, bus, or car, people traveling by all modes face barriers in easily and safely accessing the Greenway, and there are opportunities to make these connections more comfortable, beautiful, and frequent.

THE EAST SIDE

On the east side of the Greenway, trail access is very limited: the trail cannot be accessed from the north because of the Greenway's northern wall, and many residential streets on the south do not connect to the Greenway. Some streets like 39th Street do not have curbs and sidewalks. There is a bridge that provides access at 33rd Street but the bridge has stairs, making it difficult to use for people with bikes and people with mobility impairments.



Pedestrian Overpass at 33rd Street



East side of the Greenway



Closed Access Point at 35th Street



Protected Bike Lane on Ohio Ave



Separated Bike Lane on Wellness Trail



Bike Boulevard on 16th St



Greenway access point on S 39th St without curb or sidewalk

THE WEST SIDE

The west side of the Greenway is more accessible to people walking and biking. There is an existing bike boulevard connection at 16th Street and many residential streets directly connect to the Greenway. The Richmond Wellness trail is also under construction and will connect BART, Senior and Affordable Housing developments, and other community destinations to the Greenway with a series of protected bike lanes and buffered bike lanes along 16th Street, 9th Street, Nevin Avenue, and Marina Way.

Although the west side of the Greenway has more access points for people walking and biking, people still face barriers in accessing the trail. The residential streets that provide access to the Greenway are often used for residential parking or experience drainage issues which people accessing the trail are forced to navigate around. These streets also have limited lighting which can create personal security concerns and prevent people from accessing the trail at night.

EXPERIENCE ON THE GREENWAY

The west side of the Greenway has seen more investment in parks and programming. The trail is lined with destinations like Unity Park, Harbor 8 Park, Dirt World, gardens and other park-like spaces that facilitate community gathering and contribute to a sense of openness on the western span of the trail. There have also been greater investments in trail amenities like pedestrian scale lighting that can improve trail users' sense of personal safety and security on the west side of the Greenway.



Gardens



Consistent Lighting

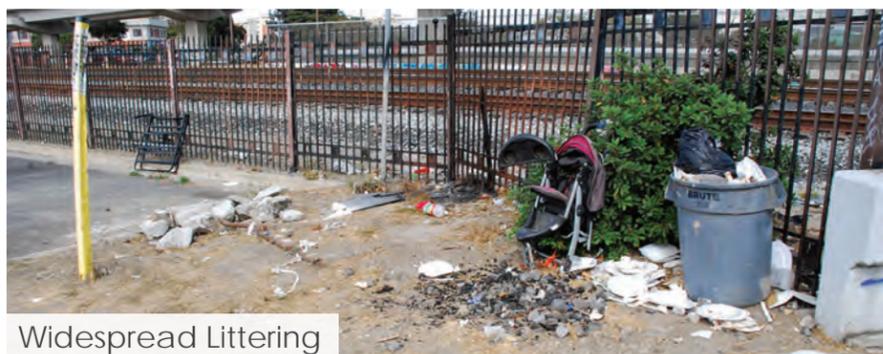


Soccer Field

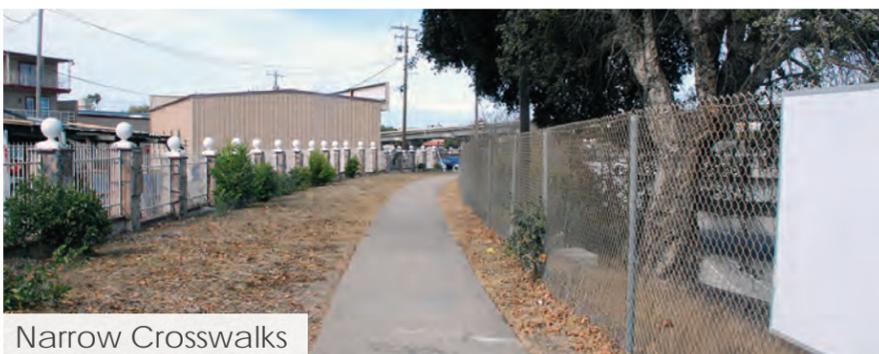


Outdoor Tables

On the east side, the Greenway is narrower, hemmed in between BART on the north side and fencing and homes on the south side. There are also limited north-south access points which can increase personal security concerns and contribute to the closed-in feeling of the east side of the Greenway. As compared to the western span of the Greenway, the eastern span has seen limited investment in lighting, parks, programming, and safe connections for people walking and biking.



Widespread Littering



Narrow Crosswalks

TRANSPORTATION SAFETY

Transportation safety concerns, as well as level of comfort of surroundings, can prevent people from accessing the Greenway and nearby streets. Macdonald Ave, Cutting Blvd, 23rd St, 22nd St, Carlson Blvd, and Harbour Wy South are on Richmond's High Injury Network. Between 2009 and 2018, 3 people were killed while walking, 3 people were severely injured while biking, and 10 people were severely injured while walking within a mile of the Greenway Gap. Many of these collisions were on roads parallel to the Greenway, including Cutting Blvd and MacDonald Ave, which are the only east-west connections across 23rd St because of the gap. Another 7 people were killed while crossing railroad tracks at Cutting Blvd. Closing the Greenway Gap would provide a safe railroad track crossing for people walking and biking, improving safety and connectivity for people traveling in the area.



Figure 12
High Injury Network and Collisions by Victim Type and Severity

Sources: Transportation Injury Mapping System (TIMS), 2009-2018. Federal Railroad Administration (FRA) Safety Map, 2009-2018. Note: Safety data is limited to those that are reported and often collisions involving marginalized victims are under-reported.

Collision Type

- Pedestrian Collision
- Bicyclist Collision
- Railroad Collision

Collision Severity

- Injury
- Severe Injury
- Fatality

Multimodal High Injury Network



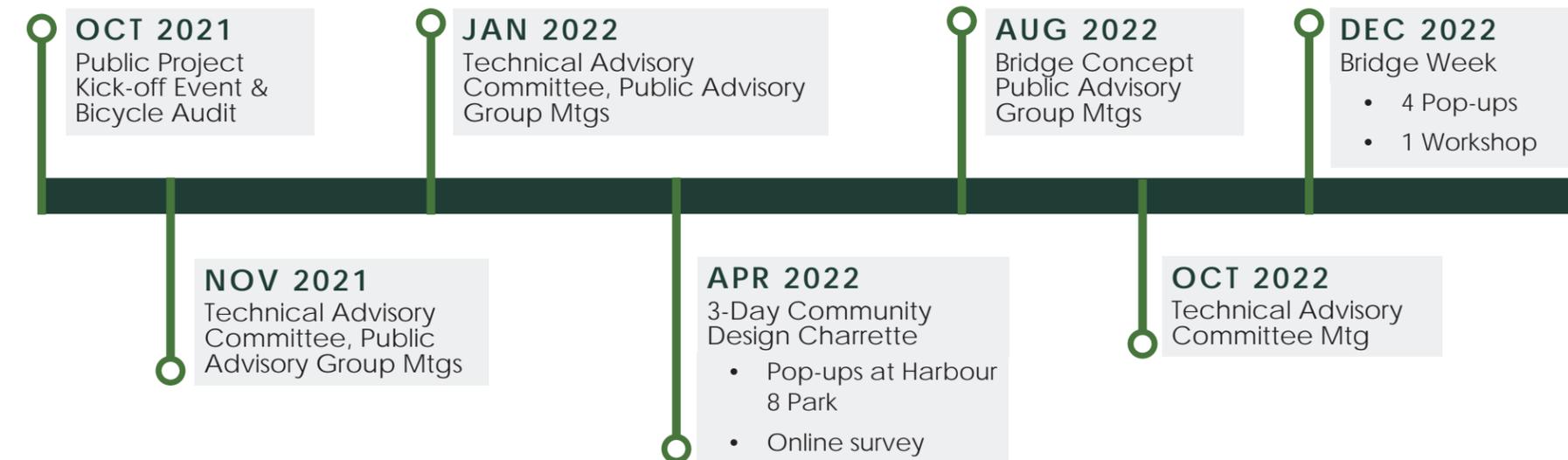
03

COMMUNITY ENGAGEMENT

Critical input from community members and technical stakeholders informed the direction and recommendations of the study.

3.1 Engagement Timeline

From October 2021 to December 2022, the Project Team engaged community members and leaders, businesses, and decision-makers from the City and from regional and technical agencies to inform this Study. The Project Team received extensive comments and feedback on a wide range of current challenges and proposed solutions to bridge the Greenway Gap.



3.2 Advisory Group Meetings

Two distinct Advisory Groups provided critical feedback in advance of broader public engagement: Community and Technical Stakeholders. Both Groups were instrumental in supporting the success of the planning process and the recommended solutions.

COMMUNITY ADVISORY GROUP

The Community Advisory Group included key residents and community members immediately surrounding the Greenway gap, including Groundwork Richmond, Dirt World, and the Friends of the Richmond Greenway, a group of local non-profit organizations with direct interest in the Greenway. Advisory Group meetings were held either virtually or in-person near the Greenway gap site as to be convenient for participants.

Friends of the Richmond Greenway (FORG)

FORG members were engaged directly throughout the course of the project and as part of wider public engagement efforts. Pogo Park gave project updates, requested feedback, and advertised engagement activities with support from FORG. Their feedback shaped public outreach methods, helped identify stakeholders to engage, clarified opportunities and issues along and near the Greenway gap, and drove the final design concept of the bridge. They were also instrumental collaborators to get the word out about engagement events. While FORG members support the Bridge design, they did raise concerns regarding cost.



Dirt World

Dirt World is a recreational bike facility located on the west side of the gap. Members of the Project Team met three times with Dirt World staff to discuss potential impacts to the Dirt World site and ways to mitigate these impacts, as well as Dirt World’s design preferences for the bridge. Dirt World’s concerns included:

- Dirt World is currently undergoing a major park renovation including improvements that are required to last for 30 years
- Bridge construction impacts to Dirt World runs and jumps, as well as circulation and emergency access, that would result in deviations from requirements set forth in agreements that Dirt World has in place with multiple grant funders
- Drainage issues
- Safety issues on the bridge
- The bike park serves to activate this segment of the greenway, making it safe, clean and green, so disruption of park usage would diminish neighborhood revitalization and community-building efforts
- Illegal dumping, vandalism, encampments, and flood hot spots are constant challenges on the site that volunteers work hard to remedy. Strategies are needed to address these problems on the future bridge.



Groundwork Richmond

Members of the Project Team met twice in 2022 with Groundwork Richmond staff. Groundwork Richmond manages a park site on the east side of the gap known as Carlson Meadow where trees, stormwater improvements, and other features would be impacted by the proposed bridge improvements. The Project Team discussed potential bridge impacts to Carlson Meadow and ways to mitigate these impacts. Groundwork Richmond’s concerns included:

- Impacts of the bridge to the Pullman Portal site, particularly, any changes to the site would deviate from requirements set forth in agreements that Groundwork Richmond has in place with multiple grant funders.
- Bridge placement that would make Carlson Meadow unusable
- Safety issues under the bridge



TECHNICAL STAKEHOLDER ADVISORY GROUP

The Technical Advisory group is comprised of local, regional, and other key agency representatives including the City of Richmond fire, police, homeless advisory group, public works, and planning staff, Caltrans District 4 staff, Dirt World, Bay Area Rapid Transit (BART), Metropolitan Transportation Commission (MTC), AC Transit, Bike East Bay, Contra Costa Transportation Agency (CCTA), West Contra Costa Transit Authority, and California Public Utilities Commission (CPUC). Technical advisory group members provided feedback to inform the development of the existing conditions report and guided recommendations shown before the public and in this Study. The Technical Working Group met virtually with the Project Team on three occasions in November 2021, January 2022, and October 2022.



3.3 Public Engagement

KICK-OFF POP-UP EVENT

The Project Team kicked-off community engagement in October 2021 by hosting a pop-up near the Greenway Gap at Dirt World. The Project Team provided boards with images of bridges and bicycle, pedestrian, parks, art and play improvements to inspire and solicit feedback from community members.



Toody Maher of Pogo Park leading a Kick-off Pop-up activity

Community members could use string on a 3D aerial map of the Greenway Gap to envision the direction and height of a bridge. A bicycle audit was led by the Project Team to tour the site. Additionally, the City took drone footage of the project site, which was used during future engagement activities and posted to the project website. Key feedback received during this event included:

- The bridge would increase use of the greenway as an active transportation route for locals and users regionally
- The bridge should include separate facilities for pedestrians and bicyclists
- The bridge design should not have too many features that are difficult to maintain, yet it should include art and speak to local values and culture
- Safety should be a priority, including design to discourage camping under the bridge and illegal activity through use of lighting and a maintained sightline across the bridge



PUBLICITY

All public events were advertised primarily through Pogo Park’s listserv of over 5,000 email contacts, door-to-door outreach, social media, press release, distribution and display of flyers at City facilities and via the Friends of the Richmond Greenway meetings and networks – in both English and Spanish. The City created a dedicated website where project updates, key documents, and event information was hosted. **Appendix A** includes a sample of fliers distributed for all public events.

COMMUNITY DESIGN CHARRETTE

The Project Team hosted a Community Design Charrette that took place from April 12-14, 2022 at Harbour 8 Park in Richmond. Approximately 20-40 people attended each day, including City of Richmond residents, those who use the greenway from neighboring communities, City of Richmond council members and staff, representatives of nearby businesses, advocacy organizations, and other stakeholders. The charrette focused on reviewing the transportation, parks, and bridge improvement options and facilitating hands-on bridge design as described below.

Day 1

Activities centered around **reviewing** preliminary ideas for short- and long-term transportation and parks improvements, as well as bridge design ideas. Participants reviewed a series of informational boards and provided input through a paper survey. An online version of the boards and the survey was also deployed so those who could not attend in person could provide feedback.



Day 2

Activities centered around **confirming potential solutions** to respond to community needs. Day 2 included interpreting feedback heard to-date and conducting one-on-one meetings with key stakeholders to troubleshoot potential solutions to be presented on Day 3. Focus group meetings were held with Groundwork Richmond and Pogo Park to troubleshoot take-off and landings, width, and design.





The City of Richmond's bird, the Osprey



Day 3

Activities centered around **refining the bridge design**. In addition to the boards and survey provided on Days 1 and 2, Donald MacDonald Architects led a brainstorming activity to determine the design inspiration for the bridge. During discussion, community members explored a range of Richmond-related metaphors to inspire the bridge design, including the Santa Fe Train, Unity, the Ohlone People, and Ospreys. The ultimate concept is inspired by the City of Richmond bird--the Osprey. Key takeaways from the feedback received included:

- The project's top priority should be to bridge the gap at 23rd Street
- The greenway trail and bridge should have protected paths for bicyclists and pedestrians
- On the west side of the gap, the bridge should be located on the north side of Dirt World. On the east side of the gap, the public was split between whether the bridge should be located closer or further from the BART tracks, though there was support for keeping Carlson Meadow as open as possible.
- The public preferred to maintain as many access routes as possible to get on/off the bridge, including at 23rd Street and Carlson Boulevard.
- Additional features on the bridge that were most desired included art, lighting, and landscaping.

BRIDGE WEEK

The final series of pop-ups were conducted in December 2022 to collect feedback on refined transportation and parks recommendations and the aspirational bridge design concept. Pogo Park and City staff displayed boards with short- and long-term recommendations for bicycle and pedestrian improvements, parks improvements, and the bridge design for feedback at a happy hour at Armistice Brewing Company, the Rich City Rides Gallery, Senior Center, the Richmond Farmer's Market and Unity Park.

BRIDGE WEEK SCHEDULE

MON 12/5	TUES 12/6	WED 12/7	THURS 12/8	FRI 12/9	SAT 12/10
Armistice Brewing Company	Rich City Rides	Senior Center	Q&A Presentation	Farmers Market	Unity Park



Q&A Presentation at the Nevin Community Center



Q&A Presentation at the Nevin Community Center - Community members engaging with a 3D tabletop map of the bridge

Key takeaways from the feedback received during the Bridge Week pop-up activities included:

- Overwhelming support for the aspirational bridge design concept. Participants felt that it was an important symbol for the community.
- Concerns included maintenance costs for the bridge, security, safety, and light pollution caused by the bridge lighting.
- Desire for amenities be added to the bridge in final design such as lighting and seating.
- A minority of comments expressed that money could be better spent if the bridge design was simplified and cost-savings were used for other community-benefit projects.



Q&A Presentation at the Nevin Community Center - Community members engaging with the boards showing the aspirational bridge design concept



Rich City Rides Pop-Up - Community members engaging with a 3D tabletop map of the bridge



Armistice Brewing Company - Community members engaging with the boards showing the aspirational bridge design concept



04

THE CONCEPT

The concept reflects a transformative vision for the future of the Richmond Greenway, pairing a bold bridge design with short- and long-term transportation and park improvements that will improve the Greenway experience and access for Richmond residents.

4.1 Bridge Concept

COMMUNITY-CENTERED DESIGN PROCESS

The Greenway Gap proposed bridge and street designs respond to community-identified mobility and access needs. The hallmark of the proposal is an iconic bridge to connect Richmond neighborhoods historically divided by infrastructure and serve as a gateway to Central Richmond. The bridge will connect the east and west areas of the Greenway, spanning over 23rd Street, Union Pacific railroad tracks, and Carlson Boulevard. It will also include several stairway access points in addition to the ramps on either side. The bridge itself is a literal connector – stitching together the Iron Triangle, Atchison Village, Coronado, and Pullman neighborhoods which have long been protected by railroad lines and high-speed streets. The creation of a bridge itself is a powerful symbol of connecting people and unity. The iconic bridge design celebrates Richmond’s connection to the water and natural environment drawing inspiration from ospreys that nest along the Richmond waterfront. The bridge would be packaged with a series of parks and transportation improvements to further enhance the Greenway and safe connections to it.

Community interest in a bridge reflecting the future of Richmond formed the foundation of the bridge concept. Specifically, some community members recommended that the design be inspired by the City of Richmond bird—the osprey. The resulting bridge concept design demonstrates a bold vision for the future of Richmond, celebrates Richmond’s shoreline ecology, and represents an impressive future landmark in the greater Bay Area.

Community members also provided feedback on the bridge alignment (see **Appendix B** for the bridge alignments considered). There was strong community support for a northern alignment, which keeps the bridge away from residences on the south side of the Greenway while maximizing space at Carlson Meadow for it to continue as a wide open space to the east. The bridge will enhance access to the Dirt World site on the western Greenway and support circulation between the different jump sites.

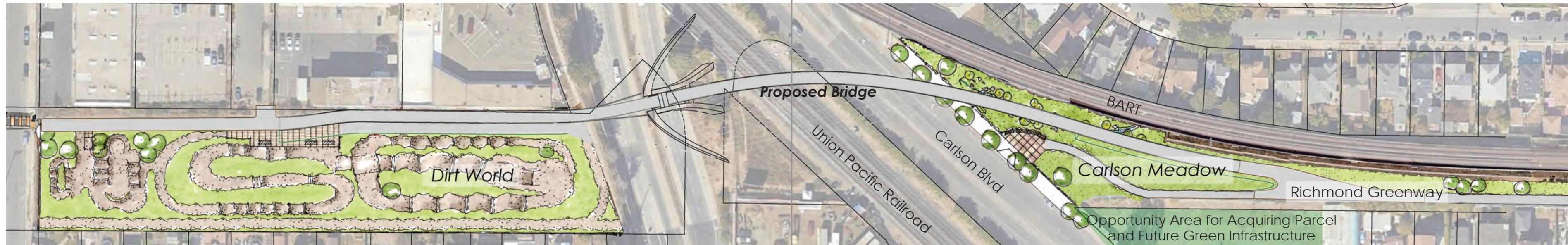


Figure 13
Bridge Concept

The federal funding landscape is currently strong as a result of bills like the Infrastructure Investment and Jobs Act, which provide a once-in-a-generation funding opportunity. However, if the City is not successful in securing funds in the next five years or if new engineering or environmental feasibility constraints substantially escalate costs, it will make it difficult for the City to advance a bold design vision for the bridge. In that scenario, scaling back the bridge design should be considered.

DIRT WORLD

Enthusiasts of all ages from all over the Bay Area bring their BMX and mountain bikes to Dirt World to build skills, get exercise, and have fun on the pump tracks, jump lines and BMX race track. This beloved park has been an important consideration throughout the bridge concept process and engagement with the Dirt World team informed the final concept. While the bridge will play a critical role in providing biking and walking access to Dirt World, construction of the bridge is expected to affect operations and use of the park facilities. Dirt World will continue to be a key partner during the final design and construction process to ensure users can continue to access and use the park. To mitigate these concerns, temporary facilities or operating plans during the construction period and support in securing long-term funds to enhance Dirt World will be needed. As described in detail in Chapter 5, funding to enhance Dirt World and mitigate any negative impacts to Dirt World before, during and after bridge construction must be secured in addition to bridge funding.

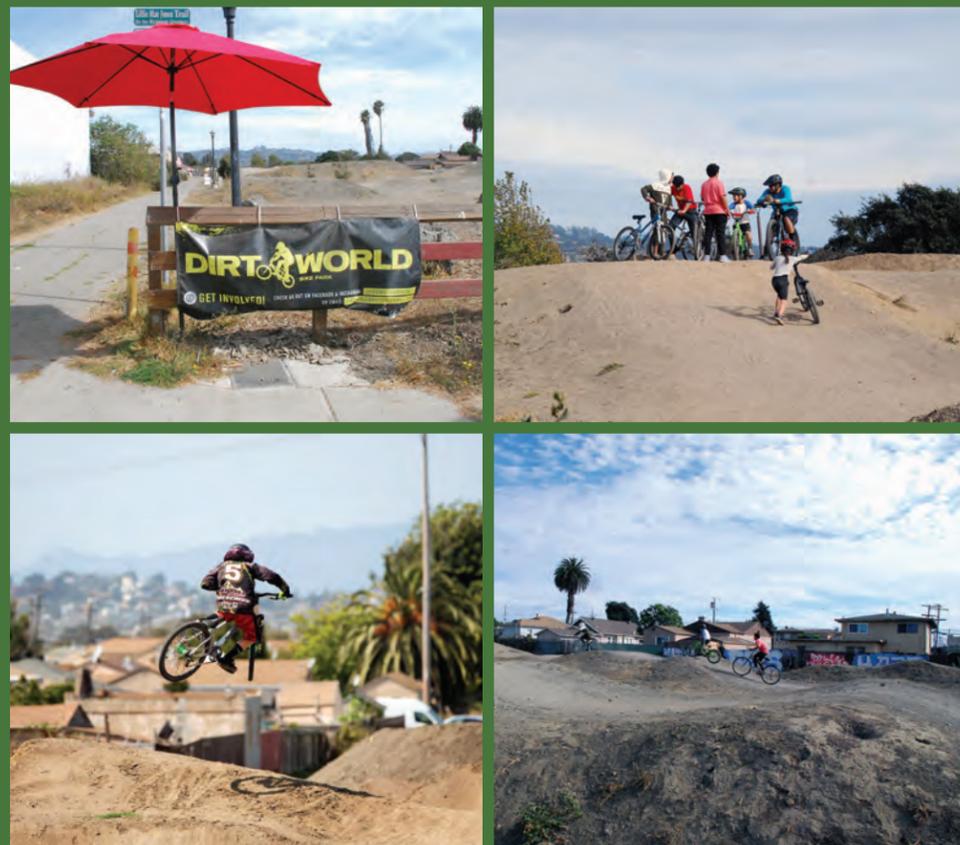


Figure 14
Bridge Concept Rendering, Looking North with 23rd Street in the Foreground



Figure 15
Bridge Concept Rendering, Looking West



Figure 16
Bridge Concept Rendering, Carlson Meadow Looking West



Figure 17
Bridge Concept Rendering, Dirt World Looking East

4.2 Greenway Concepts

This study recommends both near-term and long-term improvements to the Greenway itself by installing park amenities such as seating and drinking fountains that would improve comfort and accessibility for park users. Improvements like emergency call boxes and lighting would also contribute to improved personal security for people traveling across the Greenway. The study would also address existing access issues at cul-de-sacs and would address challenges like drainage issues with landscaping and bioretention.



Visual examples of site amenities. Left to right: ADA drinking fountain/bottle filler, pet waste station, emergency call box, picnic benches and tables, trash/recycle receptacle.



Figure 18
Greenway Improvements

4.3 Street Concepts

STREET IMPROVEMENTS OVERVIEW

Beyond constructing a bridge across the Greenway Gap, street improvements are needed to provide safe connections for people walking or biking to and from the Greenway. Improvements are planned for the area west of Harbor Way, North of Ohio Avenue, South of Macdonald Avenue, and West of San Pablo Avenue.

Improvements for people biking will include key safety and access improvements, such as installing protected bike lanes and closing bike lane gaps, implementing bike boulevards, and enhancing connections between the bikeway network at the Greenway.

Pedestrian improvements will include crosswalk enhancements, new bulbouts to shorten crossing distances, adding missing crosswalks, and increasing the number of access points to the Greenway from neighborhood streets. The Nicholl Park bridge will also be retrofitted to address security and accessibility issues.

Crossing Improvements

Crossing improvements will include bulbouts, new crosswalks, and other crosswalk improvements. Locations include Ohio Ave at 13th St, Marina Wy, 15th St, 17th St, 19th St, 20th St, and 23rd St; Chanslor Ave at 20th St; and Richmond Greenway at 20th St.



Neighborhood Traffic Calming

Neighborhood traffic calming will include elements like speed humps or tables, traffic circles, and raised intersections. Bike boulevards are considered on streets that have traffic calming treatments. Locations include 16th Street, Center Ave, 33rd St, and 45th St.

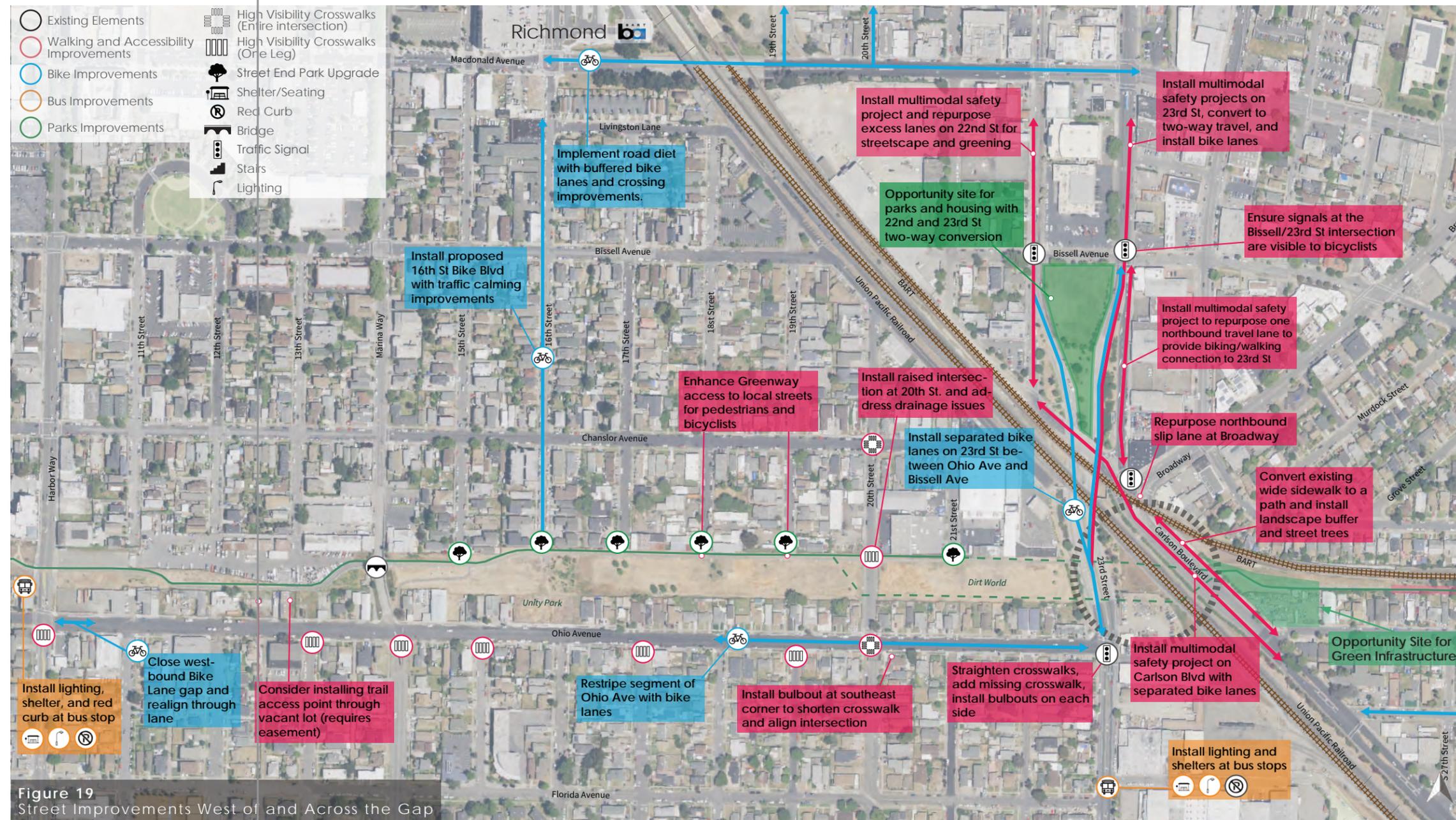


Figure 19 Street Improvements West of and Across the Gap

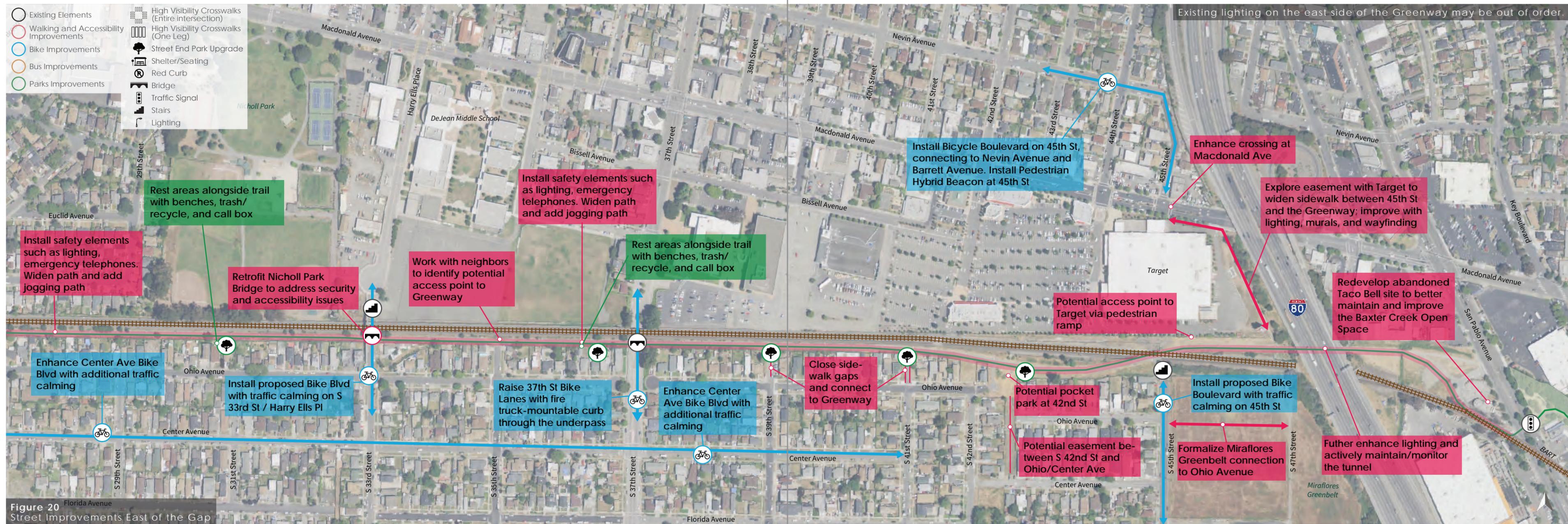


Figure 20 Street Improvements East of the Gap

OVERALL STREET DESIGN CONCEPTS

Near-Term

Given the importance of improving safety and alleviating the challenges people face in crossing the gap today, near-term improvements that can be constructed more quickly are recommended. These include lower-cost striping and signage installations (sometimes called “quick build”) that can readily be installed. Near-term improvements include enhancing the existing bikeway gap connection through installing quick build protected bike lanes on 23rd Street, Carlson Boulevard, and Bissell Avenue to improve comfort for people riding their bikes and reducing vehicle speeds and conflicts with people walking. These improvements assume repurposing vehicular travel lanes on 23rd Street and Carlson Boulevard and parking removal on Bissell Avenue.

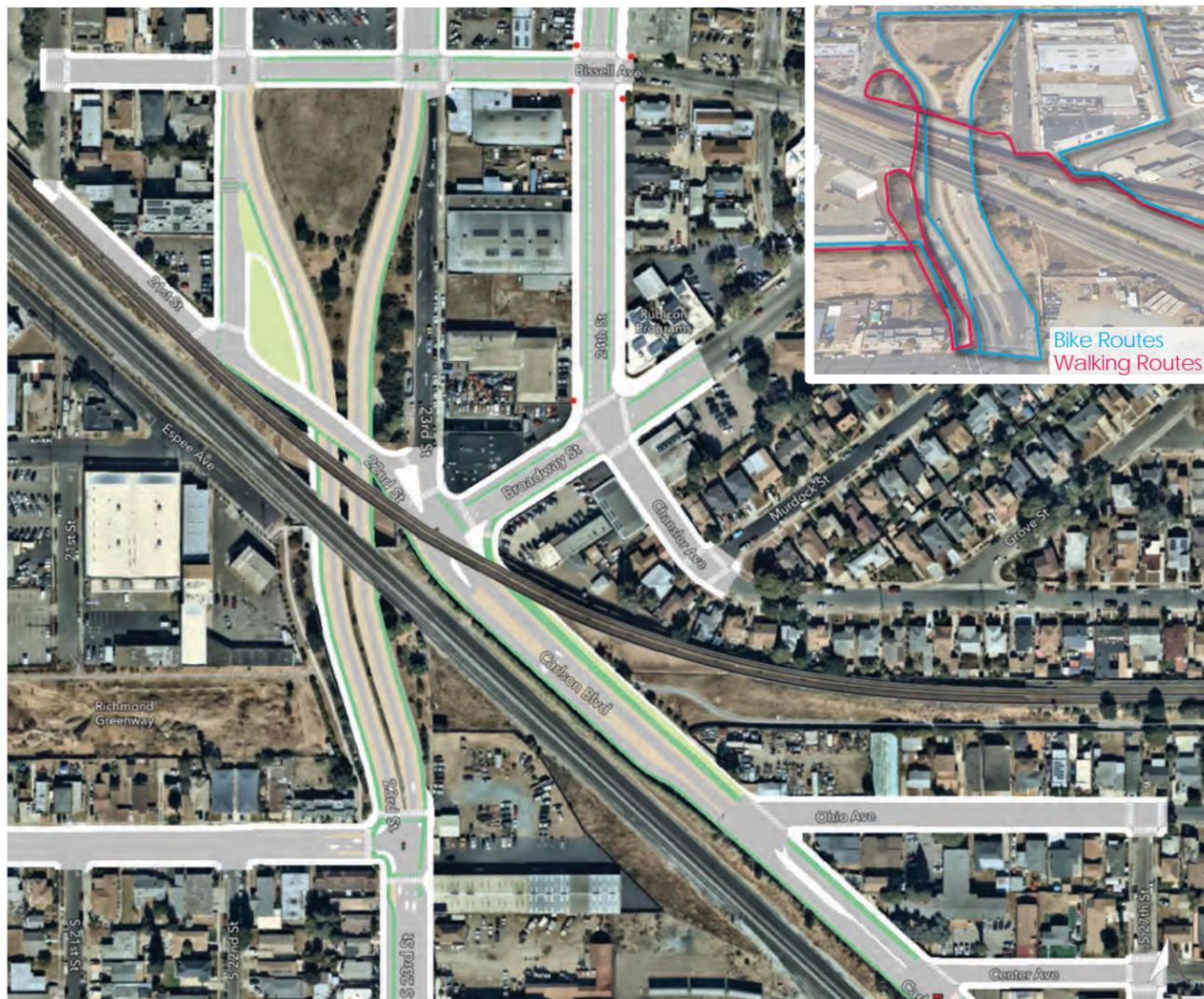


Figure 21
Near-Term Street Improvements

Long-Term

Long-term improvements will involve more substantial circulation changes on 23rd Street and Carlson Boulevard that will repurpose existing vehicle travel lanes for biking and intersection improvements to enhance safety and comfort for people walking and biking. Long-term enhancements also include landscaping upgrades, including installing landscaped bike lane buffers, planting additional street trees, and improving landscaping at the residential cul-de-sacs that provide access to the Greenway.



Figure 22
Long-Term Street Improvements

23RD STREET

Near-Term



Figure 23
23rd Street Near-Term Improvements

In the near-term, 23rd Street would see several improvements, including quick-build protected bike lanes between Bissell Avenue and Ohio Avenue. This requires one travel lane in each direction to be repurposed. A quick build protected intersection would be installed at Ohio Avenue/23rd Street to enhance the pedestrian crosswalks and support bicyclists turning onto and off of the Greenway from 23rd Street. These near-term improvements would also improve access to a large, undeveloped parcel at the intersection of 23rd Street and Bissell Avenue that could be an opportunity site for a park and/or housing. This change in cross-section should also be continued north of Bissell Avenue by repurposing the third travel lane for protected bike lanes on 22nd and 23rd Streets.

Long-Term



Figure 24
23rd Street Long-Term Improvements

In the long-term, the southbound portion of the existing roadway will be closed to vehicles and converted to a two-way protected bike lane facility with landscaping between Bissell Avenue and Ohio Avenue. The northbound portion of the existing roadway will be converted to a two-way vehicular travel lane, with one travel in each direction. This would align with the City's future plans to convert 23rd Street to a two-way street north of Bissell Avenue.

CARLSON BOULEVARD

Near-Term



Figure 25
Carlson Boulevard Near-Term Improvements

In the near-term, the City can repurpose vehicular travel lanes to provide protected bike lanes between Broadway and Ohio Avenue. On the east side of the street, two-way bike access can be provided between Broadway and the Greenway, as this is an important route in both directions north to Central Richmond. South of Ohio Avenue where there is a raised median, buffered bike lanes can continue south to Cutting Boulevard, which may be necessary due to fire department-required clear widths on either side of the raised median. Near-term changes to Carlson Boulevard include repurposing the northbound right-turn lane to accommodate a two-way bikeway and reducing the number of travel lanes to a single lane in each direction. A buffered bike lane will also be built in the southbound direction. The northbound slip lane at Carlson and Broadway will also be repurposed to be useable by bicyclists only.

Long-Term



Figure 26
Carlson Boulevard Long-Term Improvements

With additional funding, the streetscape can be enhanced to create a safe, welcoming gateway to the Greenway that provides a landscape buffer including green infrastructure plus two rows of shade trees to protect people walking and biking from the sun and buffer them from traffic. A two-way bicycle path is proposed alongside the wide sidewalk, landscaped buffer separating the bikeway and walkway. The two-way protected bike lanes will continue on the east side of the street to Center Avenue, south of which directional buffered bike lanes will be installed. A pedestrian hybrid beacon (PHB) will be installed to call attention to people biking and enhance the crosswalk at this existing bus stop.

HARBOUR WAY / OHIO AVENUE

Near-Term or Long-Term



Figure 27
Harbour Way/Ohio Avenue Improvements

The intersection of Harbour Way and Ohio Avenue will also be redesigned. Today, there is a severe offset at the intersection, with the eastbound vehicular lane aligned with the westbound vehicular lane. Medians will be installed to correct the offset. Right-turn lanes will be removed and the bike lane gaps will be closed to connect Harbour Way and Ohio Avenue. High visibility crosswalks will also be painted at the intersection, and a median refuge will be installed on Ohio Avenue.



05

IMPLEMENTATION AND FUNDING

Implementing the vision for the Greenway will require securing significant bridge, parks, and transportation funding, and will involve ongoing collaboration between the City and agency and community partners.

IMPLEMENTATION NEXT STEPS

There are three key steps to implement the community's vision to connect the Richmond Greenway Gap.

Seeking Funding

First, the City will actively seek funding for the bridge, transportation, and park improvements within the next five years. Construction for the bridge is estimated to cost between \$30 to \$40 million. Potential funding sources are listed in the table ahead. If the City is unable to secure substantial funding within the next five years, consideration should be given to downscaling the bridge concept to better align with the funding landscape.

Coordination with City and Stakeholders

Second, City staff will coordinate with local and regional stakeholders to identify and implement a financing mechanism for on-going bridge maintenance. A funding mechanism to support maintenance of the Greenway – inclusive of a future bridge - as a citywide and even regional resource will help ensure the Greenway is a thriving place that people love to visit for years to come. Without this, it will be challenging to keep the bridge and Greenway clean and safe for Richmond residents to use. This funding could also be used to support maintenance of Dirt World.



Investing in Dirt World

Finally, the City will continue to collaborate with community members throughout the implementation of the Greenway Gap Closure Study. Given the expected impact of bridge construction on Dirt World, it will be critical to partner with Dirt World to pursue mitigation funding and develop a mitigation plan for construction-related impacts to the park and park access. This mitigation plan may consider temporary adjustments to Dirt World circulation during bridge construction. It may also be necessary to dedicate a portion of park improvement funding to Dirt World.



Other cities in Contra Costa County have adopted Benefit Assessment Districts to fund infrastructure maintenance. The City of El Cerrito adopted a Landscape & Lighting Assessment District (LLAD) in 1988 to provide funding for the maintenance of parks, landscaping, and streetlighting throughout the City. The assessment is levied on all residential and commercial properties in the City and generates approximately \$771,000 annually.

POTENTIAL FUNDING SOURCES

There are a wide range of funding opportunities that the City and its partners can pursue to fund both construction and maintenance of the improvements proposed in this study.

Final Design and Construction Funding Sources

Grant	Source	Lead Agency	Description	Bridge	Transportation	Parks
RAISE Grants	Federal: US DOT	City of Richmond, WCCTAC, CCTA	Funds capital projects that make transportation systems safer, more accessible, more affordable, and more sustainable	✓		
Active Transportation Program (ATP)	State: Caltrans	City of Richmond	Funds projects that encourage travel by active modes of transportation	✓	✓	
Measure J Funding	County: CCTA	City of Richmond	Funds countywide and local transportation projects including the Transportation for Livable Communities Project Grants Program and the Pedestrian Bicycle and Trail Facilities program	✓	✓	
One Bay Area Grant	Regional: MTC	City of Richmond	Funds projects that improve safety, spur economic development and help the Bay Area meet climate change and air quality improvement goals	✓	✓	
Solutions for Congested Corridors Program	State: Caltrans	City of Richmond, WCCTAC, CCTA	Funds projects to increase transportation choices while preserving the local character of communities. Must be included in a Comprehensive Multimodal Corridor Plan.	✓	✓	
Clean California Local Grant Program	State: Caltrans	City of Richmond, WCCTAC, CCTA	Funds projects to beautify and clean up local streets and roads, tribal lands, parks, pathways, transit centers, and other public spaces.		✓	✓
Sustainable Transportation Equity Project	State: CARB	City of Richmond, WCCTAC, CCTA	Funds projects that address transportation needs, increase access to key destinations, and reduce greenhouse gases through clean transportation projects	✓	✓	

Grant	Source	Lead Agency	Description	Bridge	Transportation	Parks
Reconnecting Communities Pilot Program	Federal: US DOT	City of Richmond, WCCTAC, CCTA	Funds projects dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure	✓	✓	
Transformative Climate Communities	State: CARB	City of Richmond	Funds community-led development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities	✓	✓	
SB 1 Local Streets and Roads Program (LRSP)	State: Caltrans	City of Richmond, CCTA	Funds basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system	✓	✓	
SB 1 Local Partnership Program (LPP)	State: Caltrans	City of Richmond, CCTA	Funds road maintenance and rehabilitation, sound walls, and active transportation projects in jurisdictions that have passed sales tax measures, developer fees, or other imposed transportation fees.	✓	✓	
Urban Greening Grant	State: CNRA/ CARB	City of Richmond, MTC	Funds urban greening projects that will reduce greenhouse gas emissions and provide multiple additional environmental benefits			✓
Per Capita Grant Program	State: California State Parks	City of Richmond	Funds projects to acquire, develop, improve, or enhance local parks and recreational lands and facilities			✓
Roberti-Z'Berg Harris (RZH) Grant Program	State: California State Parks	City of Richmond	Funds projects to acquire or rehabilitate park lands and facilities, undertake special major maintenance of parks, and innovative recreation programs			✓
Recreational Trails Program	State: California State Parks	City of Richmond	Funds recreational trails and trail related projects		✓	✓
Cal Fire Urban and Community Forestry Grant Programs	State: Cal Fire	City of Richmond, MTC	Funds projects to create or implement multi-benefit projects with a focus on reducing greenhouse gas emissions and providing benefits to disadvantaged communities			✓

Maintenance Funding Sources

The bridge will serve residents across the greater Bay Area and the ongoing maintenance of the bridge should be a regional effort. At the city level, an option to fund long-term bridge maintenance is to establish a Benefit Assessment District. Benefit Assessment Districts are established for a specific geographical area to fund public improvements and services in areas such as lighting, sewer, and landscaping. Benefit Assessment Districts are funded through a property assessment and as a result require approval from the majority of impacted property owners.

Given the range of potential options to finance long-term bridge maintenance, City staff should continue to partner with regional agencies and key local stakeholders to determine which financing options are the most feasible and likely to have broad support from Richmond residents.

Revenue Type	Description	Use of Funds	Potential Funding Sponsors
Enhanced Infrastructure Financing Districts (EIFD)	EIFDs allow for a separate government entity to be created by a city or county within a defined area to finance infrastructure projects with community-wide benefits.	Capital and some EIFD planning activities; can also be used to pay back bonds	City, County
Community Facilities Districts	Community Facilities Districts are special tax districts where property owners in a specified geographic area impose a property tax to fund services, public improvements or infrastructure	Capital and Operating (Services)	City, County
Tax Increment Financing (TIF)	Tax increment financing freezes the property tax revenues that flow from a designated project area to the city, county, or other taxing entity at the "base level" in the current year. Future year tax revenue above the base level is diverted into a separate revenue pool that can be used to pay for public improvements or repay bonds	Capital and some EIFD planning activities; can also be used to pay back bonds	City, County
Property Based Business Improvement Districts (PBID)	A self-imposed and self-governed property tax assessment that augments base level services. Uses are limited to those specified during the formation of the PBID.	Capital and Operating	Property Owner (with Cities, County)



APPENDIX A

RICHMOND GREENWAY GAP CLOSURE AND CONNECTIVITY STUDY

The Richmond Greenway Gap Closure and Connectivity Study is just getting underway with the support of a Caltrans Sustainable Communities Grant. Join us to help envision short-term and long-term solutions to bridge the gap. One of the possible long-term ways to bridge the gap could include a bike and pedestrian bridge.

About the Gap and Past Efforts to Improve the Trail

The Greenway is currently divided by an active railway, 23rd Street, and Carlson Boulevard. For most trail users navigating these barriers is so complicated and unsafe that they avoid it altogether.

The paved trail was installed in two segments in 2007 and 2009, but it was not possible at the time to connect the two halves across the barriers that separate the route. In 2018, the eastern end of the Richmond Greenway was joined to the Ohlone Greenway that runs along the BART corridor through El Cerrito, Albany, and Berkeley. With the opening of the multi-use path on the Richmond-San Rafael Bridge, protected bike lanes were built along Ohio Avenue, connecting the western end of the Greenway to the San Francisco Bay Trail. The cycletrack continues on South Garrard Blvd to Point Richmond and a new Class I path that connects to the Bridge.



Portions of the trail are evolving with built and planned parks that include places for children's play, recreation, community gathering areas, and multi-benefit green infrastructure.

These projects have capped acres of contaminated soil and provided opportunities for health and wellness and active transportation. 17 community groups have activated the Greenway who manage their adopt-a-spots. Over \$8 million in funding has already been invested in the development of Harbour-8 Park, Unity Park, and Dirt World Bike Park and \$12 million in additional funding is currently pending for the completion of these parks.

Much of the Greenway, however, remains undeveloped with vacant land and constrained spaces in need of clean up, landscaping and improvements. Due to lack of continuity, areas not frequented by trail users or activated by outdoor recreation have suffered from overgrown weeds, discarded trash and graffiti. Bicyclists and pedestrians worry about safety along the trail.

What we are doing now to bridge the gap!

Bridging the Greenway Gap at 23rd Street and the railroad tracks will remove the last major barrier to a continuous multi-use trail and greenspace for Richmond residents, connecting the community from Berkeley to Marin County. This project will build upon existing planning efforts, partnerships and collaborations to study and develop viable alternatives to close the gap and provide a safe, seamless active transportation route across Richmond. It will leverage the nearly \$20 million in recent local investments in Greenway landscaping and park infrastructure to improve livability in Richmond. Because of the difficulty bridging the two halves of the Greenway, a shared vision and implementation strategy must be developed to bridge the gap effectively.

Short term improvements may include special signage and on-street route and safety improvements. Long term improvements may include construction of a pedestrian and bicycle overpass directly connecting the west and east spans of the Richmond Greenway. Alternatives for short and long term solutions will be developed, evaluated for cost and feasibility, and organized into a comprehensive strategy to identify and obtain funding for full design, approval, and construction.

TIMELINE

August 2021 - End of 2022

October 2021 - July 2022: Community Outreach & Engagement Activities

June - End of 2022: Draft, Final Plan Development & Adoption by Richmond City Council



RICHMOND GREENWAY GAP STUDY



The Richmond Greenway Gap project team is looking for improvements to safety, walking, biking, parks, art, and other solutions, including a bridge, to connect the Richmond Greenway “Gap” at 23rd Street.

About the Gap and Past Efforts to Improve the Trail

The Greenway is currently divided by railroad tracks, and streets, requiring users to exit the trail and travel over a ½ mile out of direction on a circuitous route with complicated intersections, stairs, and difficult crossings in order to continue their journey on the trail. This is the last remaining gap in the Greenway - a regional route connecting Marin County with the East Bay. In Richmond, the Greenway serves densely populated, marginalized neighborhoods across the core of the City.



What we are doing now to bridge the gap?

This project will build upon existing planning efforts, partnerships, and collaborations to study and develop viable alternatives to close the gap and provide a safe, seamless active transportation route across Richmond. It will leverage the nearly \$20 million in recent local investments in Greenway landscaping and park infrastructure to improve livability in Richmond.

Short-term improvements may include special signage and on-street safety improvements. Long-term improvements may include the construction of a pedestrian and bicycle overpass directly connecting the west and east spans of the Richmond Greenway. Alternatives for short and long-term solutions will be developed, evaluated for cost and feasibility, and organized into a strategy to identify and obtain funding for full design and construction.

Timeline

- October 2021 - July 2022: Community Outreach & Engagement Activities
- June - End of 2022: Draft, Final Plan Development & Adoption by Richmond City Council

How to get Involved

We'd like to hear what you think about potential improvements at and near the Richmond Greenway Gap. Please complete this brief survey: <https://fs27.formsite.com/6Dqgcx/GreenwayGapChartte/index.html>

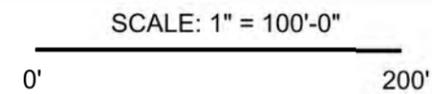
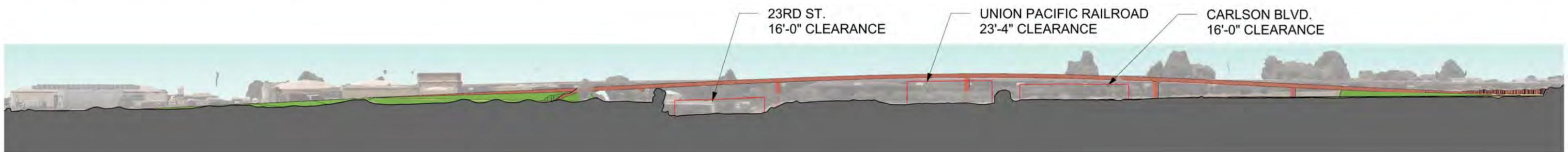
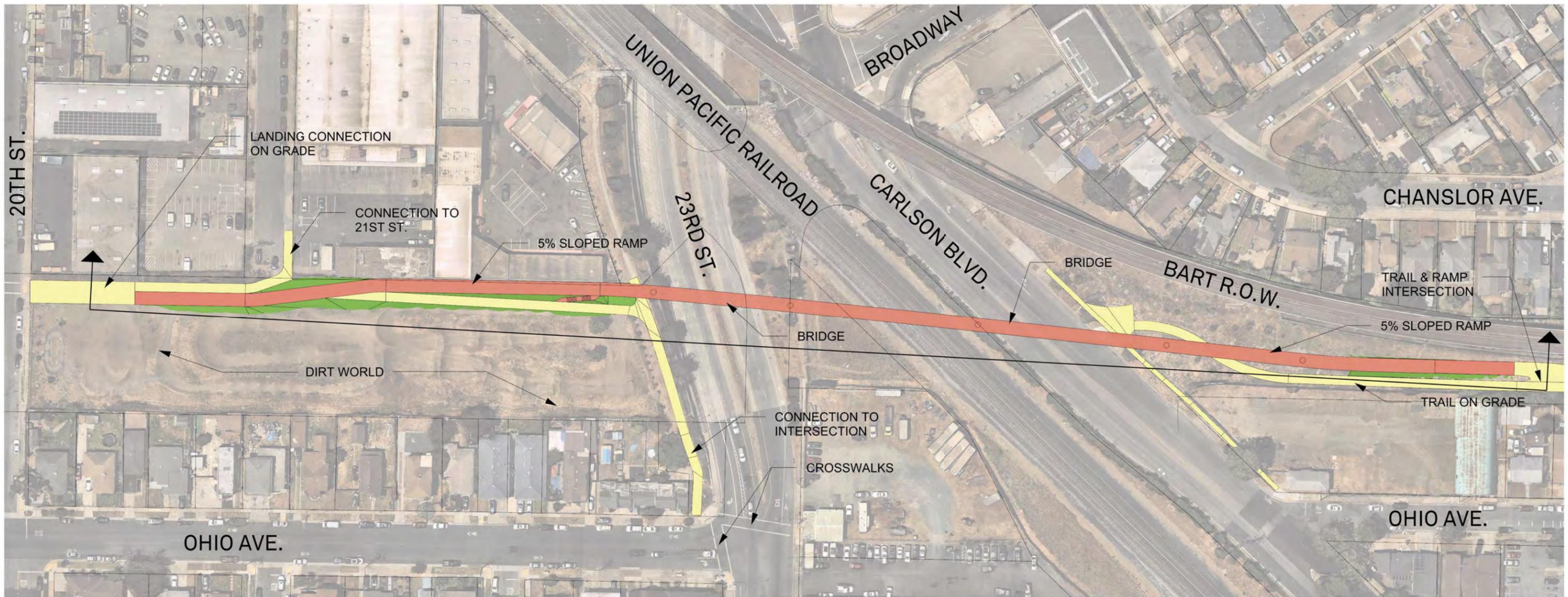
For more information about the Richmond Greenway Gap Study project, future events, and ways to get involved, please visit <https://bit.ly/3uCqoFy>





APPENDIX B

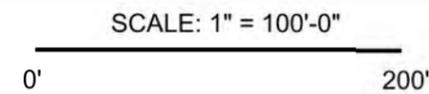
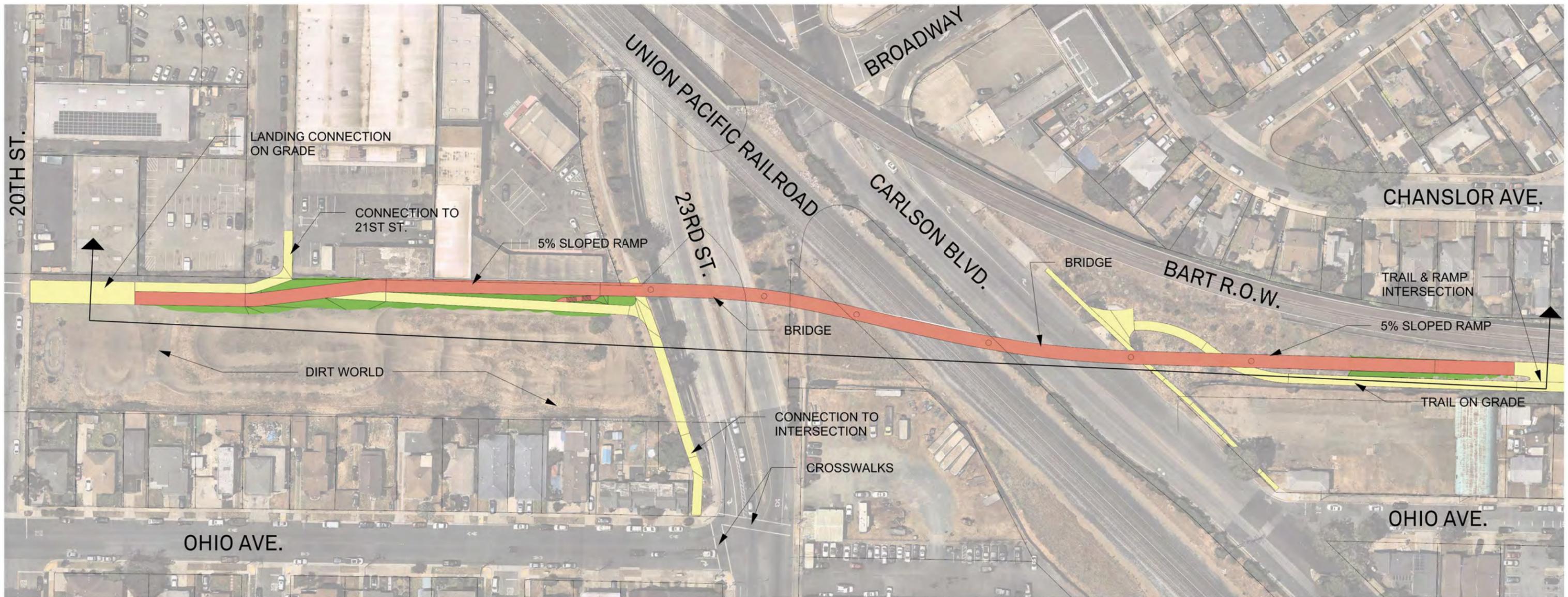
ALIGNMENT 01 - STRAIGHT CONFIGURATION



MATERIALS LEGEND

	RECONFIGURED TRAIL AT GRADE
	AERIAL OR MSE SUPPORTED STRUCTURE

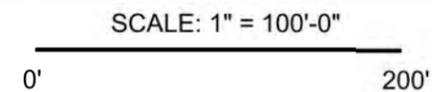
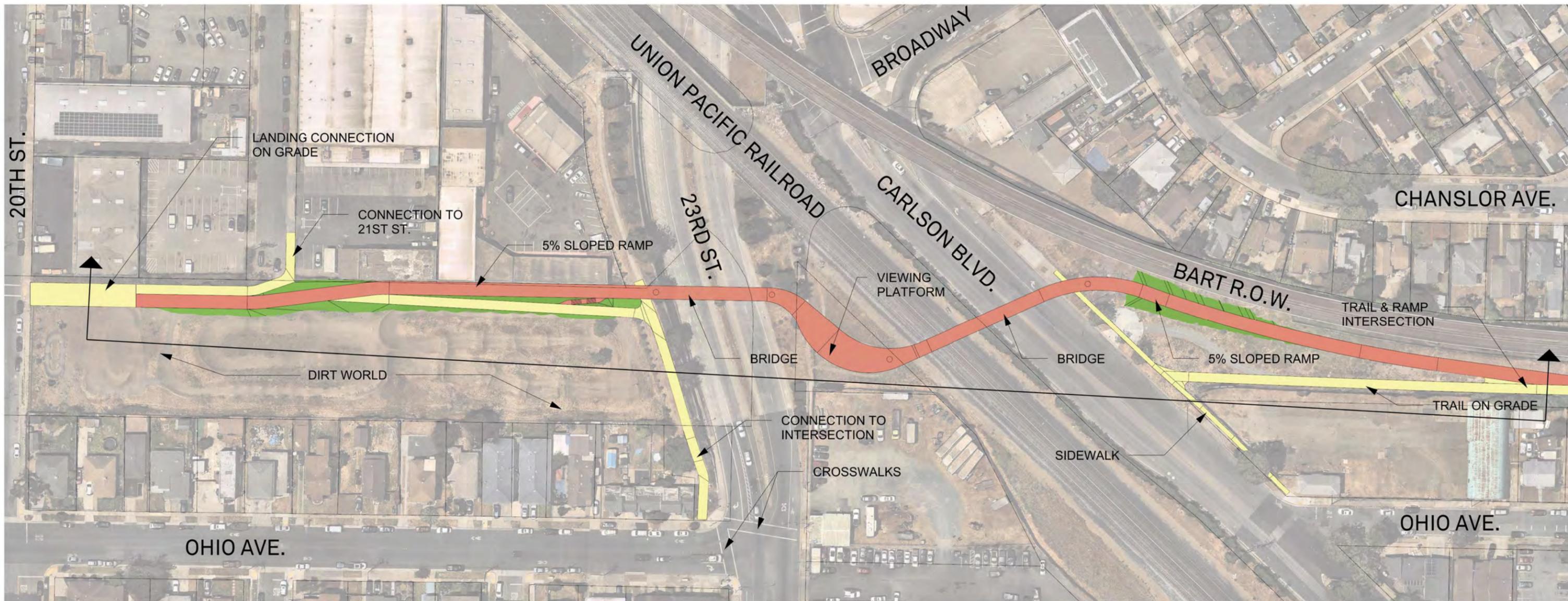
ALIGNMENT 02 - S CURVE CONFIGURATION



MATERIALS LEGEND

	RECONFIGURED TRAIL AT GRADE
	AERIAL OR MSE SUPPORTED STRUCTURE

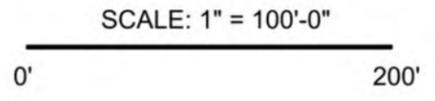
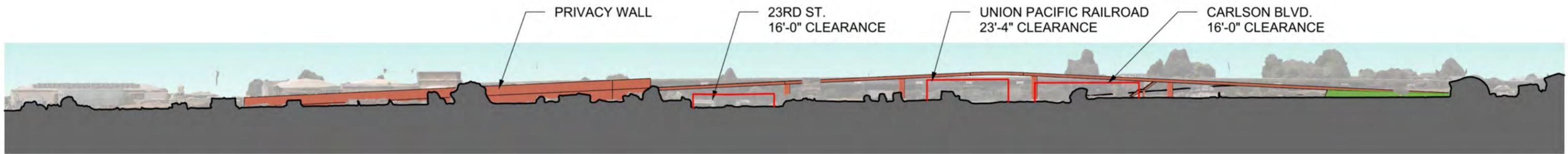
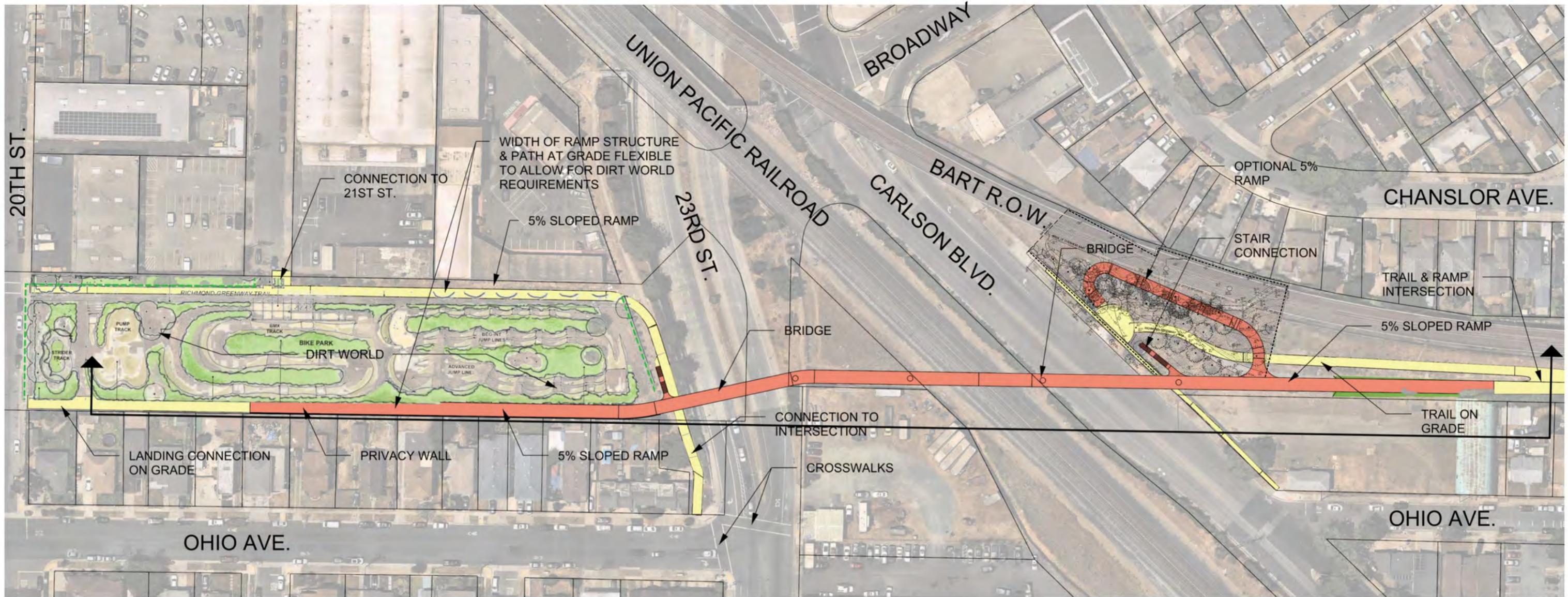
ALIGNMENT 03 - R.O.W. PERPENDICULAR CONFIGURATION



MATERIALS LEGEND

■	RECONFIGURED TRAIL AT GRADE
■	AERIAL OR MSE SUPPORTED STRUCTURE

ALIGNMENT 04 - SOUTH ALIGNMENT OPTION



MATERIALS LEGEND

	RECONFIGURED TRAIL AT GRADE
	AERIAL OR MSE SUPPORTED STRUCTURE