

Grand Avenue Mobility Plan



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OAKLAND, CA

Grand Avenue Mobility Plan

1 | Introduction



“In a rapidly changing city, how do we design a corridor that improves safety for all users and enhances convenience and sustainability, while reducing confusion on the street, minimizing frustration with building and investing in transportation that is not for existing communities, and eliminates the fear of displacement... how do we address it?”

- Brian Beveridge, West Oakland Environmental Indicators Project

Acknowledgement

The Grand Avenue Mobility Plan concerns land that is the occupied territory of the Ohlone (Costanoan) People.

Community Engagement

To start to build an equitable planning process, the team identified deliberate community engagement strategies that prioritized historically underserved communities along the Grand Avenue corridor. This included learning which communities have received the most attention and investment. In the case of Grand Avenue, the Adam's Point and Downtown/Uptown neighborhoods are generally more affluent, have had the loudest voices in civic processes, and also received more recent public investments than West Oakland. Along with the challenges it takes to build trust with disenfranchised communities, the COVID-19 pandemic made it difficult to meet with Oaklanders as originally envisioned. The team adapted the three engagement phases, Listen, Collaborate, and Refine, as interactive virtual-open houses and looked to hyperlocal community based organizations to target engagement in West Oakland, consistent with Alameda County COVID-19 guidelines.

The team understood that an online engagement platform is an effective way to reach a lot of Oaklanders from the convenience of their computer or phone. However, the virtual-open house is not an inclusive tool to reach the underserved communities of West Oakland. The long history of disinvestment and racist policy and planning have resulted in distrust and skepticism of local government among some residents.

One method for the city to begin building trust with communities is to partner with trusted liaisons in the community, such as existing community organizations. The team devoted additional resources to hire three community-based organizations that focus on facilitating and creatively engaging with West Oaklanders. These community-based organizations not only represent the community, but help bring the city representatives and communities together.

Their intention is to uplift the voices of the most vulnerable communities and to hold the city accountable to ensure the plan is representative of disadvantaged Oaklanders. The City of Oakland Department of Transportation (OakDOT) partnered and paid the following community-based organizations to help ensure the planning process is equitable and elevates the needs of historically underrepresented West Oakland residents.

West Oakland Environmental Indicators Project

The West Oakland Environmental Indicators Project (WOEIP) is a resident led, community-based environmental justice organization dedicated to achieving healthy homes, healthy jobs, and healthy neighborhoods for all who live, work, learn, and play in West Oakland, California.

On the Grand Avenue Mobility Plan the WOEIP team applied their Collaborative Problem-Solving model, a blueprint for how local communities can bring diverse stakeholders together to drive on-the-ground change. WOEIP led and facilitated virtual transportation planning orientations, to introduce planning concepts and the plan broadly, and led focus group meetings targeting underrepresented West Oaklanders. Throughout the plan, WOEIP reviewed all materials and helped shape the planning process.

East Bay Asian Local Development Corporation

The East Bay Asian Local Development Corporation (EBALDC) is a non-profit community development organization building healthy, vibrant, and safe neighborhoods.

On the Grand Avenue Mobility Plan, EBALDC worked with the San Pablo Area Revitalization Collaborative (SPARC) to build on neighborhood assets, align efforts, and pool resources to better achieve common outcomes. EBALDC and SPARC provided expertise on creative engagement in the community, including installing engagement chalkboards on West Grand Avenue for community members to provide feedback. The boards were set up at three locations along West Grand Avenue to capture input. The boards had a box of chalk and a key question prompting folks from the neighborhood who who may have been living in a nearby encampment, waiting for the bus or passing on foot.

Black Film Guild

The Black Film Guild was created to educate local Bay Area creators with the technical skills needed to learn photography and filmmaking. The mission of the Black Film Guild is to train and educate as many people as possible on the technical aspects of filmmaking and making sure they are prepared to talk about cameras and filmmaking to the highest degree. To carry out this mission, BFG hosts workshops, job training, online training courses, and in-person tutoring.

On the Grand Avenue Mobility Plan, the Black Film Guild created a stipend opportunity for youth artists in the community to engage in the plan and produce their artwork of choice expressing the plan and raising awareness. Throughout the process, youth artists met with BFG and OakDOT to discuss their work and feedback on the plan. BFG provided youth artists with supplies, equipment, and mentorship.

Businesses

Although it was a challenging time to engage with business owners along the corridor, the team received insightful feedback. The team reached out to business owners and merchants in West Oakland, the Downtown-Uptown Business Improvement District, and Adam's Point/Lake Merritt area.

Advisory Commissions

The team also had the honor of discussing the planning effort with various neighborhood and citywide advisory commissions:

Bicycle and Pedestrian Advisory Committee (BPAC)

Mayor's Commission on Persons with Disabilities (MCPD)

2x5x Neighborhood Council

Hoover Residential Action Council

Plan Development

What follows are three chapters chronicling the Grand Avenue Mobility Plan development, each fed by listening, collaborating and refining options, in conjunction with community members.

The Existing Conditions Chapter presents information collected by measuring land use, transportation, social, and environmental data and by listening to community experiences of and priorities for Grand Avenue,

The Corridor Options Chapter synthesizes community priorities into goals and presents four design options to satisfy those goals.

The Recommendations Chapter presents a preferred concept for Grand Avenue between Mandela Parkway and MacArthur Boulevard, along with next steps in design, engagement, and implementation.



OAKLAND, CA

Grand Avenue Mobility Plan

2 | Existing Conditions

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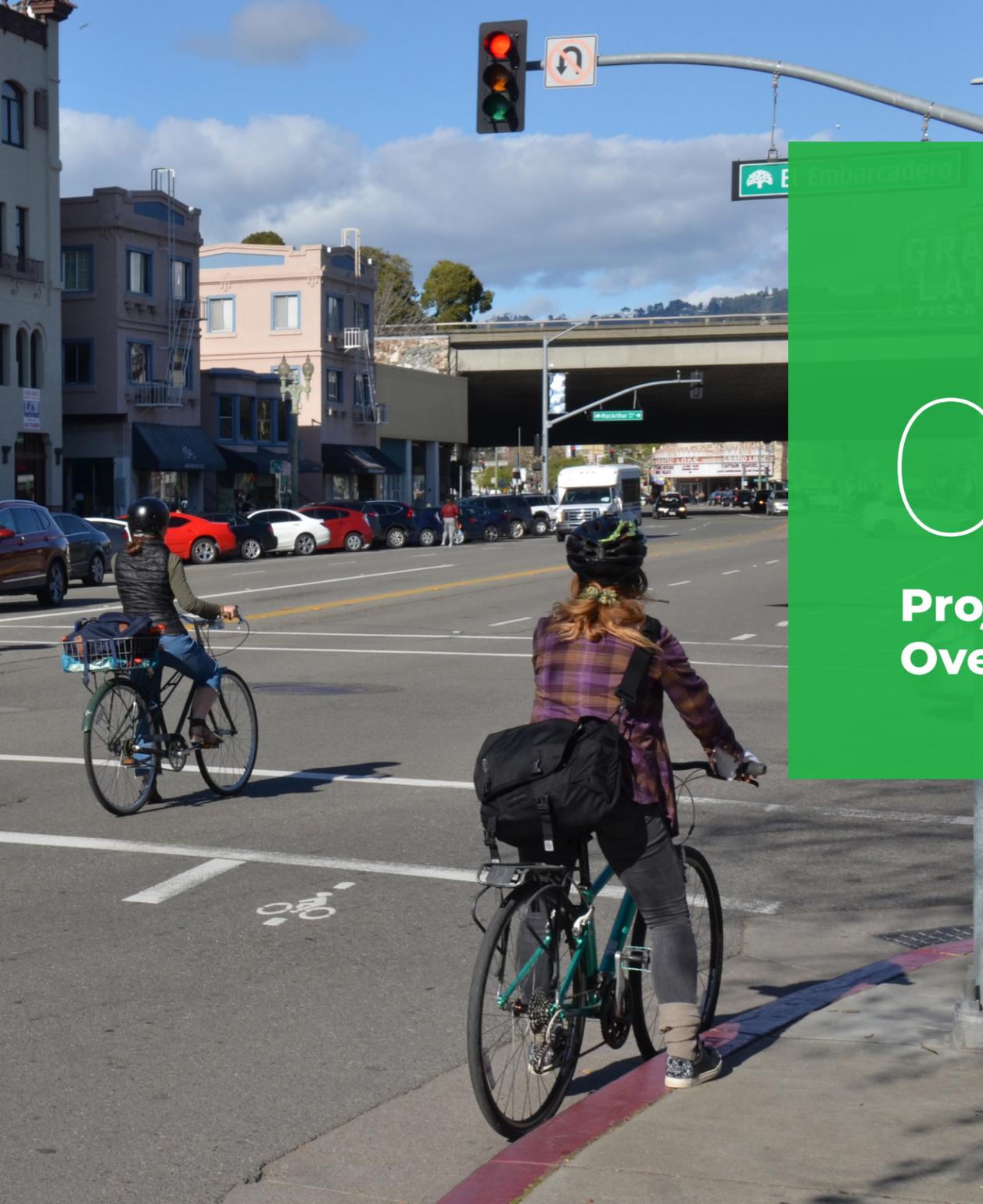
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04

Project Overview

Project Objective

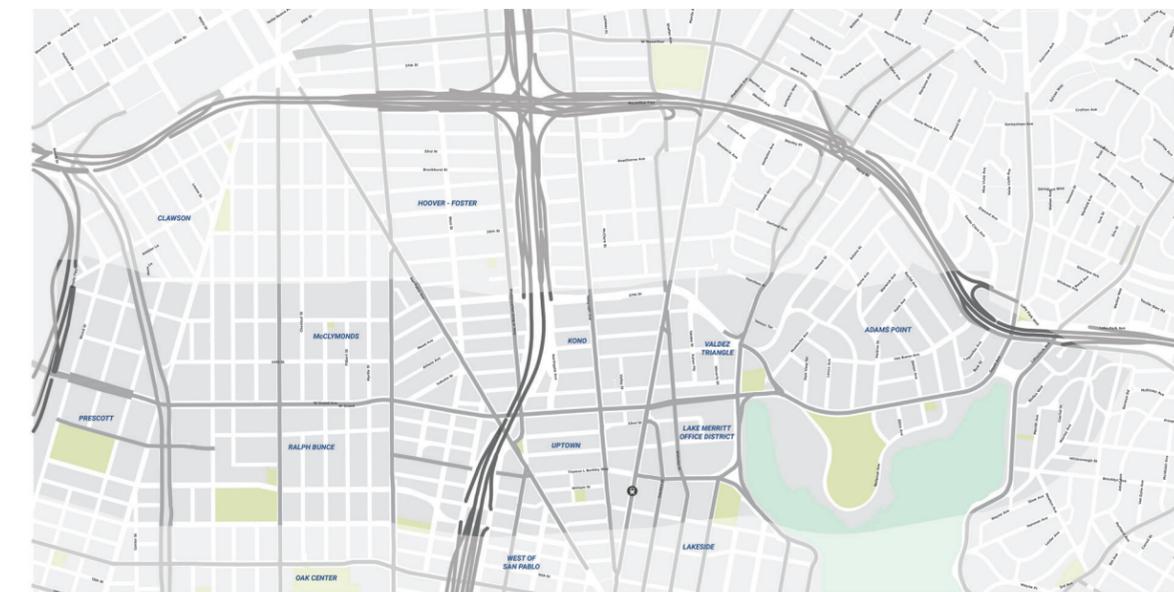
The Grand Avenue Mobility Plan will develop a community-led multimodal mobility plan for the Grand Avenue corridor. The project's study boundaries are between Mandela Parkway and MacArthur Boulevard. Informed by the input of community members and data, the project will develop achievable alternatives for a transformation of this corridor into an inclusive street that satisfies the needs of people using transit, walking, bicycling, scooting, or driving. The Plan will balance the competing needs of addressing safety and mobility inequalities along the corridor while putting people and their lived experience at the center of every design option. This document will provide a summary of the data-driven component of the existing conditions analysis.

This project will study conceptual roadway design changes between Mandela Parkway and MacArthur Boulevard. Figure 1 highlights the 2.3-mile long study area. The study corridor traverses three distinct areas of Oakland: West Oakland, Downtown, and Adams Point.

Unless otherwise stated, references to the Grand Avenue Corridor, Grand Avenue, West Grand Avenue and similar, refer to the study corridor in its entirety.

Note all data reflected in this Existing Conditions chapter were collected before the COVID-19 pandemic.

FIGURE 1: Study Corridor Extents



Communities and Destinations

The Grand Avenue Corridor is home to a diverse group of residents, businesses, community organizations, employers, cultural and community centers, parks, and more. Streets are both transportation infrastructure and public spaces that can be used for community gathering, art, and cultural expression. The corridor's location, design, and adjacent land uses enable it to serve a wide array of people, destinations, and purposes. The arterial corridor divides the boundaries of many neighborhoods across the city. Prescott, McClymonds, Ralph Bunche, Uptown, KoNo, Valdez Triangle, Lake Merritt Office District, and Adams Point are some of the neighborhoods that are situated along the Grand Avenue corridor. Figure 2 includes the land uses and some of the major destinations along the corridor.

Some of the community-oriented destinations along and near the corridor are West Oakland Public Library, De Fremery Park, McClymonds High School, West Grand Head Start, Black Organizing Project Community Center, Eritrean Community Cultural Civic Center, Mandela Parkway and Memorial Park, Lake Merritt, the Cathedral of Christ Light, Children's Fairyland, Lakeview Branch Public Library, St. Vincent de Paul Community Center, the Oakland Veteran's Memorial Building, and others.

Park, open space and trails and bikeways are shown on the following map, Figure 3 on pg. 8. The depicted trail and bikeway system reflects the recent Let's Bike Oakland Plan and shows how residents can connect to community facilities and where there may be gaps in the system.

A building's orientation to the street has one of the greatest effects on pedestrian and bicycle safety and comfort. It enables visual surveillance with windows and doors as well as social interaction with active frontages. Building and streetscape enclosure (how big or small a corridor feels) along a street also has a direct correlation to the speed of traffic along streets.

FIGURE 2: Land Uses and Destinations



FIGURE 3: Parks, Open Space, and Bikeways

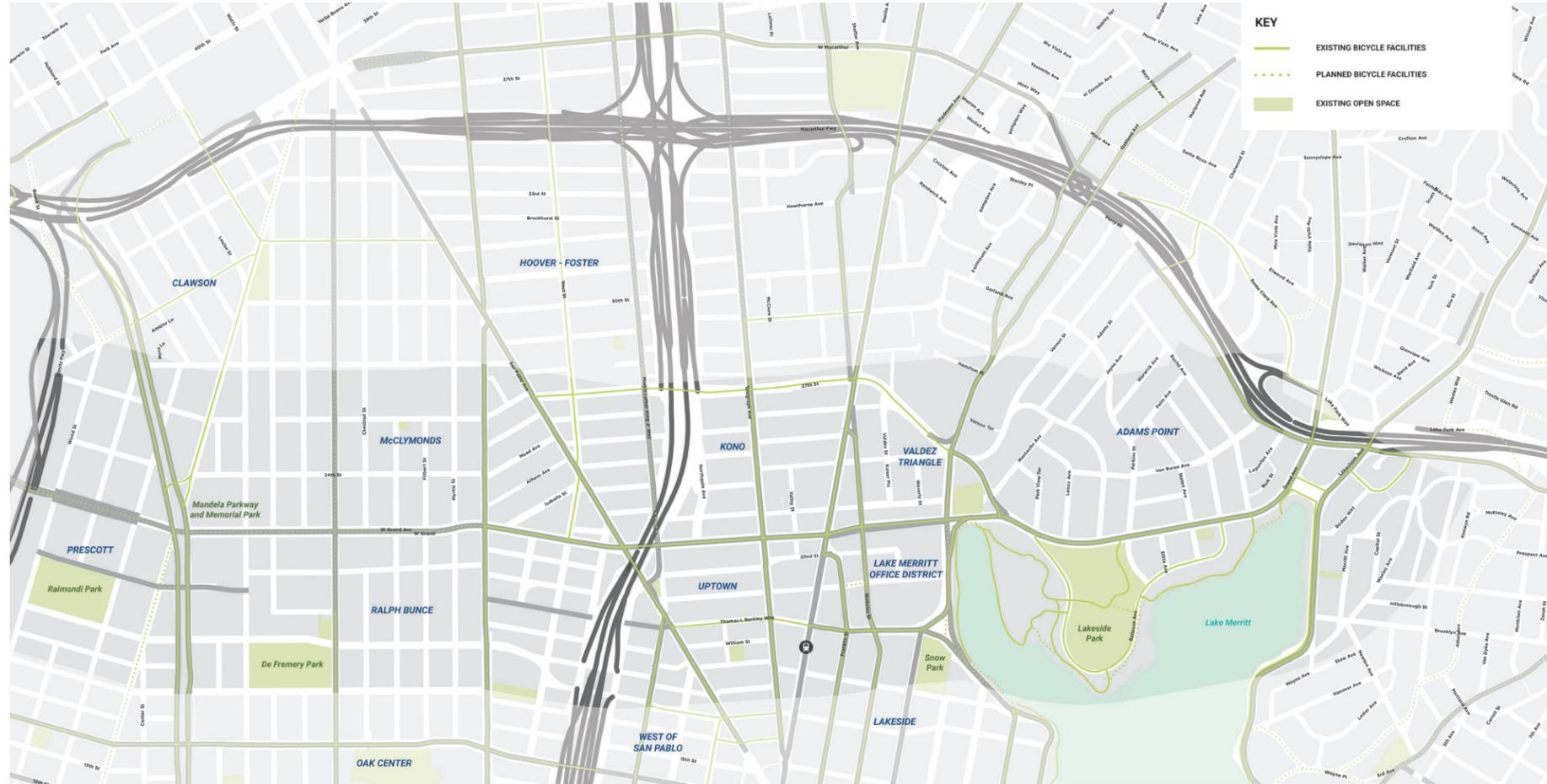
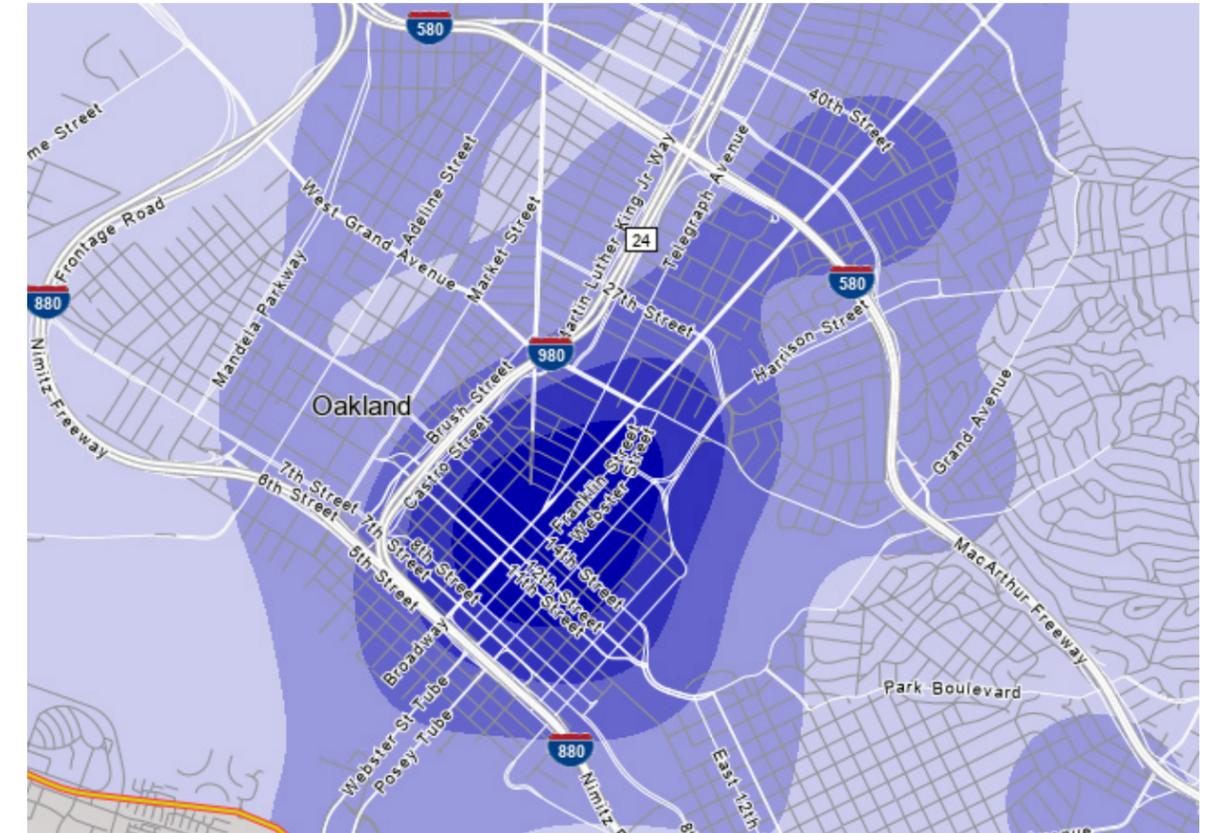


FIGURE 4: Employment Density

Some of the major employment centers served by the corridor include East Bay Municipal Utility District (EBMUD) Central Shop, Downtown Oakland, Lake Merritt Office District, Caltrans District 4 Headquarters, and the Port of Oakland. Based on 2017 U.S. Census data, there are about 109,000 jobs within a roughly eight-minute walk (0.5 miles) of the Grand Avenue corridor. Most of the jobs close to the corridor are concentrated in the Downtown area; employment density decreases radially the further from Downtown. Figure 4 shows the Employment Density around the corridor.



Source: U.S. Census

Over 21% of these jobs are filled by Oaklanders. Of those commuting into Oakland to fill the remainder of the jobs, the top five origin-home cities (with percent of workforce near the corridor) are San Francisco, Alameda, San Leandro, Berkeley, and Hayward. This data is shown in Table 1.

TABLE 1: Worker Origins Near Grand Avenue

Worker Origin City (Where Workers Live)	Percent of Workers
Oakland	21.6%
San Francisco	8.6%
Alameda	3.4%
San Leandro	3.4%
Berkeley	3.3%

Source: U.S. Census

There are about 48,000 workers who live within half-a-mile of the corridor. Of these residents, the top five places they travel to get to work (with percent of the workforce) are San Francisco, Oakland, Berkeley, Emeryville, and San Leandro. Resident workplace data is shown in Table 2.

TABLE 2: Resident Workplace Destinations

Workplace Destination City (Where Residents Work)	Percent of Workers
San Francisco	30.5%
Oakland	24.8%
Berkeley	6.6%
Emeryville	2.4%
San Leandro	1.9%

Source: U.S. Census

These commute patterns indicate that there is a large imbalance between the number of people who live near the corridor who commute elsewhere and the number of people who may travel along the corridor to get to work:

- 101,473 workers commute into the area
- 39,754 residents commute outside of the area
- 7,856 residents work within the area

Land Use Contexts

The land use contexts of the corridor vary greatly across the corridor's three areas: West Oakland, Downtown, and Adams Point. Land uses and destinations can be seen in Figure 2 on pg. 7.

West Oakland

MANDELA PARKWAY - SAN PABLO AVENUE/I-980

The land uses around the corridor within West Oakland are primarily industrial uses west of Adeline Street. East of Adeline Street, the land uses transition into residential developments. There are pockets of commercial uses around the Market Street intersection. Residential uses bookend the industrial developments that directly front the corridor.



W Grand Avenue at Adeline



Grand Avenue at Harrison

Downtown

SAN PABLO AVENUE/I-980 - HARRISON STREET

Immediately east of I-980, there are two blocks of residential development. East of Telegraph Avenue, the land uses become denser with buildings rising in height. Building height peaks between Valley Street and Harrison Street. The Downtown area has a mix of residential, commercial, and office uses.



Grand Avenue at Perkins

Adams Point

HARRISON STREET - MACARTHUR BOULEVARD/I-580

Within this area, there are only three blocks of housing south of the corridor. The remainder of the area south of the corridor consists of Lake Merritt, Children’s Fairyland, and Eastshore Park. The neighborhood north of the corridor is primarily residential. Some of the fronting uses along the corridor are commercial/retail establishments.

Public Transportation

Promoting transit along Grand Avenue is integral to policies that seek sustained improvements in pedestrian, bicyclist, and vehicle occupant safety. Transit mode share and transit-supportive infrastructure are directly correlated to lower traffic fatality rates. Transit streets focus on people and moving a high-volume of people and space-efficient users within cities.

The Grand Avenue Corridor is served by three AC Transit routes: 12, 805, and NL. Route 12 is a local line that travels along the Adams Point segment and a portion of the Downtown segment of the corridor. Route 805 provides late night and early morning local service to the Adams Point segment and a portion of the Downtown segment of the corridor. Route NL is a transbay route that covers the entirety of the Adams Point and West Grand Avenue segments of the corridor. The NL makes stops at MacArthur Boulevard, Perkins Street, Market Street, Adeline Street, and Mandela Parkway/Peralta Streets along Grand Avenue. The 12 makes stops at



The Grand Avenue/MacArthur Boulevard westbound stop under I-580

MacArthur Boulevard, Perkins Street, El Embarcadero, Euclid Avenue, Park View Terrace, Staten Avenue, Valdez Street, Webster Street, and Broadway. The 805 stops at MacArthur Boulevard, Perkins Street, El Embarcadero, Euclid Avenue, and Park View Terrace. There are no bus routes that travel along the entire study corridor.

The closest BART station is 19th Street BART, which is accessible at Broadway. West Oakland BART is about three-quarters of a mile south on Mandela Parkway. Many buses in this area serve the Uptown Transit Center.



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Planning and Policy Context

Plan Review

This project reviewed 18 regional, citywide, and community/neighborhood planning documents. Regional documents included documents from Alameda County Transportation Commission (ACTC), Metropolitan Transportation Commission (MTC), and AC Transit. Oakland-specific documents included:

- Oakland Walks!
- Let's Bike Oakland
- AB-617 related documents
- Seaport Air Quality 2020 and Beyond
- Oakland Transit Action Strategy

Community and neighborhood documents included:

- Broadway Valdez District Specific Plan
- Telegraph-Northgate Neighborhood Plan
- West Oakland Specific Plan
- West Oakland Truck Management Plan
- Downtown Oakland Specific Plan (Draft)
- Owning Our Air: The West Oakland Community Action Plan

SUMMARY

The Grand Avenue Corridor has regional significance because it links Downtown Oakland and the Bay Bridge. As a key component in the regional transportation network, regional plans from the ACTC, MTC, and AC Transit envision Grand Avenue as a corridor that serves as a transit spine to West Oakland, Downtown, Lake Merritt, the Bay Bridge, and destinations beyond. AC Transit has also indicated that corridors in the West Oakland and MacArthur-Grand corridors are early targets to have 100% zero-emission fleets by the end of this decade. The entire AC Transit fleet will be zero emission by 2040. Some of these planning documents, including the West Oakland Specific Plan, stress the importance of maintaining the corridor for necessary freight and truck movements and keeping large trucks off local streets.

Citywide and community-based documents also stress the importance of the Grand Avenue Corridor as a bridge to and across neighborhoods throughout Oakland. Oakland Walks! and Let's Bike Oakland focus on improving the safety and comfort of walking and bicycling along and across Oakland streets, including this corridor. Neighborhood plans stress the importance of both improving active transportation and public transportation with and across their areas. The Seaport Air Quality Plan, West Oakland Truck Management Plan, and Owing Our Air Plan stress the importance of improving both air quality and other quality-of-life factors for local residents. These plans envision a corridor that safely and comfortably serves local residents and businesses while improving the reach and frequency of transit services.

AB 617 IMPLICATIONS

Signed in 2017, AB 617 directed the California Air Resources Board and local air districts to take measures to protect communities disproportionately impacted by air pollution. Given their proximity to the Port of Oakland, communities in West Oakland are disproportionately affected by emissions from Port-related activities. Increased exposure to emissions has been linked to increases in serious health conditions including asthma and increased cancer risk. Strategies to reduce emissions are codified in plans from the Port (Seaport Air Quality 2020 and Beyond), AC Transit's Clean Corridors Plan, West Oakland Truck Management Plan, and Owing Our Air from the BAAQMD and West Oakland Indicators Project. The products created from this planning process will be consistent with and build upon those documents.

Equity Indicators

The allocation of public resources in the United States, across the Bay Area, and in Oakland have historically favored wealthier white communities over communities of color. Within Oakland, prioritizing infrastructure improvements within disadvantaged communities acknowledges that transit and active transportation options provide economic, social, and health-promoting opportunities if planned in close collaboration with the community.



Bicycling along West Grand Avenue

Equity Priority Communities

The Metropolitan Transportation Commission's Equity Priority Communities metric identifies disadvantaged neighborhoods by census tract, using thresholds of high, higher, and highest. MTC uses the following metrics to determine these areas:

- race/ethnicity
- low-income population (greater than 200% living below the poverty line)
- limited English proficiency population
- zero-vehicle households
- seniors 75 and over
- population with a disability
- single-parent families, and
- severely rent-burdened households

Across the corridor, all but one census tract is considered a Equity Priority Community at the high or highest threshold. The Adams Point area north of the corridor is the neighborhood that is not currently listed as an Equity Priority Community. There

are five census tracts at the highest threshold, three in West Oakland and two in Downtown. Figure 5 shows the Equity Priority Community status around the corridor.

CalEnviroScreen 3.0

The CalEnviroScreen analysis identifies communities that are disproportionately burdened by and vulnerable to multiple sources of pollution. The analysis's indicators fall into four categories:

- **Exposures:** Contact with pollution.
- **Environmental Effects:** Adverse environmental conditions caused by pollution.
- **Sensitive Populations:** Populations with biological traits that may magnify the effects of pollution exposures.
- **Socioeconomic Factors:** Community characteristics that result in increased vulnerability to pollution.

Communities are considered disadvantaged if they rank at or above

the 75th percentile (CA OEHH).

Along the study corridor, the entire West Oakland segment scored above the 75th percentile threshold; no other corridor segment passed the threshold. Some areas in Adams Point ranked in the lowest percentiles. This illustrates the range of communities and needs that change along the corridor.

Figure 6 shows the CalEnviroScreen rankings along the corridor.

FIGURE 5: Equity Priority Communities (formerly referred to as Communities of Concern)

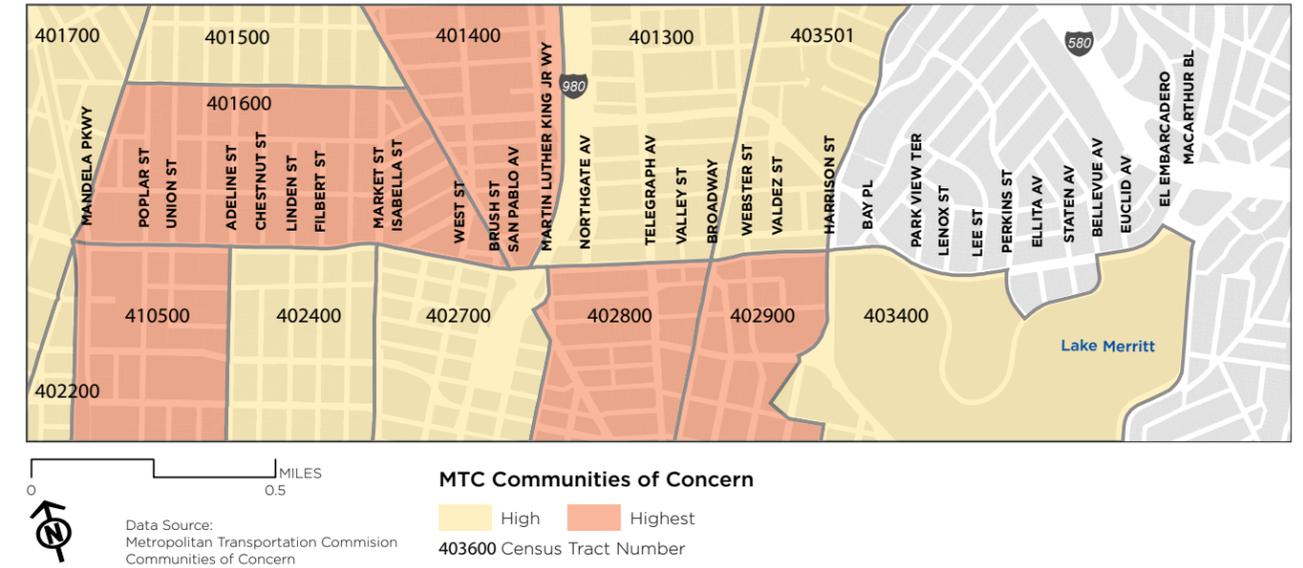
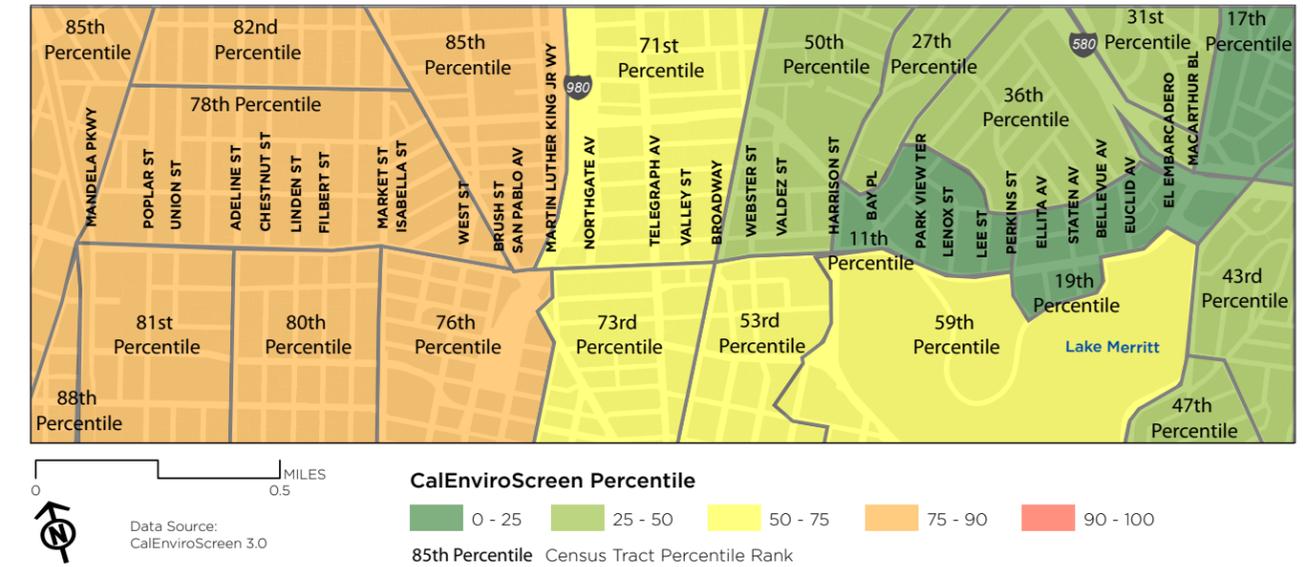


FIGURE 6: CalEnviroScreen



Free and Reduced-Price Meals

The California Department of Education collects information on the number of students that are eligible for free or reduced-price meals. Schools, where over 75% of students are eligible for free or reduced-price meals, are considered disadvantaged. While no school directly fronts the Grand Avenue Corridor, six of the nine public schools within a half-mile of the corridor have a student population where over 75% of students qualify for free or reduced-price meals: These schools are McClymonds High, Street Academy, Westlake Middle, Martin Luther King Jr. Elementary, Ralph Bunche High, and Vincent Academy. These schools and their student population eligible for free and reduced-price meals are shown in Figure 7.

Housing and Transportation Costs

Understanding how much income households are spending on housing and transportation costs can provide an understanding of the financial burdens that residents are experiencing. Based on the analysis, housing and transportation costs are varied both within and across the corridor's three areas. Costs in West Oakland range from 22-40% of household income on average, costs in Downtown range between 22-29% and costs in the Adams Point area range between 30-54%. Overall, the average household spends 39% of its income on housing and transportation. Transportation costs alone ranged between 11-16% across the corridor. The citywide transportation costs average is 15% (Center for Neighborhood Technology). Figure 8 shows the breakdown of household income spent on housing and transportation costs.

FIGURE 7: Free and Reduced-Price Meal Eligibility

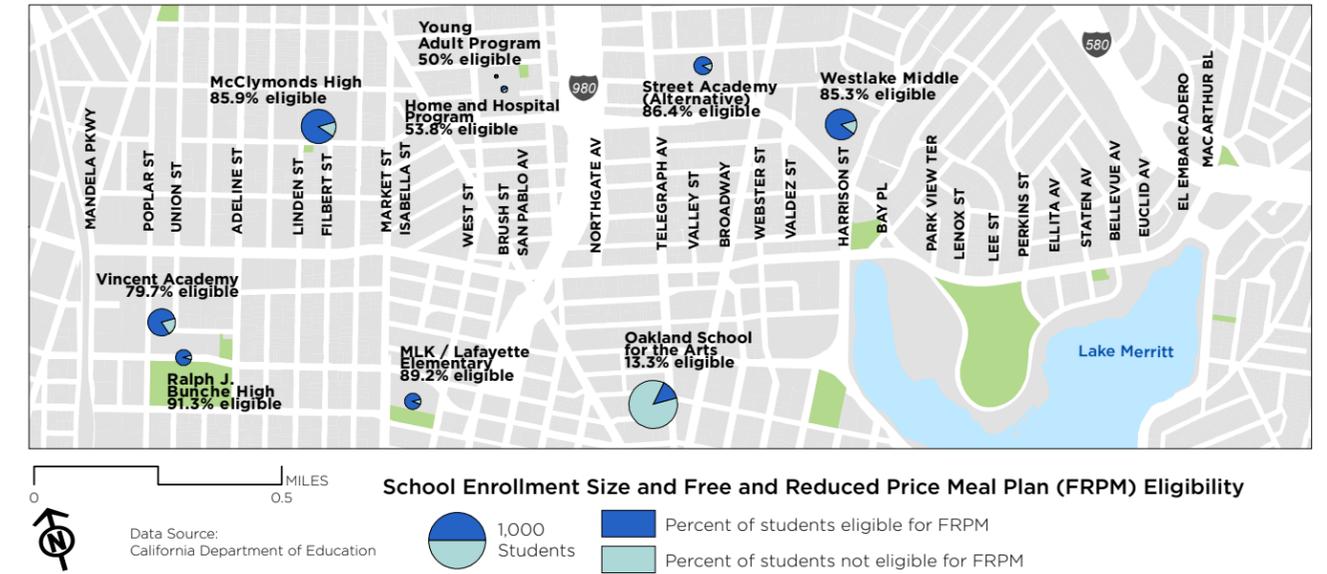
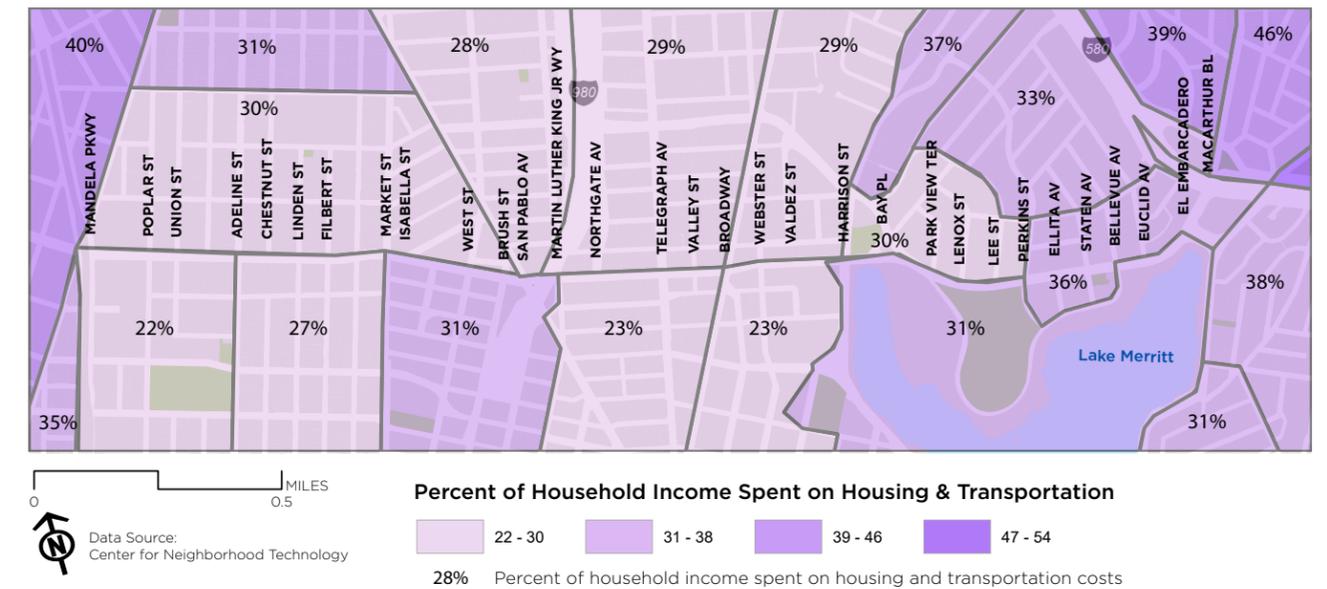


FIGURE 8: Percent of Household Income Spent on Housing & Transportation



Healthy Places Index Data

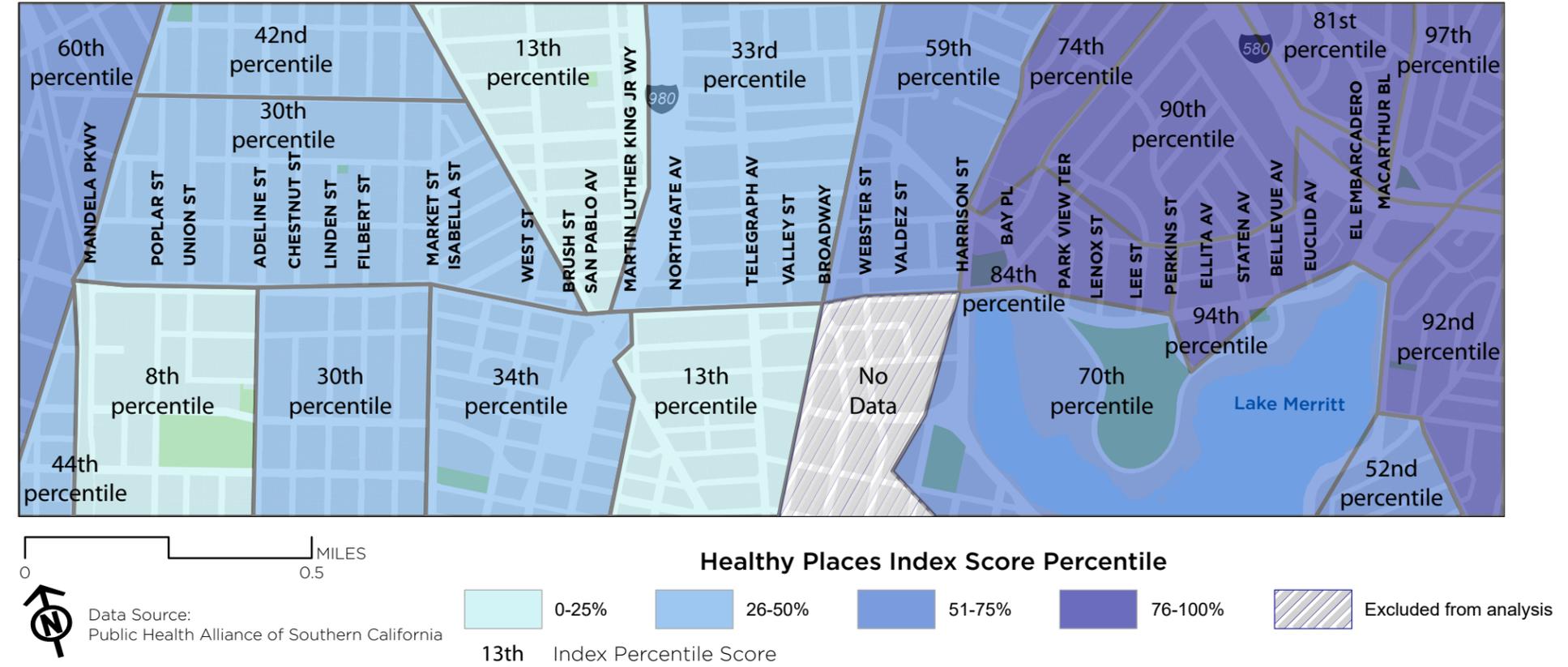
The Healthy Places Index uses 25 individual indicators that analyze public health data in eight areas:

- Economy
- Education
- Healthcare access
- Housing
- Neighborhoods
- Clean environment
- Transportation
- Social environment

The analysis tries to capture a holistic understanding of health and recognizes that health is produced by community factors not directly addressed by the health care system. On the index, lower numbers indicate less healthy communities.

Of analyzed census tracts, three ranked in the bottom quartile, two in West Oakland and one in Downtown. Across the corridor, percentiles ranged from 9th to 98th; a very wide variance that exemplifies the effects of historic disinvestment in certain segments of the Grand Avenue Corridor. Figure 9 displays the Healthy Places Index data.

FIGURE 9: Healthy Places Index



Changes Along the Corridor - Planned and Future Investments

Repaving

The West Grand Avenue segment of the corridor (Campbell Street to Market Street) will be repaved in 2022. As part of the repaving project, two vehicle lanes are being removed after determining that six lanes of traffic is not needed. With the additional space, new buffered bicycle lanes will be painted along with new crosswalks.

Proposed Major Developments

There are multiple current or planned projects along the corridor:

- Ice House is an under-construction development in West Oakland between Filbert Street and Myrtle Street that is building 126 residential units.
- Telegraph Tower, in Downtown at the W. Grand Avenue/Telegraph Avenue intersection is a 28-story 875,000 square foot office tower development.

- 88 Grand is a 35 story, 263 residential tower that will be located at Grand Avenue and Webster Street. The project will include ground floor retail.
- 2270 Broadway will be a 24 story, 223 unit residential tower. The project also includes ground floor retail.
- 500 Grand will be a five story, 40-unit development with 3,000 feet of ground floor retail.

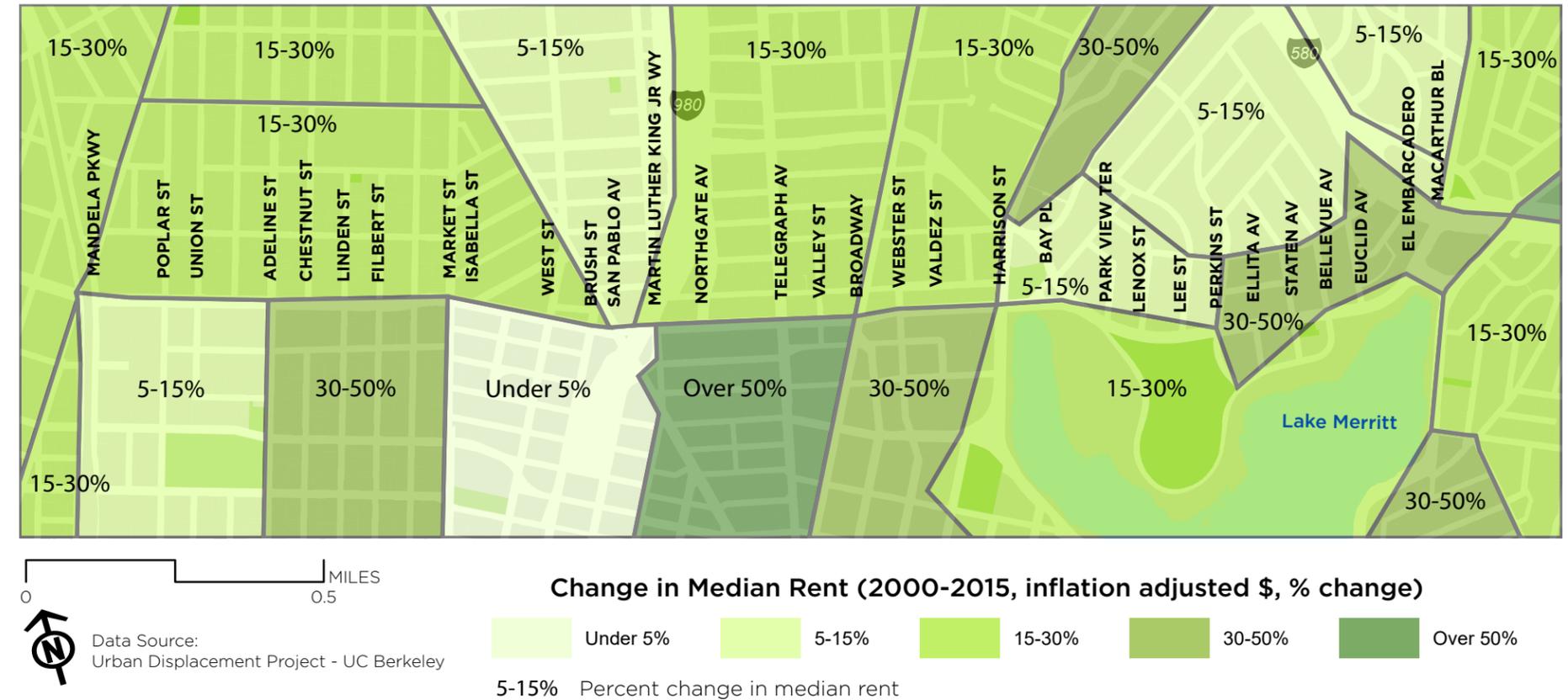
Gentrification Concerns

The aforementioned projects and the outcomes of this study may, understandably, raise concerns about gentrification and the displacement of long-term community members. These concerns are captured in prior planning documents including the West Oakland Specific Plan. Investments in public infrastructure, however well-

intentioned, can signal to private developers that areas are primed for new investment and development. These concerns are confirmed according to data from UC Berkeley's Urban Displacement Project. The Urban Displacement Project is a research and action initiative of UC Berkeley. Their research "aims to understand and describe the nature of gentrification and displacement, and also to generate knowledge on how policy intentions and investment can respond and support more equitable development" (Urban Displacement Project).

Between 2000 and 2013, with a few exceptions, rents have risen across the corridor. The average rent increase was as high as 45% in some neighborhoods. Neighborhoods in Downtown and West Oakland experienced larger increases than the Adams Point area (Urban Displacement Project - UC Berkeley). The change in rent across the corridor is shown in Figure 10.

FIGURE 10: Change in Median Rent (2000-2015)



The Urban Displacement Project also provides data about changes in the number of households of color along the corridor. There are areas along the corridor that have lost households of color and others that have gained households of color between 2000 and 2015 (the latest year that data was available). The Adams Point area had the greatest loss of households of color, while the Downtown and West Oakland areas were mixed. Downtown had more census tracts that gained households of color than lost them and the tracts in West Oakland were split (Urban Displacement Project). This data for Grand Avenue is shown in Figure 11.

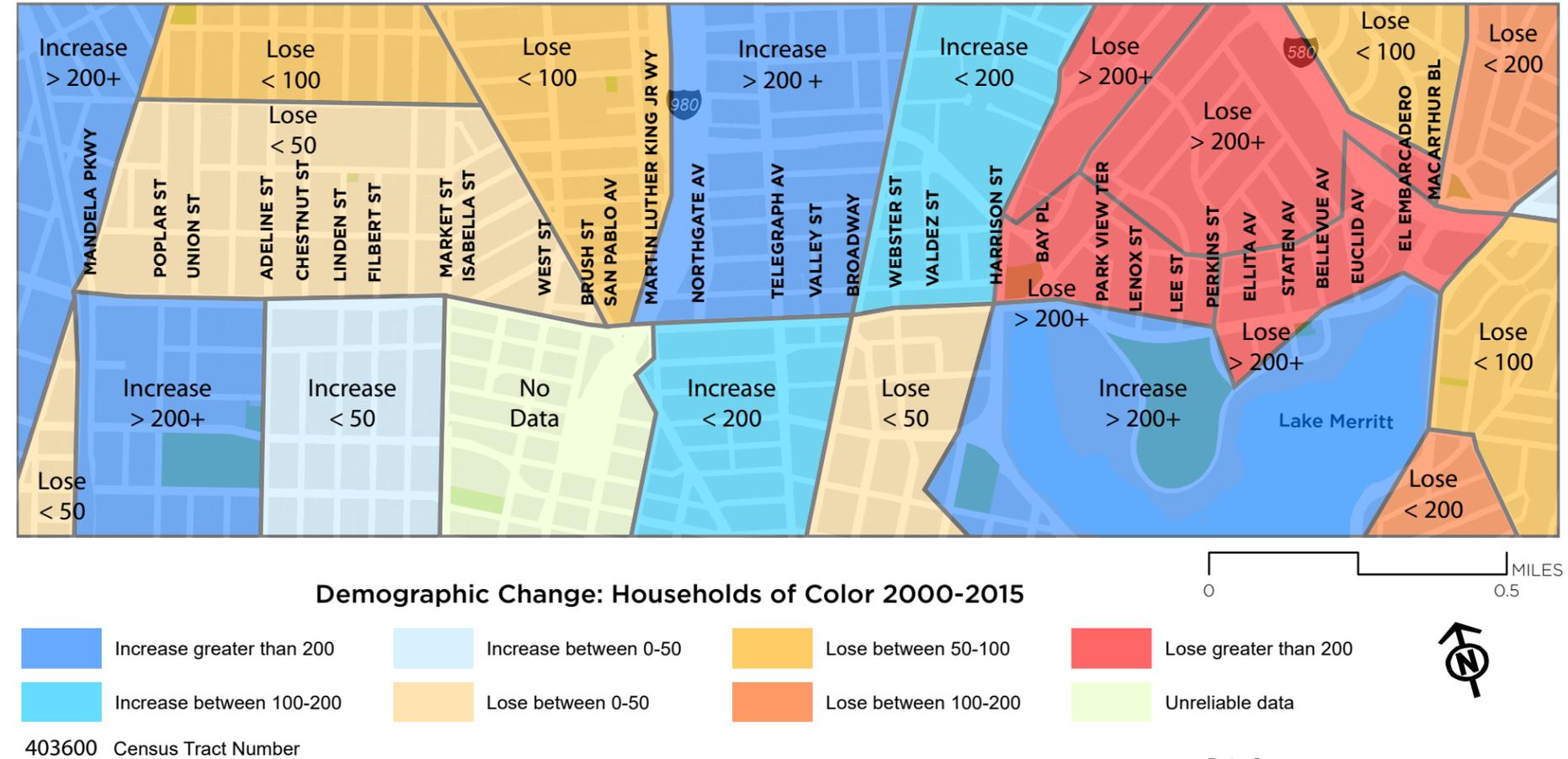
To both acknowledge and try to minimize this effect, this Plan will balance the competing need to address safety and inequality along

the corridor by putting long-time community members and their lived experiences at the center of every design option. The Plan will generate a feedback cycle where every round of engagement will begin by articulating what was heard in prior rounds and how design options reflect the heard community vision and needs.

Homelessness

Homelessness is a major issue across California and the Bay Area, especially within some communities of Oakland. The 2019 EveryOne Counts Count and Survey indicated that there are over 8,000 homeless people in Alameda County; over 4,000 of them reside in Oakland. 3,200 of these people are unsheltered (Alameda County EveryOne Home Homeless Count and Survey, 2019). This planning process recognizes that some of these people currently live in tents and makeshift shelters on Grand Avenue, both on the sidewalk, in nearby parks, and parked in cars and recreational vehicles along the corridor. This Plan also recognizes that transportation costs can also be a burden, especially with homeless and other low-income communities. Walking, bicycling, and transit are low-cost transportation options that can help these residents reach employment, job training, health services, and other important destinations.

FIGURE 11: Change in Households of Color (2000-2015)





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Moving Along the Corridor

Walking

BY THE NUMBERS

Sidewalk Inventory

Sidewalks were inventoried throughout the study area to analyze if there is sufficient width and to document obstructions. The condition of sidewalks varied greatly throughout the corridor. Data will be broken down by corridor segment:

WEST OAKLAND

Sidewalk presence and widths vary greatly. Mandela Parkway offers a wide and protected pedestrian plaza, however many blocks are characterized by missing sidewalks, narrow walkways, and uneven surfaces. In 2020, the City installed 9,000 square feet of sidewalk on West Grand Avenue



West Grand Avenue sidewalks

between Adeline and Union where there had only been a dirt path.

DOWNTOWN

Sidewalk presence and widths generally become wide and uniform in the Downtown area. The sidewalk along the northern leg of Grand Avenue underneath I-980 from San Pablo Avenue to Telegraph Avenue is narrow and contains several obstacles for pedestrians. Uprturned sidewalk and several tight sections where parking meters and utilities cause walkways to narrow to 3-4 feet can make this section difficult to navigate.

ADAMS POINT

Sidewalk widths in the Adams Point neighborhood are wide and uniform. Tree and plant buffers along the walkways adjacent to Lakeside Park create a comfortable environment for pedestrians.

Figure 12, Figure 13, and Figure 14 show the results of the sidewalk inventory for each area.

FIGURE 12: West Oakland Sidewalk Inventory



FIGURE 13: Downtown Sidewalk Inventory

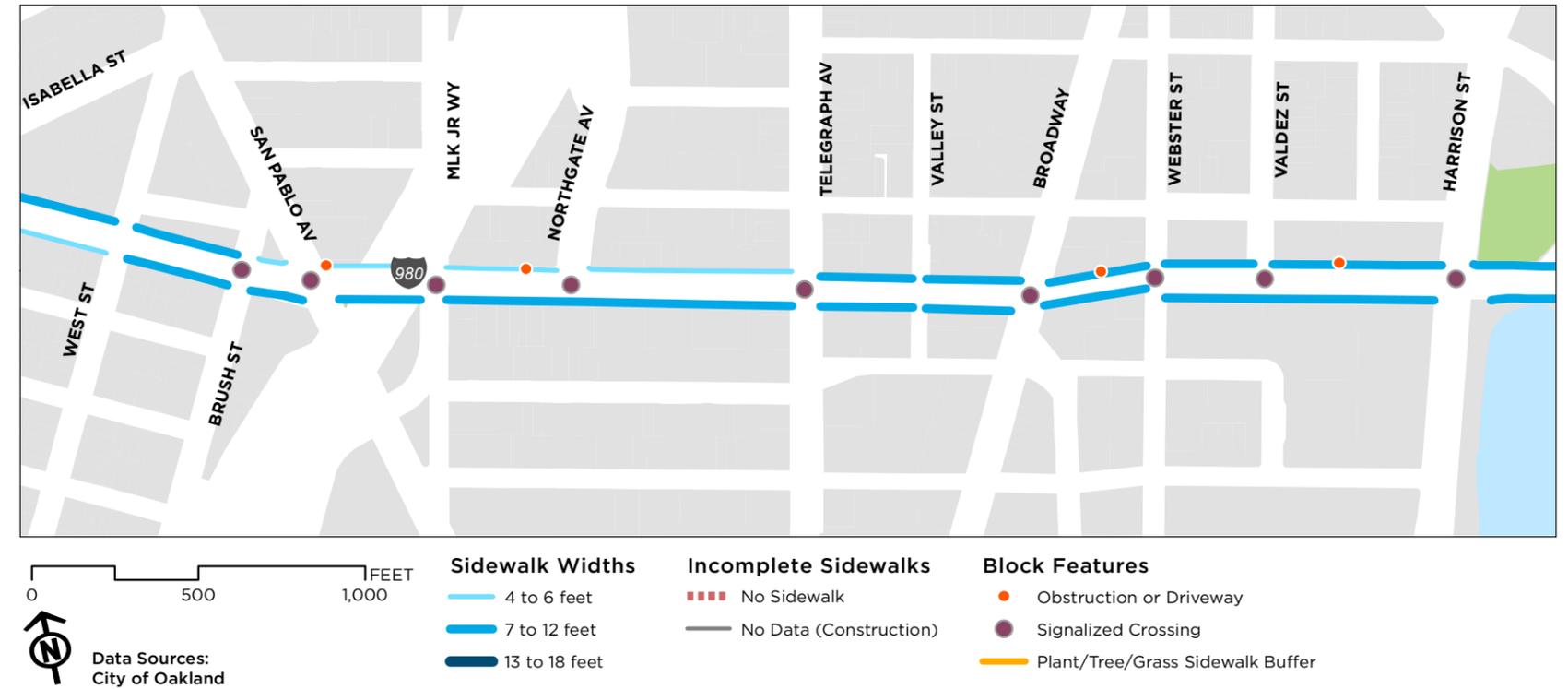


FIGURE 14: Adams Point Sidewalk Inventory



Crossing Analysis

A pedestrian crossing analysis was conducted to inventory crosswalks across Grand Avenue, installed crossing enhancement devices, and presence of the median. A list of collisions broken down by involved modes is available in Appendix A.

WEST OAKLAND

Signalized crossings are widely and infrequently spaced. On average, intersections in this section of W Grand Avenue are spaced 366 feet apart; signalized crossings, however, are spaced an average of over 1,000 feet apart. In one section, pedestrians must walk 0.3 miles before reaching the next signalized crossing. Several intersections lack marked crosswalks. Traffic signals make up half of all crossing facility types.

DOWNTOWN

Signalized crossings are evenly spaced and occur at all but one intersection. Pedestrians only need to walk one half block to reach the next signalized crossing. In this section, Valley Street/W Grand Avenue is the only intersection that does not have a traffic signal. At this location, there are two high visibility crosswalks with center medians. The center medians have space for pedestrians seeking refuge, however, the area is not ADA accessible.

ADAMS POINT

Marked crossings occur at every intersection. Pedestrians walking in this section encounter either a traffic signal or pedestrian crossing beacon at every intersection. On average, crossings are spaced 400 feet apart. In several places, parking lots and gas station driveways create potential safety concerns/conflict points as cars move in and out across the sidewalk.

Figure 15, Figure 16, and Figure 17 show the results of the crossing analysis for each area.

FIGURE 15: West Oakland Crossing Analysis



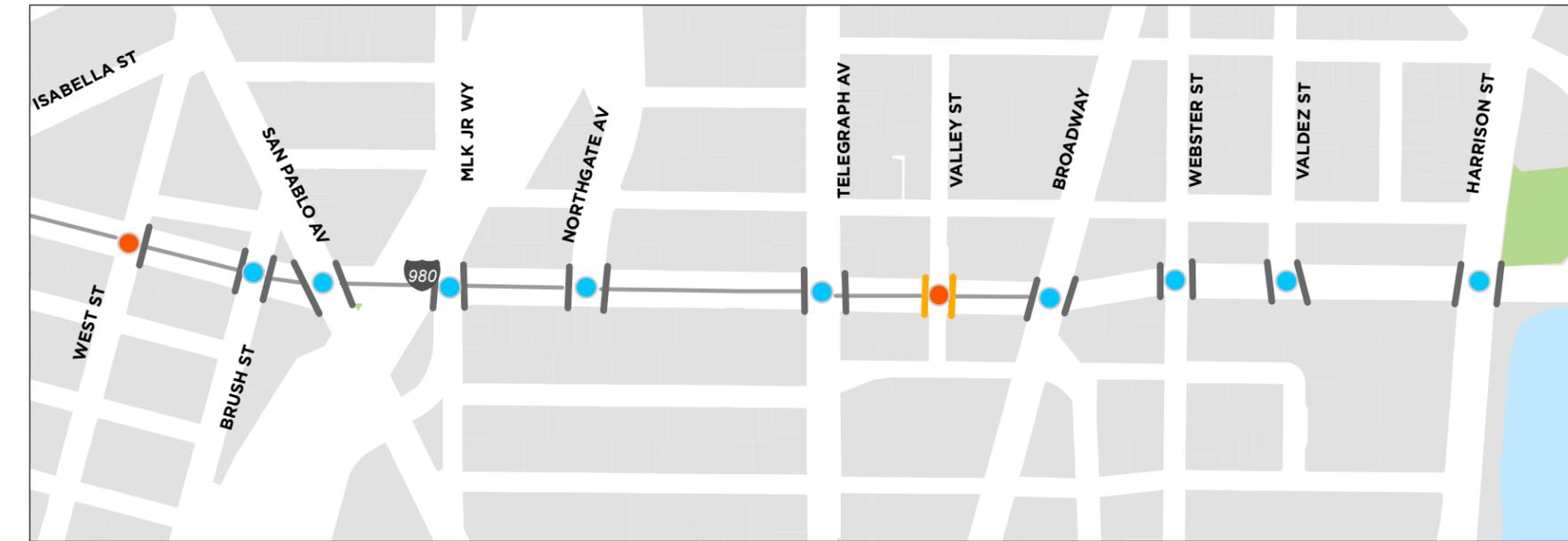
0 500 1,000 FEET

North Arrow

Data Sources: City of Oakland

Crossing Type		Crossing Features			
● Traffic Signal	● Rectangular Rapid Flash Beacon	● Curb Extension	— Standard Crosswalk	— Center Median	— High Visibility Crosswalk
● HAWK Beacon	● Marked Crosswalk				

FIGURE 16: Downtown Crossing Analysis



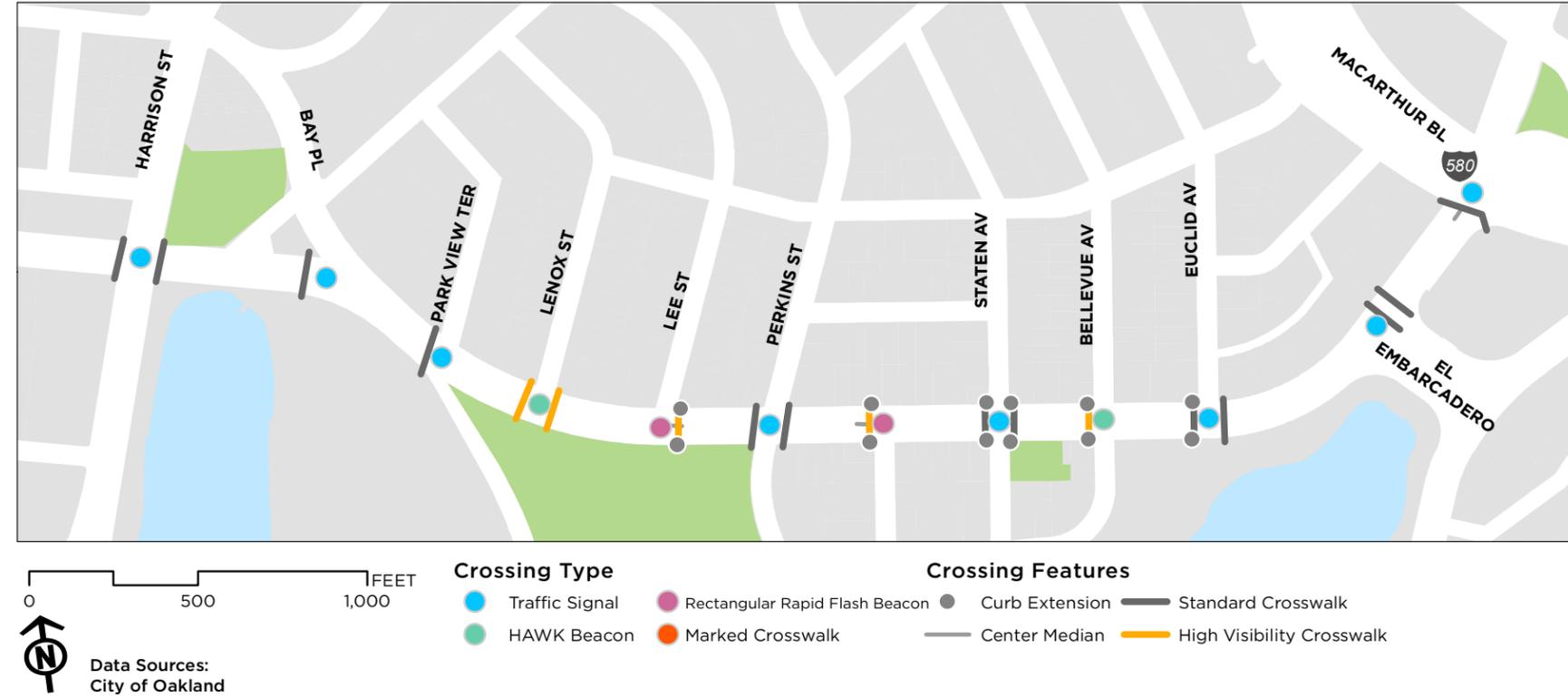
0 500 1,000 FEET

North Arrow

Data Sources: City of Oakland

Crossing Type		Crossing Features			
● Traffic Signal	● Rectangular Rapid Flash Beacon	● Curb Extension	— Standard Crosswalk	— Center Median	— High Visibility Crosswalk
● HAWK Beacon	● Marked Crosswalk				

FIGURE 17: Adams Point Crossing Analysis



Drivers Yielding to Pedestrians

In December 2019, a driver yield analysis was conducted at four locations across the corridor: Linden Street in West Oakland, Valley Street in Downtown, and Lee Street and Bellevue Avenue in Adams Point. These locations were selected to ensure that each area had one intersection and that a variety of existing intersection treatments could be observed. The Linden Street crossing is a yellow crosswalk with no advance warning signs or pavement markings, Valley Street is a high visibility crosswalk with advance signs and striping, Lee Street has an Rectangular Rapid Flash Beacon (RRFB), and Bellevue Avenue has a Pedestrian Hybrid Beacon (PHB - also known as a HAWK Beacon). The corridor has two HAWK Beacons and two RRFBs, both in the Adams Point section of the corridor.



The transverse crosswalk markings across W Grand Avenue at Linden Street

The lowest yielding rates were observed at the crossing at Linden Street, the location with the least amount of crossing enhancements and the highest number of travel lanes that need to be crossed. The high-visibility crosswalks and advance yield pavement markings and signs at Valley Street create a yield rate that is still lower than 30%, but did provide

a 10% improvement, compared to Linden Street. The RRFB at Lee Street improved yield compliance to almost 50%. The HAWK Beacon at the Bellevue Avenue crossing had the highest yield compliance rate of 88%; this tracks with the national rate of yield compliance at HAWK Beacons of about 90% (FHWA).

Over 60% of the crossings of Grand Avenue in West Oakland are uncontrolled crossings with no crossing enhancements. No other section of Grand Avenue within the study area has so few unenhanced pedestrian crossings. All four of Adam's Point's uncontrolled crossings have been enhanced with either an RRFB or HAWK Beacon and Downtown only has one uncontrolled crossing. There is a clear discrepancy with the levels of pedestrian infrastructure across the neighborhoods. Part of this is due to the character of the neighborhoods and the surrounding land uses (the fronting uses are much more conducive the pedestrian activity in Downtown and Adam's Point than the more industrial uses in West Oakland). This lack of pedestrian crossing enhancements appears to contribute to very poor yield rates and uncomfortable/highly-stressful crossings.

TABLE 3: Grand Avenue Yield Study Results

Intersection	Driver Yield Rate	Existing Infrastructure
Linden	19%	Crosswalk
Valley	29%	High visibility crosswalks & signage
Lee	46%	Rectangular Rapid Flashing Beacon
Bellevue	88%	Pedestrian Hybrid Beacon

Pedestrian Collisions

The locations of pedestrian-involved collisions can be found in Figure 19, Figure 20, and Figure 21. Pedestrian-involved collisions occurred at the following intersections:

- Adeline Street
- Linden Street
- San Pablo Avenue
- MLK Jr. Way
- Northgate Avenue
- Telegraph Avenue
- Valley Street
- Broadway
- Harrison Street
- Bay Place
- Lee Street
- Perkins Street
- Staten Avenue
- Bellevue Avenue
- Euclid Avenue
- El Embarcadero

Pedestrian-involved collisions account for about 17% of collisions along the corridor. Figure 18 identifies the Pedestrian Action, what the pedestrian's action was during the collision. It is important to note that 68% of pedestrian collisions occurred in a marked crosswalk at an intersection, with another 5% occurring in a mid-block crosswalk; in total almost three-quarters of pedestrian-involved collisions occur at a marked crosswalk.

FIGURE 18: Pedestrian Behavior During Collision

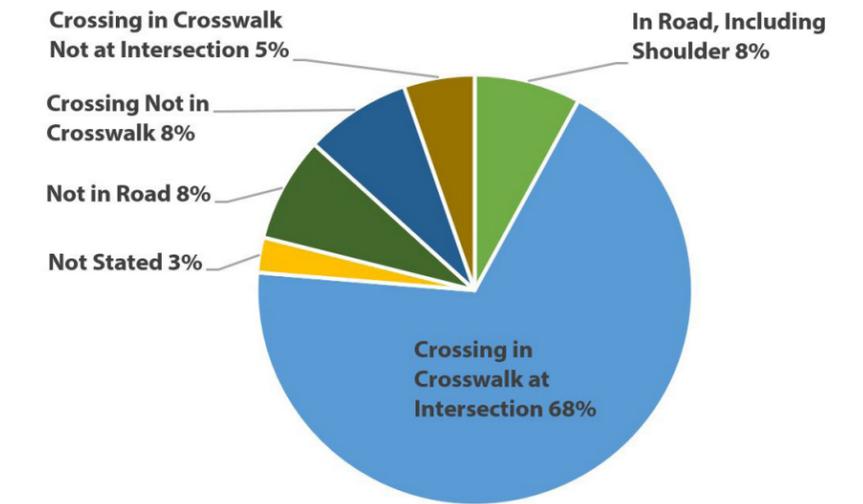


FIGURE 19: West Oakland Collision Locations

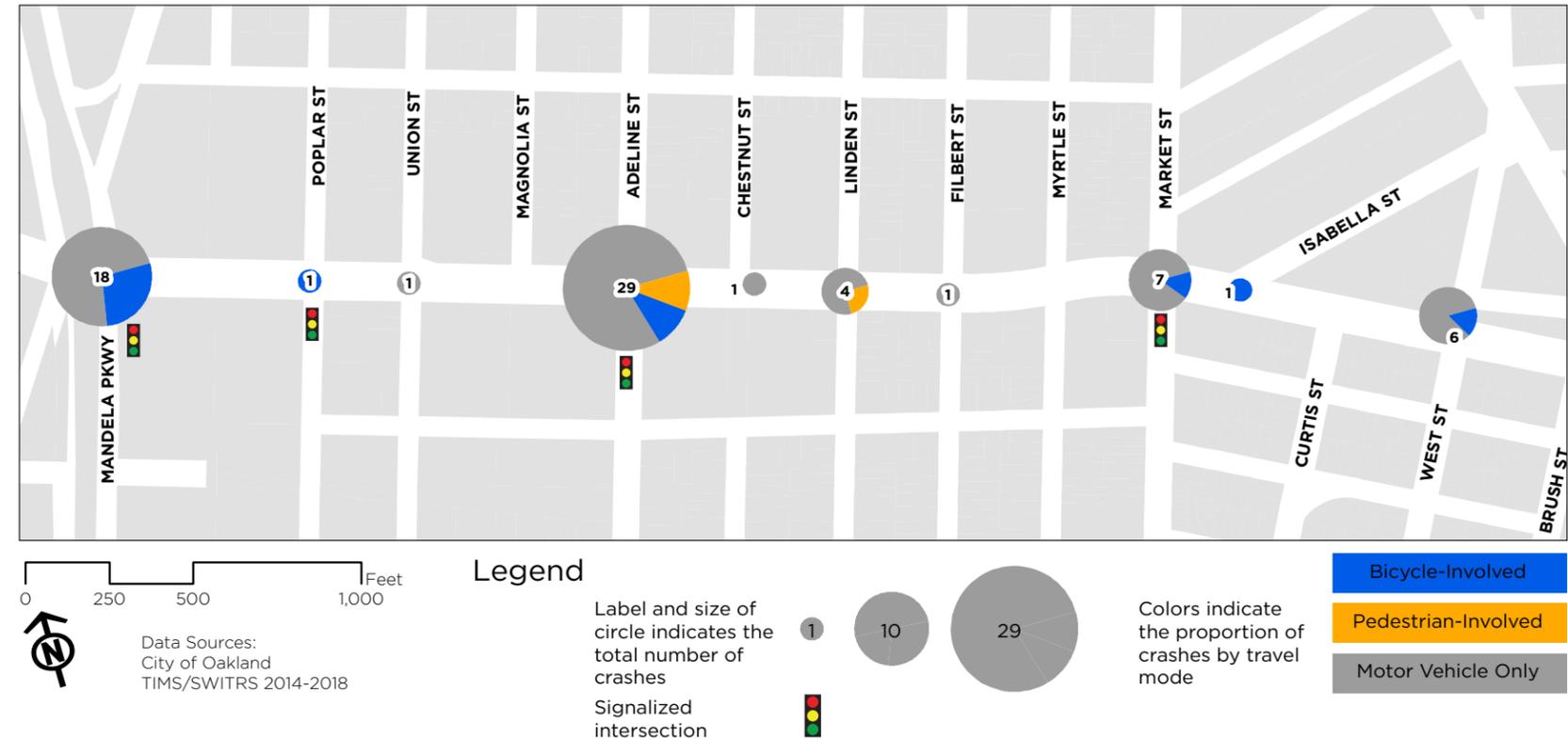


FIGURE 20: Downtown Collision Locations

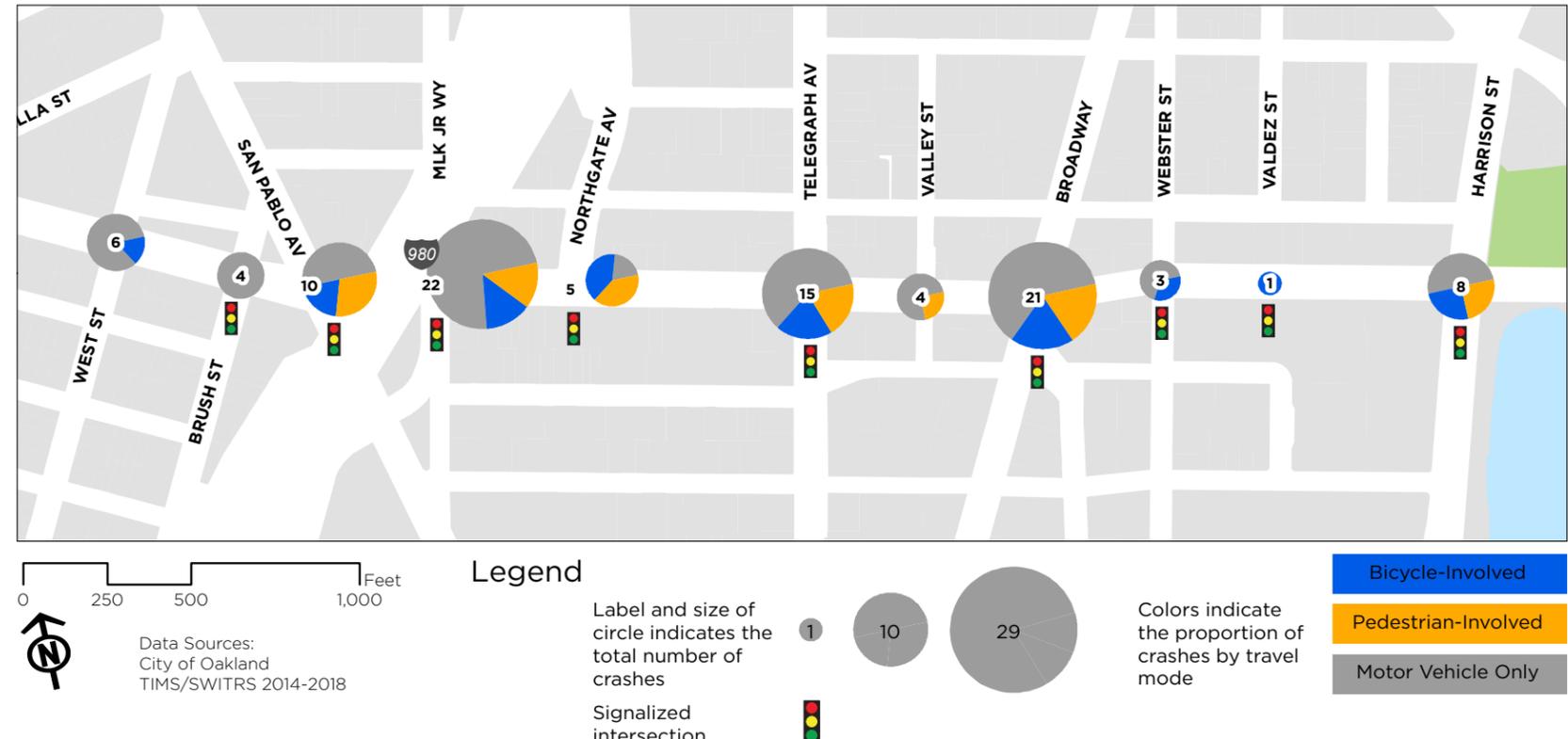
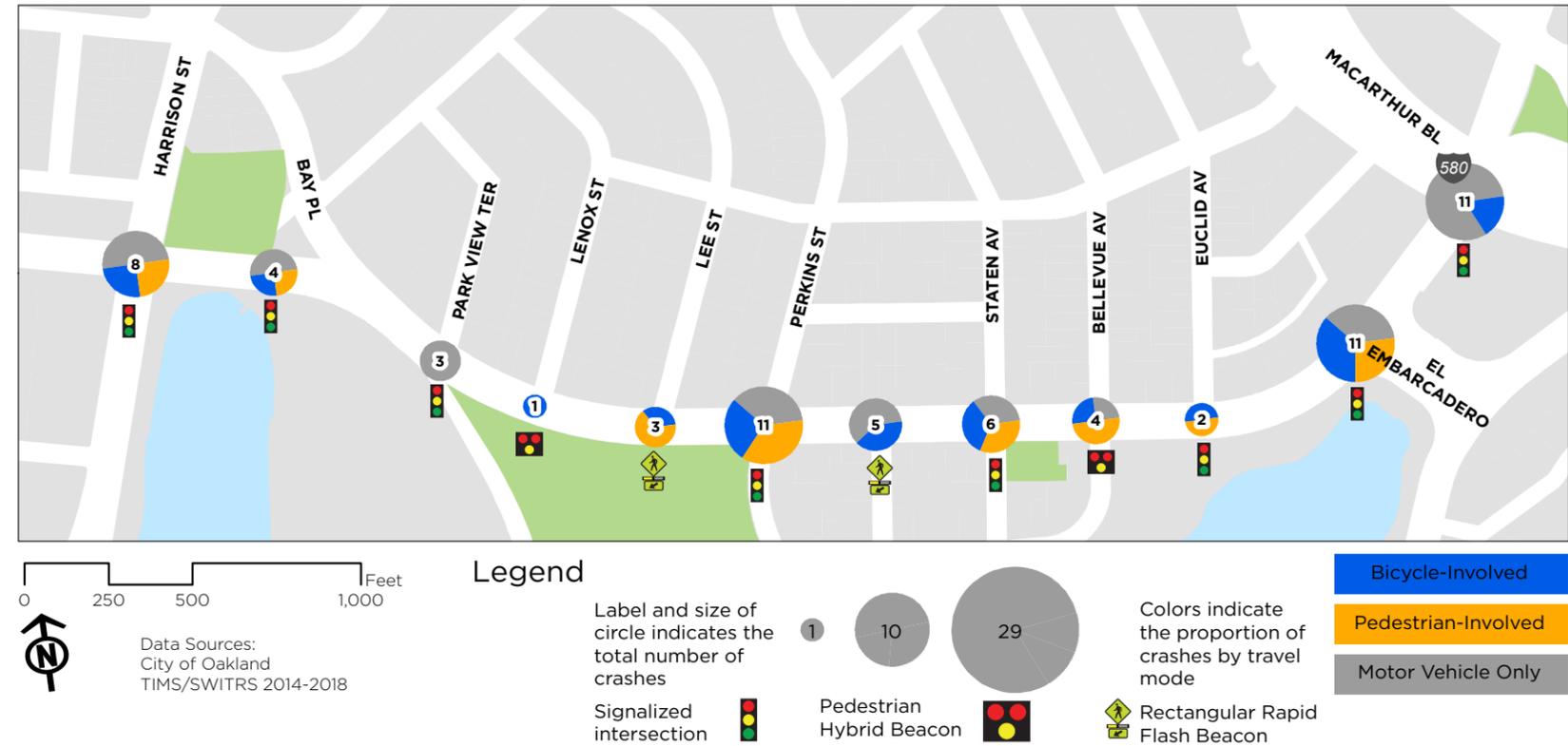


FIGURE 21: Adams Point Collision Locations



Travel Patterns

Based on an analysis of the Streetlight data, walking patterns vary across the three sections of the corridor. Of the pedestrian traffic that passes through the Adeline Street intersection, the majority of pedestrians are walking to destinations within the West Oakland or Downtown areas. Most pedestrian trips that originate in West Oakland tend to stay within West Oakland or Downtown areas. The Bay Bridge pedestrian and bicycle path was also shown to be a destination for pedestrians walking through Adeline Street. Based on an analysis of pedestrians passing through Telegraph Avenue, the Downtown segment of the corridor has many more pedestrian trips than the West Oakland segment.

Walking trips in this segment have a larger range of origins and destinations, spanning East Lake neighborhoods, West Oakland, North Oakland, and Jack London Square. The largest share of walking trips through this area originate from areas directly north and south of the Downtown corridor segment.

The Adams Point area of the corridor generates the most pedestrian activity of any segment. Most of these trips start or end north of Lake Merritt or in Downtown. The destinations and higher residential density in this area create the largest pedestrian catchment area, pulling or sending pedestrians from East Lake and Fruitvale to West Oakland to the Oakland Hills to Jack London Square.



Sidewalks in Downtown

WHAT'S THE EXPERIENCE LIKE?

Both walking along and crossing the Grand Avenue Corridor is a story of three neighborhoods. The West Oakland area, in addition to having the most travel lanes and highest vehicle speeds of the corridor, has the most broken or missing sidewalks and the most uncontrolled crosswalks without any infrastructure enhancements.

West Oakland was the only segment with missing sidewalks and both West Oakland and Downtown had segments with narrow or constrained sidewalks.

Signalized crossings are, on average, the furthest apart in West Oakland at about 1,000 feet apart, compared to about 400 feet in other areas. West Oakland is the only area with minimum standard transverse crosswalks at uncontrolled crossing locations; the one location in Downtown has better pavement markings and signs and the four uncontrolled crossings in Adams Point either have RRFBs or HAWK Beacons.

Within the Downtown area, the sidewalks are continuous and generally wide enough to handle higher volumes of pedestrian traffic. There are some areas within this area



The sidewalk environment underneath I-980 lacks sufficient lighting, even during the day.

that have constrained width due to parking meters and other utilities. Crossings within this segment are spaced about 400 feet apart.

Walking in the Adams Point area is the most pleasant experience. Sidewalks are uniformly wide and the Lakeside Park frontage area includes a landscaped buffer area. Crossings are spaced about 400 feet apart within the Adams Point area.

Transit

BY THE NUMBERS

Routes

The corridor is served by three AC Transit routes; none of which travel the entire length of the study corridor. The corridor is also briefly served by the Free Broadway Shuttle's Day Route with a stop at Webster. Detailed route characteristics are shown in Table 4 on pg. 46.

- **Route 12:** The 12 travels from 6th Street/Gilman Street in Berkeley to Jack London Square Amtrak via Martin Luther King Jr. Way, Pleasant Valley Avenue, and Broadway.



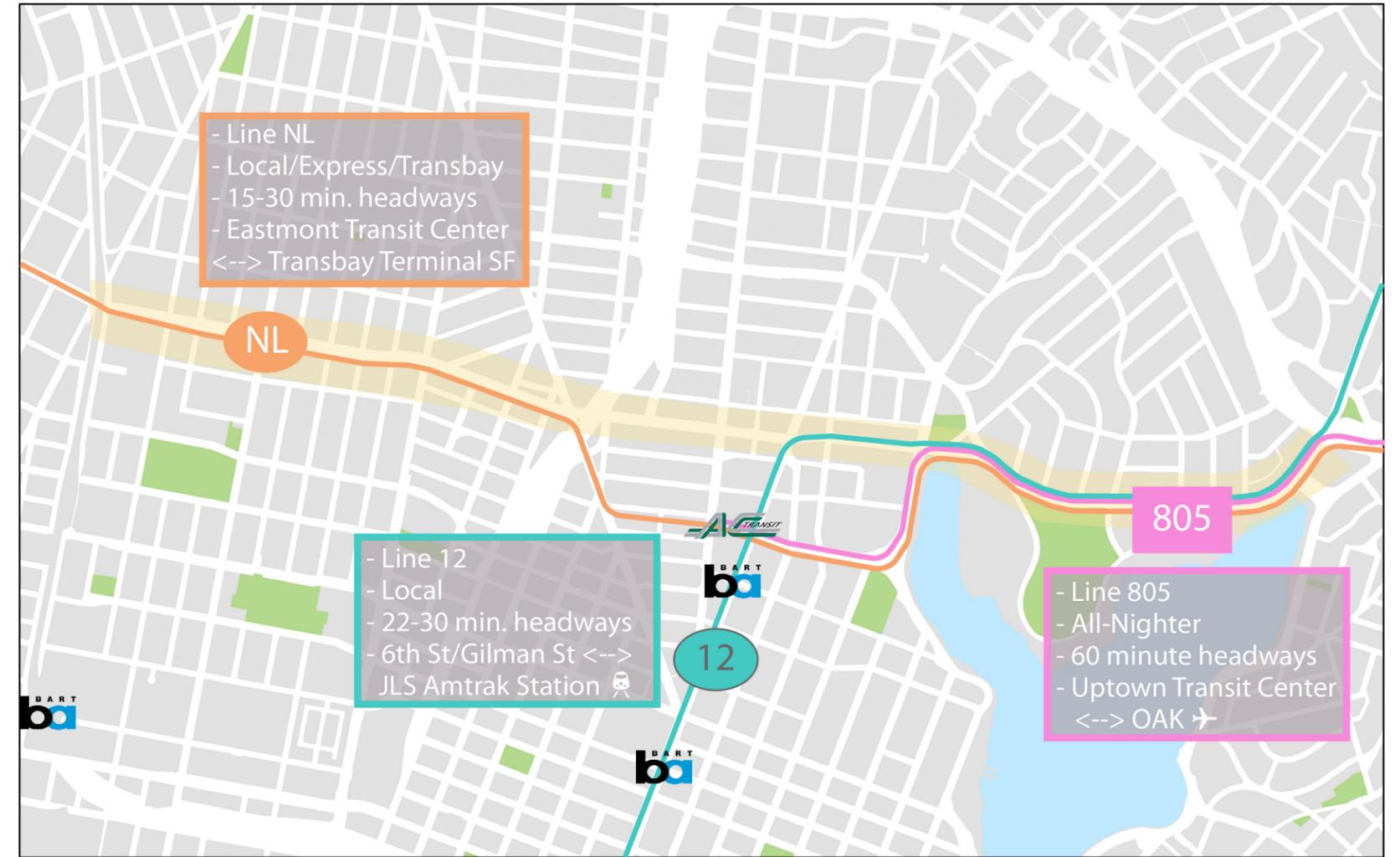
- **Route NL:** The NL provides transbay service from the Eastmont Transit Center to the Transbay Terminal in San Francisco via MacArthur Boulevard and Grand Avenue.

- **Route 805:** The 805 is an All-Nighter line serving the 19th Street BART/Uptown Transit Center and Oakland International Airport via Grand Avenue, MacArthur Boulevard, 73rd Avenue, and Hegenberger Road.

TABLE 4: AC Transit Route Characteristics

Route	Service Type	Service Span	Frequency	Weekday Average Daily Ridership FY 17/18	Year over year Change in Ridership
12	Local	Weekdays 5am–12am Weekends 6am–12am	Weekdays every 22-30 minutes Weekends every 30 minutes	2,801	+10.6%
805	Late night	Weekdays 12am–6:30am	Service every 60 minutes	128	-16.2%
NL	Local Express and Transbay	Weekdays 5am–12am Weekends 5am–12am	Weekdays every 15-30 minutes Weekends every 30 minutes	3,022	-5%

FIGURE 22: AC Transit Routes along Grand Avenue



Transit Travel Speed

Routes 12 and NL were included in the travel speed analysis. The 805 was excluded because it runs overnight in conditions when there are typically minimal traffic-related delays. Slowdowns were most pronounced in the peak direction of the Downtown and Adams Point segments with average speeds decreasing 25% in the eastbound direction during the evening peak hours and 7% in the westbound direction during the morning peak hours when compared with the average travel speed during other periods. Transit travel speeds in the West Oakland segment were relatively consistent throughout the day and by direction. West Oakland had the highest average travel speeds of 14.1 MPH. Table 5 and Table 6 show the average travel speed for each route by corridor segment.

TABLE 5: Westbound Bus Travel Speed (mph)

Route	Period	West Grand Avenue	Downtown	Grand Lake
NL	AM	13.44		9.44
12			8.52	9.80
NL	Midday	14.63		10.06
12			8.73	10.75
NL	PM	14.27		10.06
12			8.90	11.04

TABLE 6: Eastbound Bus Travel Speed (mph)

Route	Period	West Grand Avenue	Downtown	Grand Lake
NL	AM	15.01		12.95
12			10.28	12.47
NL	Midday	14.27		11.38
12			9.05	10.82
NL	PM	12.94		8.84
12			7.42	8.87

Travel Reliability

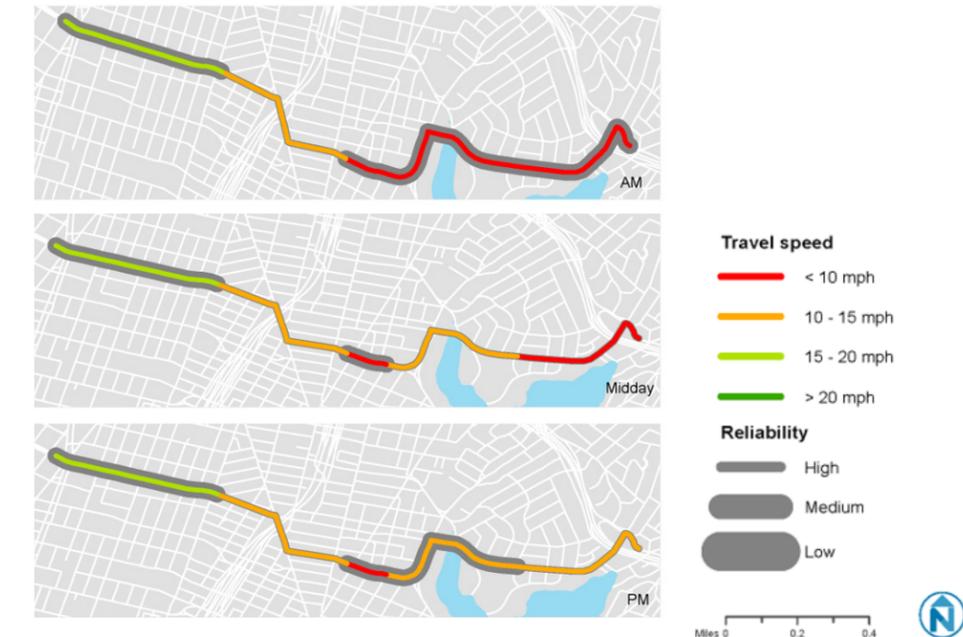
ROUTE NL

The NL operates in the West Oakland and Adams Point segments. In the peak direction, which is westbound in the morning and eastbound in the evening, the Adams Point segment consistently showed average travel speeds of less than 10 MPH. In contrast, the West Oakland segment showed average speeds of 15-20 MPH. This route experiences the greatest delay at Harrison Street, El Embarcadero, and MacArthur Boulevard/Lakeshore Avenue intersections. Figure 23 and Figure 24 show directional reliability for Route NL.

FIGURE 23: Eastbound Reliability for Route NL



FIGURE 24: Westbound Reliability for Route NL



ROUTE 12

The 12 operates in the Downtown and Adams Point segments. Travel speeds were lower than 15 MPH at all times of day in all directions, on both segments. The evening eastbound trips had the lowest speeds. On the Downtown segment, the route is subject to delays, particularly at Webster Street. In the Adams Point segment, the intersections at Harrison Street, El Embarcadero, and MacArthur Boulevard presented significant delays to service. Figure 25 and Figure 26 show directional reliability for Route 12.

FIGURE 25: Eastbound Reliability for Route 12

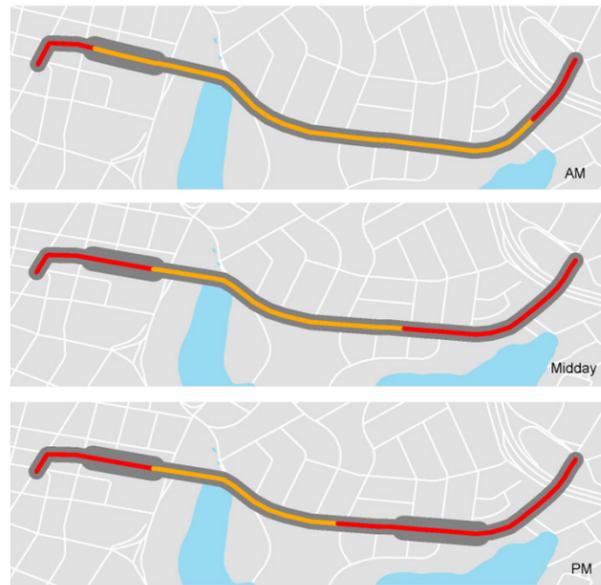


FIGURE 26: Westbound Reliability for Route 12



Route NL showed consistently higher speeds than Route 12. This makes sense because there are more stops on the local line, Route 12. Route NL operates as a limited-stop service with two stops in the Adams Point segment, compared to six on Route 12. Speed of travel can provide an indication of the traffic conditions and other elements in the built environment in which a route is operating. However, it can be also related to the type of route, the distance between stops and the number of intersections and crosswalks on the corridor. Focusing on these conflict points, locations where existing infrastructure could induce delay in transit operations, is an opportunity to address transit service reliability and the resulting delays can include installing transit priority infrastructures such as transit lanes, transit signal priority, and bus bulbouts/boarding islands. The number and type of corridor conflict points are summarized in Table 7.

TABLE 7: Corridor Conflict Points

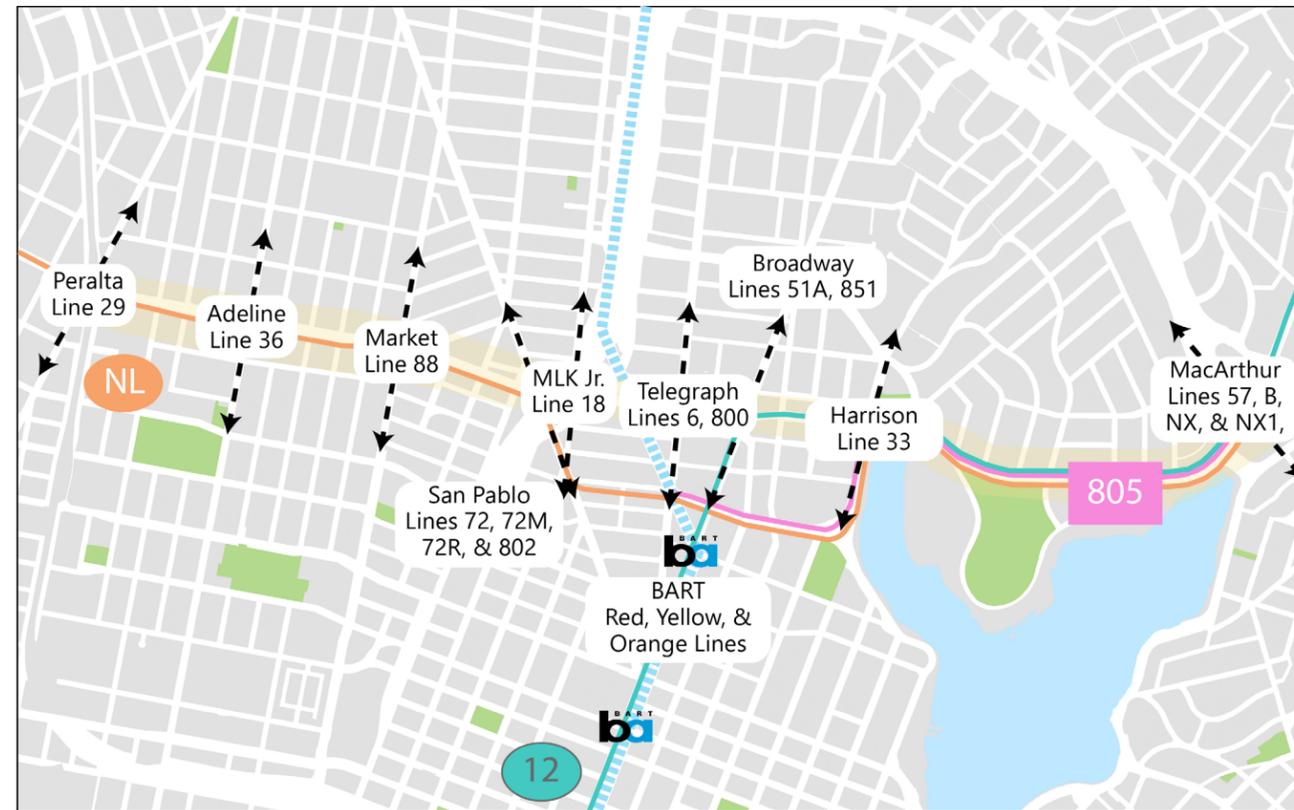
	West Grand	Downtown	Grand Lake
Intersections	14	8	11
Signalized Intersections	5	7	9
Marked crosswalks	9	8	11
Average distance between stops (Miles)	0.3	0.1	.16 (12) / .4 (NL)
Predominant land use	Industrial / Commercial	Mixed-use Commercial / Retail	Mixed-use retail / residential

Travel Patterns

TRANSIT REACH

Three lines directly serve the corridor, but many other routes cross the Grand Avenue corridor. The BART system is also accessible via 19th Street BART from Broadway.

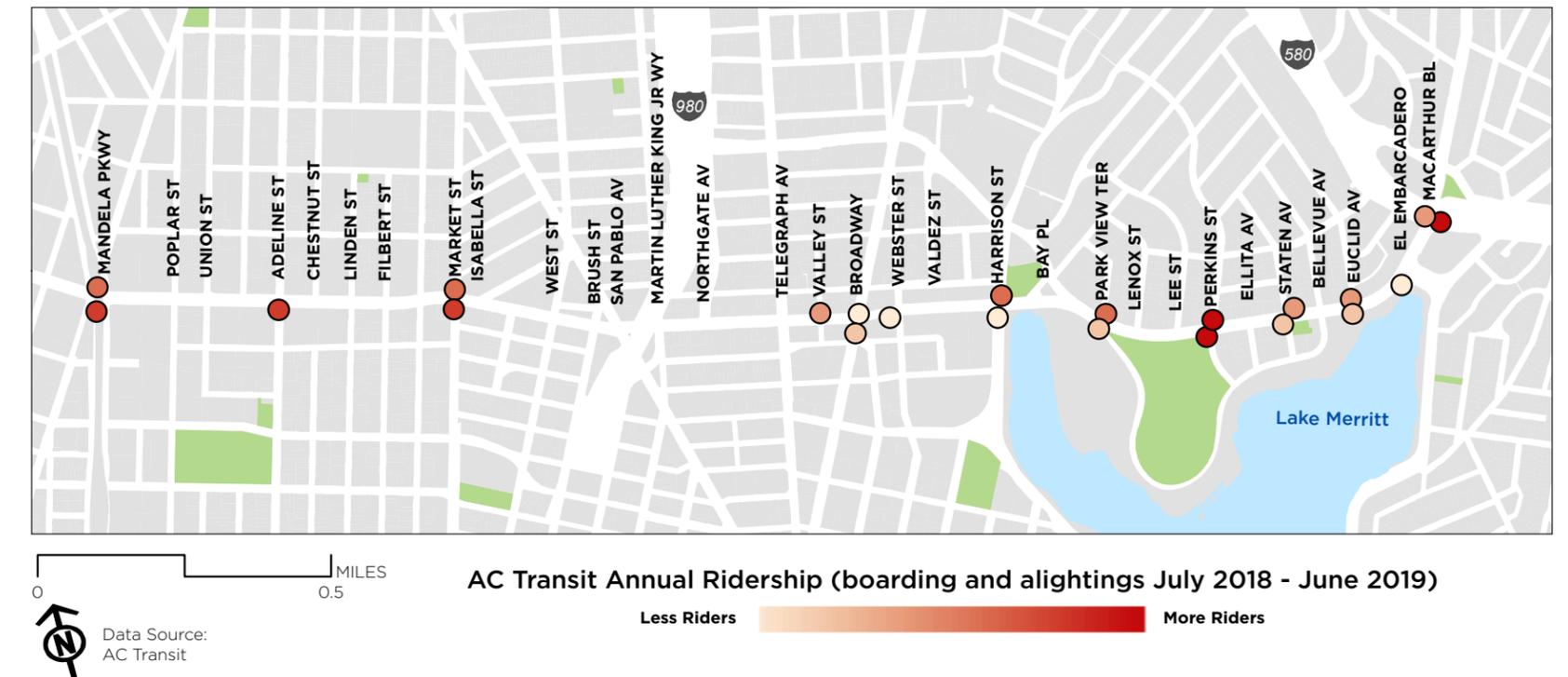
FIGURE 27: Transit Connections from Grand Avenue



RIDERSHIP

Across the corridor, there are 36 AC Transit bus stops that serve the three lines. On average, there are 950 boardings and alightings per day. Two stops are served by both the 12 and NL; these are two stops with the highest ridership activity. Both of these stops are at Grand Avenue/Perkins Street. The eastbound stop has about 158 boardings and alightings daily and the westbound stop has about 150 daily boardings and alightings. The third most active stop was the eastbound stop at MacArthur Boulevard, with about 137 boardings and alightings. Across the corridor, there were 131,950 trips taken that used stops along the corridor between July 2018 and June 2019. About 60% of these bus trips start or end in the Adams Point area and about one-quarter of them start or end in West Oakland.

FIGURE 28: AC Transit Ridership (Routes 12 and NL)



STOP INFRASTRUCTURE

There are 36 bus stops in the corridor. All stops have schedule holders, bus stops signage, and are ADA accessible. Ten stops (28%) have benches while seven stops (19%) have shelters. All bus shelters along the corridor, except one, are in the Adams Point section of the corridor. There is a shelter at one of the Broadway stops in Downtown. The only benches present in the West Grand segment are at Adeline Street stops.

WHAT'S THE EXPERIENCE LIKE?

The 12's shortest headway is 22 minutes on weekdays and every half hour on weekends. The 12 doesn't travel very fast through Adams Point and Downtown. The NL runs every 15 minutes at peak and every half hour off-peak. The NL faces similar slowdowns in Adams Point and Downtown as Route 12. AC Transit buses sit in the same traffic as the rest of the vehicles along the corridor.

The overnight All-Nighter route, 805, provides hourly lifeline service between Downtown Oakland and Oakland International Airport. Getting most places on transit via Grand Avenue currently requires at least one transfer to another bus or BART, Amtrak, or the ferry. Grand Avenue connects to many additional AC Transit lines across the corridor. Except for the overnight buses, travel speeds along the corridor are slowed because of traffic congestion and increased dwell times. Less than one-fifth of stations have bus shelters, less than one-third have benches, and none have real-time information; creating typically uncomfortable waiting environments for passengers. Walking or biking to a cross-street for other transit services is currently not a comfortable or low-stress experience, especially in West Oakland.

Bicycling

BY THE NUMBERS

Existing Bicycle Facilities

Bicycle facilities vary across the corridor. The section between Mandela Parkway and Market Street has three traffic lanes in each direction and no designated bicycle facility. The section of Grand Avenue between Market Street and San Pablo Avenue has two traffic lanes in each direction, the fewest within the corridor, plus continuous bike lanes. Grand Avenue between San Pablo Avenue and Telegraph Avenue has a bicycle lane, but three lanes of traffic in many places due to turning lanes. Bicyclists must also mix with turning lanes at several intersections, reducing their degree of separation from traffic. The bike lanes drop between Telegraph Avenue and Webster Street



and reappear east of Harrison Street. Bike lanes continue to El Embarcadero. There is only an eastbound bicycle lane between El Embarcadero and MacArthur Boulevard. Bicycle parking availability is limited and scattered throughout the corridor.

Future Bicycle Facilities

In 2022, W Grand Avenue between Campbell Street and Market Street will be repaved as part of the 2019 3-Year Paving Program. During the repaving, the street will reallocate roadway space by adding buffered bicycle lanes and going from three travel lanes in each direction to two, consistent with the West Oakland Specific Plan recommendations.

Level of Traffic Stress (LTS)

Bikeway Level of Traffic Stress (LTS) summarizes how streets with different traffic and bicycling facilities feel more or less comfortable for cyclists. Lower stress streets have less traffic or higher quality facilities, making them more comfortable to ride along. Conversely, higher stress streets are less comfortable because they have more traffic or lower quality bicycling facilities. The Grand Avenue Corridor has a mix of LTS levels, though the vast majority of its length is fairly high stress. No portions of the corridor are LTS 1.

The LTS score for each of the above segments is listed below with the roadway characteristics that led to the score. LTS scores for the corridor can be seen in Figure 29.



W Grand Avenue at Adeline Street

MANDELA PARKWAY - MARKET STREET:

The western section of the Grand Avenue Corridor, between Mandela Parkway and Market Street, is high stress (LTS 4). This section has three traffic lanes in each direction, no designated bicycle facility, and high vehicle speeds. This section of Grand Avenue also creates a barrier to north-south travel along several lower-stress cross streets, including Poplar, Linden, Filbert, and Myrtle. Intersection improvements at these cross streets would make it easier for bicyclists to cross Grand Avenue.



W Grand Avenue at Market Street, facing Downtown

MARKET STREET - SAN PABLO AVENUE:

The section of Grand Avenue between Market Street and San Pablo Avenue has the lowest level of traffic stress, LTS 2, along the corridor. This section has two traffic lanes in each direction, the fewest within the corridor, plus continuous bike lanes. However, not everyone would characterize the bike lanes adjacent to parked vehicles and two travel lanes as low stress.



An eastbound bicyclist east of Northgate Avenue

SAN PABLO AVENUE - TELEGRAPH AVENUE:

Heading east from San Pablo Ave, LTS levels increase to LTS 3 until Telegraph Avenue. This section has a bicycle lane, but three lanes of traffic in many places due to turning lanes. Bicyclists must also mix with turning lanes at several intersections, reducing their degree of separation from traffic.

TELEGRAPH AVENUE - WEBSTER STREET:

Between Telegraph Avenue and Webster Street, the bicycle lanes end, increasing bicyclists' exposure to traffic; this is LTS 4.



A bicyclist traveling eastbound towards Lenox Street

WEBSTER STREET - HARRISON STREET:

East of Webster Street the bicycle lanes reemerge, and LTS levels drop to LTS 3.

HARRISON STREET - EL EMBARCADERO:

East of Harrison Street, the Grand Avenue Corridor is predominantly LTS 3. Most of this section has bicycle lanes, though in some places they mix with turning lanes and bus stops at intersections. The majority of this section has two lanes in each direction, plus a center turn lane. Other bike lane conflict in this segment includes higher turnover street parking, passenger loading, and commercial loading.

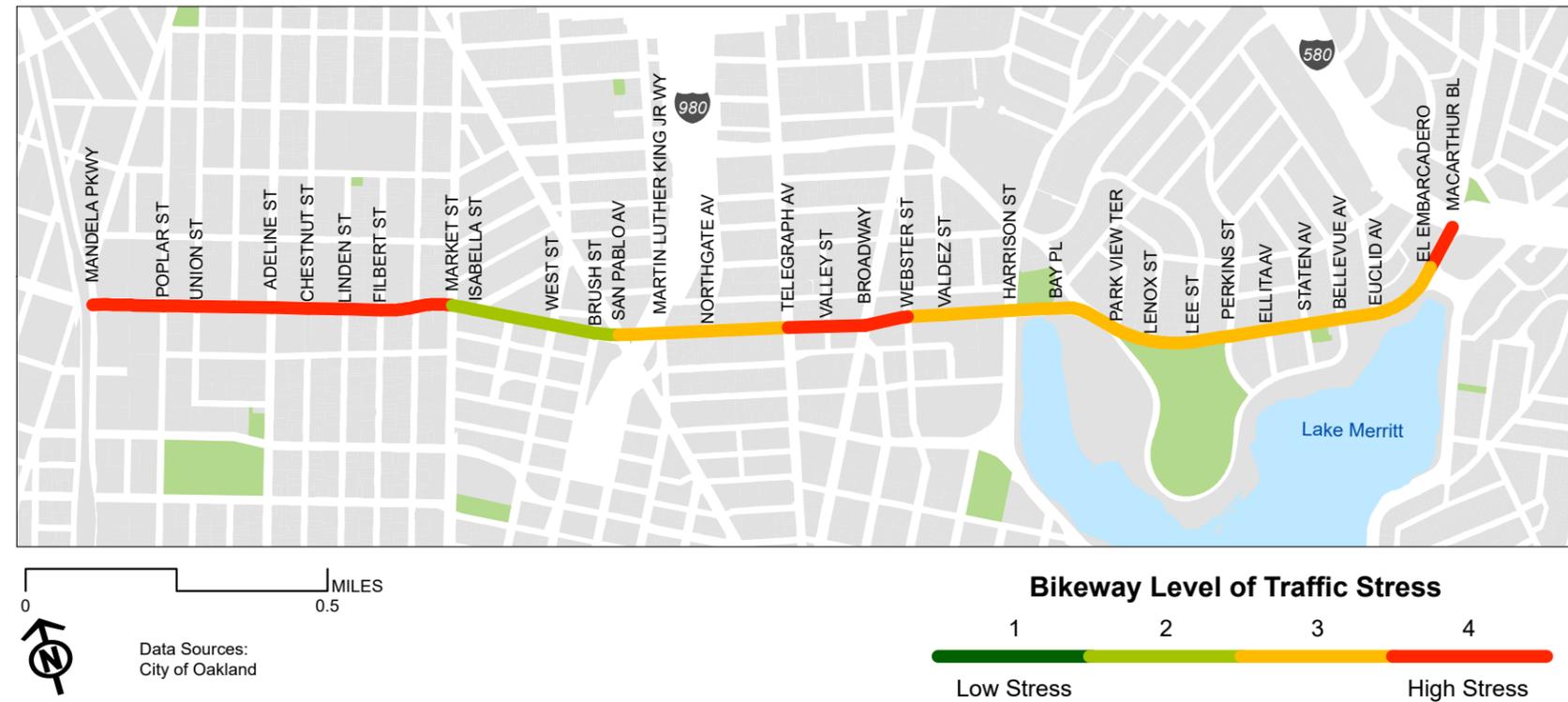


Bicyclists and cars mixing as they cross MacArthur Boulevard

EL EMBARCADERO - MACARTHUR BOULEVARD:

In the block between El Embarcadero and MacArthur Boulevard, there is no bicycle lane in the westbound direction, so LTS increases to 4.

FIGURE 29: Bicycle LTS on Grand Avenue



Bicycle Collisions

The locations of bicycle-involved collisions can be found on the maps in Figure 19, Figure 20, and Figure 21 on pages 40–42. Bicycle-involved collisions occurred at the following intersections:

- Mandela Parkway
- Poplar Street
- Adeline Street
- Market Street
- Isabella Street
- West Street
- San Pablo Avenue
- MLK Jr. Way
- Northgate Avenue
- Telegraph Avenue
- Broadway
- Webster Street
- Valdez Street
- Harrison Street
- Bay Place



Person biking at the intersection of Grand Avenue and Telegraph Avenue

- Lenox Street
- Lee Street
- Perkins Street
- Ellita Avenue
- Staten Avenue
- Bellevue Avenue
- Euclid Avenue
- El Embarcadero
- MacArthur Boulevard

Bicyclists-involved collisions account for about 21% of all collisions along the corridor.

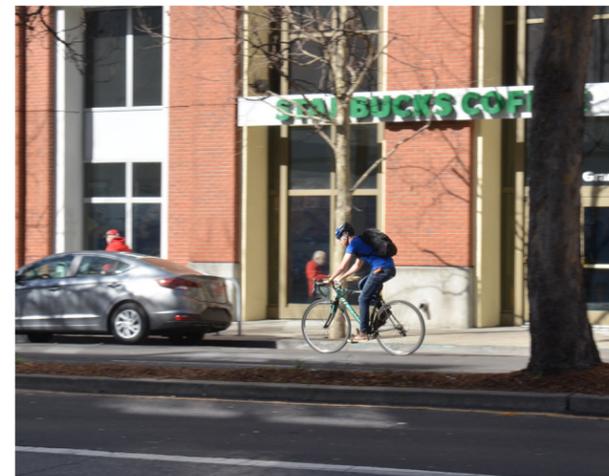
Travel Patterns

Based on an analysis of the Streetlight data, compared to other parts of the corridor, there are relatively few bicycle trips along the West Oakland segment of the corridor. This is likely in part to the high-stress experience and lack of bicycle facilities. The bicycle trips that did pass through the Adeline Street intersection tended to have more westerly origins and destinations. The corridor's largest share of bikes passes through the Downtown segment of the corridor. Of bicycle traffic that passes through the Telegraph Avenue intersection (Telegraph Avenue is a Class IV separated bikeway around W Grand Avenue), most origins and destinations are in Downtown, Uptown, Adams Point and to Lake Merritt. Bicyclists were observed traveling from as far as Mandela Parkway to the inner East Lake neighborhoods to Jack London Square to Emeryville. The Adams Point section of the corridor, similar to

pedestrians, pulls bicyclists from the most areas of the city and beyond. Downtown, Uptown, Adams Point, and Lake Merritt had the largest shares of bicycle origins and destinations.

WHAT'S THE EXPERIENCE LIKE?

Bicycling on most parts of the Grand Avenue Corridor is a stressful experience for many bicyclists. Currently, there are segments of the corridor with no bicycle lanes and other segments with standard bicycle lanes. These are higher stress facilities. Further, there are several mixing areas and intersection crossings throughout the corridor that are stressful for users. Grand Avenue connects to many other key bicycle corridors including Telegraph Avenue, Adeline Street, Mandela Parkway, and Lake Merritt. People scooting and using similar devices report similar experiences traveling along the corridor.



Top: Bicyclists traveling through the Bay Place intersection

Bottom: A westbound bicyclists approaching Valley Street.

Scooters

Shared electric scooters have been in Oakland since 2018. E-scooters provide additional mobility options for short trips and can also help bridge the first-last mile gap between transit. E-scooters are typically parked on the sidewalk, and when improperly parked, can obstruct the sidewalk and interfere with through travel, especially for those with special mobility needs. In addition to shared scooters, personal e-scooters and similar mobility devices have also grown increasingly popular. City of Oakland regulations require that these vehicles be driven in the street and not on the sidewalk; however, some users still use the sidewalk for riding.

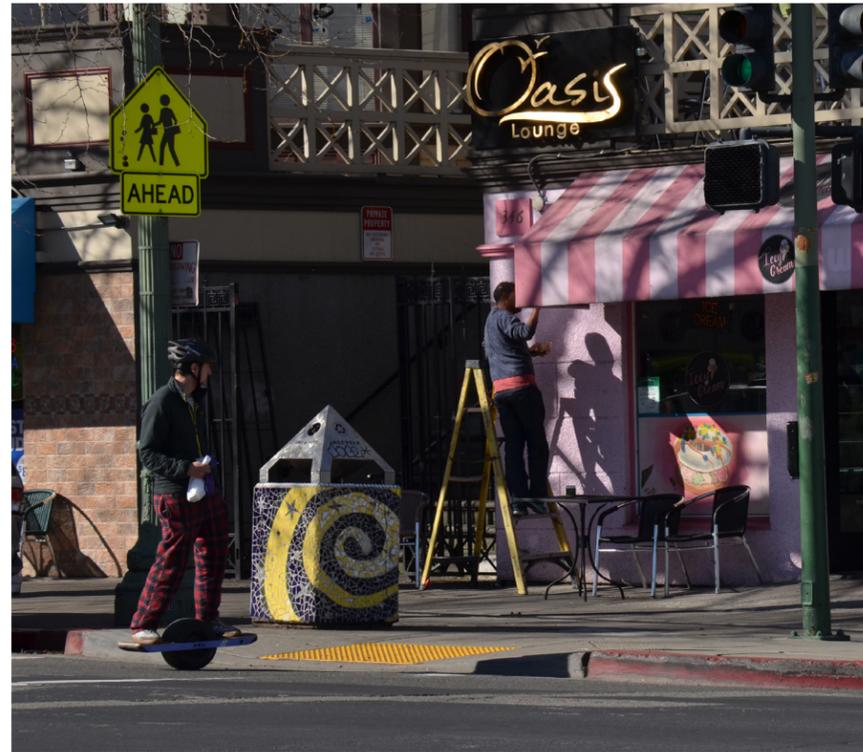


A person using a scooter along Grand Avenue in Adams Point

Grand Avenue is a popular corridor for e-scooters. Based on shared e-scooter data between June 2018 and February 2020, there are, on average, over 4,800 daily shared e-scooter trips that travel along or cross the Grand Avenue corridor. About 72% of shared e-scooter trips took place in the Adams Point segment of the corridor. About 20% of trips occur in Downtown, and the remaining 8% of trips are in West Oakland. In the over year-and-half of data analyzed, there were over 2 million shared e-scooter trips that touched the Grand Avenue corridor.



A person using a scooter along Grand Avenue in Adams Point



A person using a one-wheel hoverboard to navigate Grand Avenue in Adams Point

Cars

BY THE NUMBERS

Traffic

A traffic operations analysis was conducted to establish baseline vehicle congestion along the corridor. The data was collected during weekdays in October 2019 and was collected for two-hour morning rush (AM) and evening rush (PM) peak periods. Turning movement counts were collected for eight intersections across the corridor. The following intersections were studied:

- Mandela Parkway (south)
- Mandela Parkway (north)
- Adeline Street
- San Pablo Avenue
- Telegraph Avenue
- Broadway
- Harrison Street
- Perkins Street
- MacArthur Boulevard



Shops along Grand Avenue in Adams Point

Findings were measured using Vehicle Level of Service (LOS) analysis. Intersections are assigned a letter grade (A through F) based on average vehicle delay. The City of Oakland's target acceptable minimum threshold is LOS D.

During both the AM and PM periods (at the highest times for congestion), all but two intersections scored below LOS B. San Pablo Avenue and Harrison Street scored LOS C during both periods (City of Oakland). Under optimal operating conditions, all studied intersections along the corridor have excess operating capacity as currently configured. Table 8 on pg. 64 shows the results of LOS Analysis.

A vehicle queuing analysis was also conducted to measure how far cars back-up while waiting to move through an intersection. The analysis found that two locations have queuing spillover (queues where cars fill the block approaching the next traffic signal) at the Mandela Parkway and San Pablo Avenue intersections. This spillover is the result of limited available queuing space due to short block length (a design issue) and not an operational shortcoming due to the number of vehicles. All other queues have excess storage space except at the northbound and southbound approaches at the Telegraph Avenue intersection (City of Oakland).

TABLE 8: Peak Hour Intersection LOS (2019)

ID	Intersection Location	Traffic Control	AM Peak			PM Peak		
			Delay	LOS	Max. V/C	Delay	LOS	Max. V/C
1	Grand Avenue / Mandela Parkway (SB)	Signal	11.0	B	0.66	13.5	B	0.79
2	Grand Avenue / Mandela Parkway (NB)	Signal	10.9	B	0.50	15.1	B	0.72
3	Grand Avenue / Adeline Street	Signal	11.8	B	0.58	10.4	B	0.59
4	Grand Avenue / San Pablo Avenue	Signal	25.0	C	0.80	22.8	C	0.72
5	Grand Avenue / Telegraph Avenue	Signal	16.0	B	0.85	16.2	B	0.75
6	Grand Avenue / Broadway	Signal	10.6	B	0.55	12.4	B	0.63
7	Grand Avenue / Harrison Street	Signal	20.1	C	0.66	25.2	C	0.92
8	Grand Avenue / Perkins Street	Signal	13.1	B	0.73	14.5	B	0.80
9	Grand Avenue / MacArthur Boulevard	Signal	12.3	B	0.68	12.2	B	0.84

Delay is reported in average seconds per vehicle.

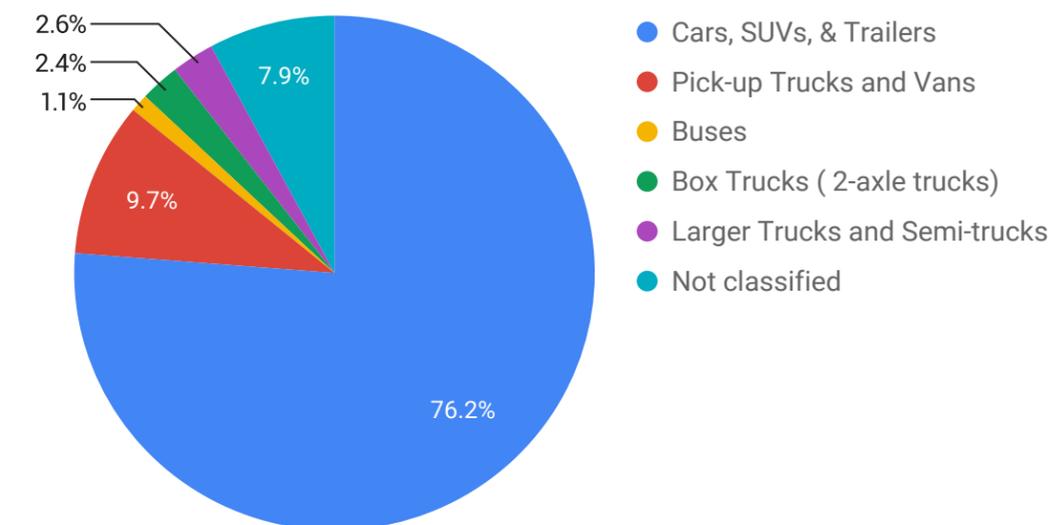
Max. V/C represents the maximum volume to capacity ratio per intersection movement for the identified intersection.

Vehicle Types

In October 2019, at the Mandela Parkway intersection, an analysis was conducted to count the types of vehicles traveling along the corridor. Figure 30 shows the breakdown of vehicle types at the Mandela Parkway intersection.

Three in four vehicles traveling on Grand Avenue at Mandela Parkway are personal vehicles (City of Oakland). Despite their smaller-share of roadway use, larger vehicles like trucks have the greatest impact on other users of the roadway and the surrounding environment.

FIGURE 30: Vehicle Types of Grand Avenue at Mandela



Parking

A parking occupancy study was conducted along the corridor to determine the existing parking capacity and use rate. Parking utilization is the percentage of the total parking spaces occupied at a specific point in time. Along the corridor, there are 585 legal parking spaces. Table 9 shows where those parking spaces are along the corridor.

Parking utilization data was collected for four periods (Friday evening, Saturday evening, Friday morning, and Tuesday morning) over a span of 13 days. Counts occurred in October and November 2019. Overall corridor parking utilization is 66% on average; neighborhood averages range between 40% and 89%. The Downtown and Adams Point segments were significantly more utilized on average. The higher residential and commercial/office density in Downtown and Adams Point contribute to a more consistently higher demand for parking in those areas. Table 10 shows the parking utilization rate for each section of the corridor on average and by observation period.

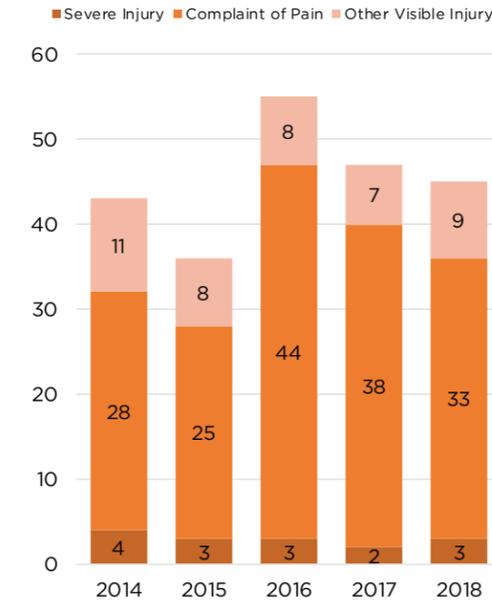
TABLE 9: Grand Avenue Parking Allocation by Area

	West Oakland	Downtown	Adams Point	Total
Total Spaces	263	135	187	585
% of Corridor	45%	23%	32%	100%

TABLE 10: Parking Utilization

Count	West Oakland	Downtown	Adams Point	Corridor-wide
Friday PM	34%	79%	76%	58%
Saturday PM	29%	78%	95%	61%
Friday AM	47%	99%	89%	72%
Tuesday AM	50%	100%	80%	71%
Average	40%	89%	85%	66%

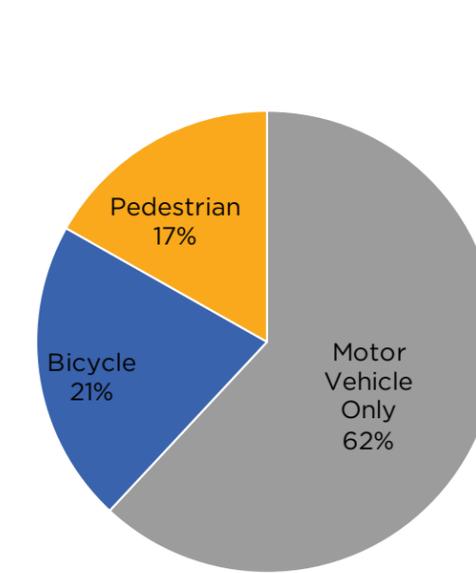
FIGURE 31: Annual Collisions by Severity



Collisions

The entirety of the study corridor is within Oakland’s High Injury Network. The High Injury Network include the 6% of streets that account for 60% of all severe and fatal traffic collisions. This collision analysis aims to better understand the locations and contributing factors of collisions along the study corridor, using data provided by UC Berkeley’s Transportation Injury Mapping System (TIMS) between the

FIGURE 32: Collisions by Mode



dates of 1/1/2014 and 12/31/2018. All collisions occurring within 75 feet of the study corridor were included in the analysis. There were a total of 226 reported collisions along the study corridor during the 5 years studied, resulting in 284 injuries. These stats only account for collisions reported to the police. Non-reported collisions and close-calls are not included.

FIGURE 33: Collisions by Mode & Severity

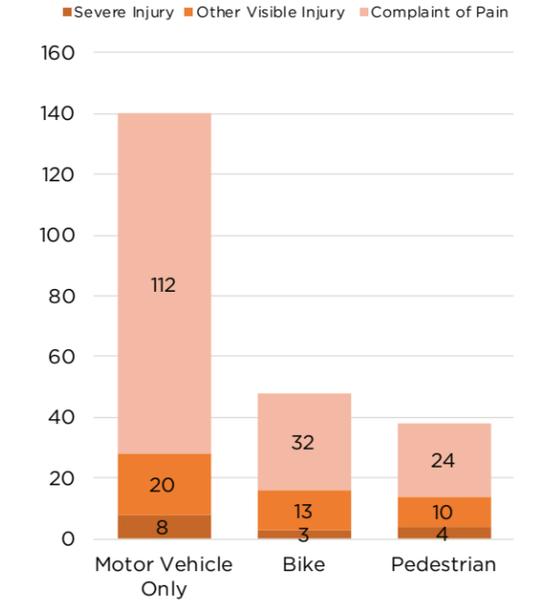
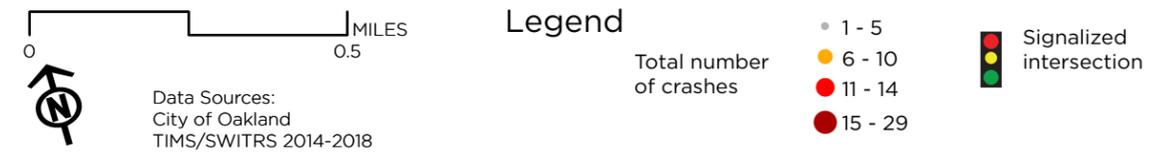
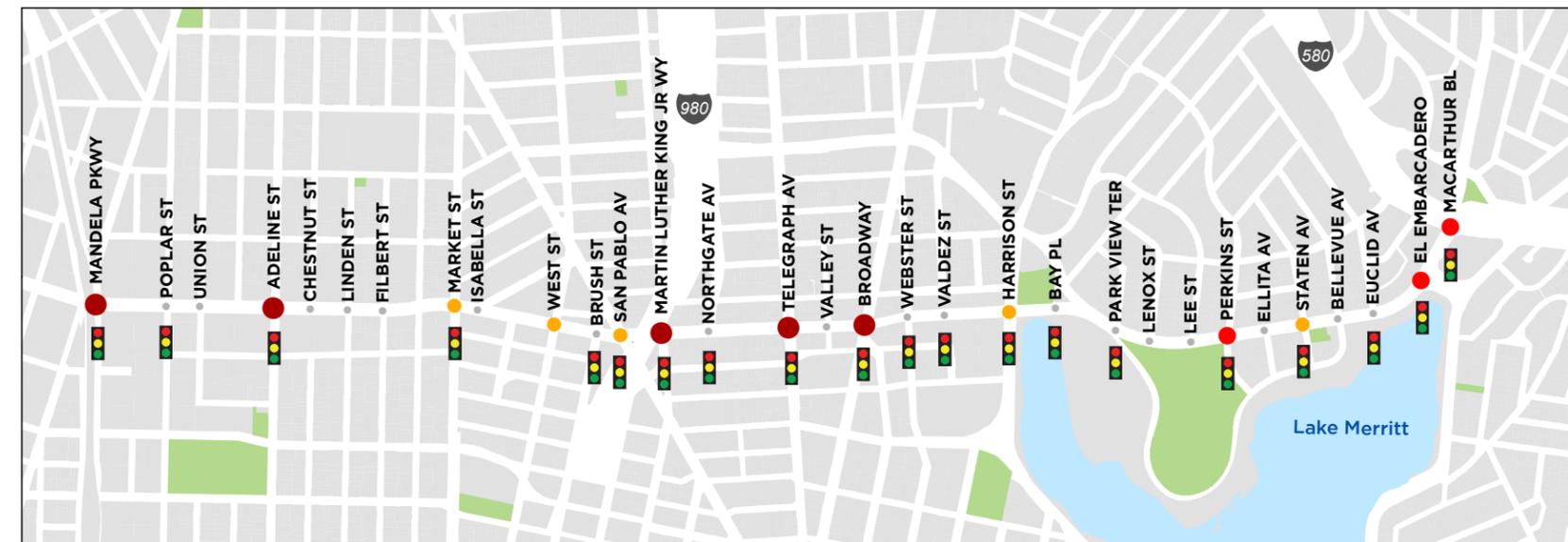


Figure 31 shows the number of collisions and their severity for each year. No collisions that resulted in a fatality were reported in the study corridor. Figure 32 shows that 17% of all collisions involved a pedestrian, 21% involved a bicyclist, and 62% were motor vehicle only crashes. Figure 33 further breaks these numbers down by collisions severity for each mode.

Three of the 36 intersections along the corridor did not have any collisions, and five had 15 or more collisions, including Mandela Parkway, Adeline Street, MLK Jr. Way, Telegraph Avenue, and Broadway. Adeline Street had the most collisions of any intersection on the corridor, with a total of 29. Figure 34 below illustrates the total number of collisions aggregated to the closest intersection. As shown in this map, collisions are not distributed equally along this corridor.

FIGURE 34: Total Collisions by Intersection



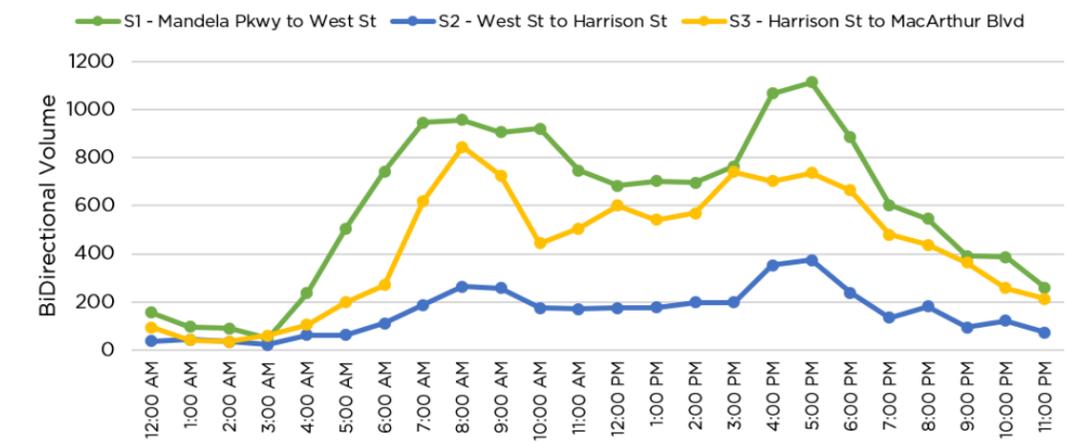
Travel Patterns

WHERE ARE PEOPLE GOING?

Based on an analysis of Streetlight data¹, each of the three corridor segments has slightly different travel patterns. The graphs below explore hourly traffic data for mid-week weekdays in September 2019. In order to be included in this analysis, a trip must travel the full length of the segment, between the start and endpoints.

A review of bi-directional hourly volumes shows that West Oakland has the highest hourly volumes at all hours of the day, as well as the most pronounced rush hour peaks. Downtown, on the other hand, tends to have lower hourly volumes at all hours, with the least pronounced rush hour peaks.

FIGURE 35: Hourly Bi-Directional Traffic Along Corridor Segment



¹ Streetlight Data (Streetlight) provided multimodal counts for vehicles, bicyclists, and pedestrians along the corridor. Streetlight uses anonymized location data from smartphones and connected in-vehicle navigation devices that have been processed through an algorithm that determines the mode of travel to provide counts for each mode. Known limitations of the data include: 1) The population that contributes to this data is limited to those with smartphones or other GPS-enabled devices; undercounting some trips and 2) Modal classification relies on the accuracy of Streetlight's algorithm to classify trips; trips traveling at an uncharacteristic speed may be incorrectly categorized.

A review of average vehicle speeds by hour shows that West Oakland tends to have the fastest traffic, averaging just under 30 MPH for most of the day. In contrast, traffic traveling along Downtown tends to feature speeds around 15 MPH.

Not surprisingly, the traffic speeds observed in the Streetlight data have a relationship to congestion: segments with lower congestion tend to have higher speeds (e.g. West Oakland), while segments with higher levels of congestion tend to have slower speeds (e.g. Downtown). In the graph below, the average hourly congestion is shown by segment, with higher numbers in the Y-axis representing greater levels of congestion.

FIGURE 36: Average Hourly Speed Along Corridor Segment

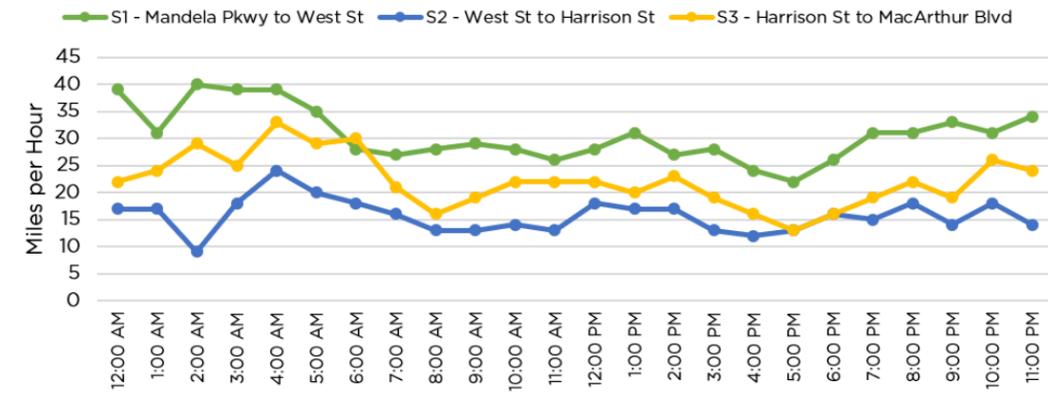
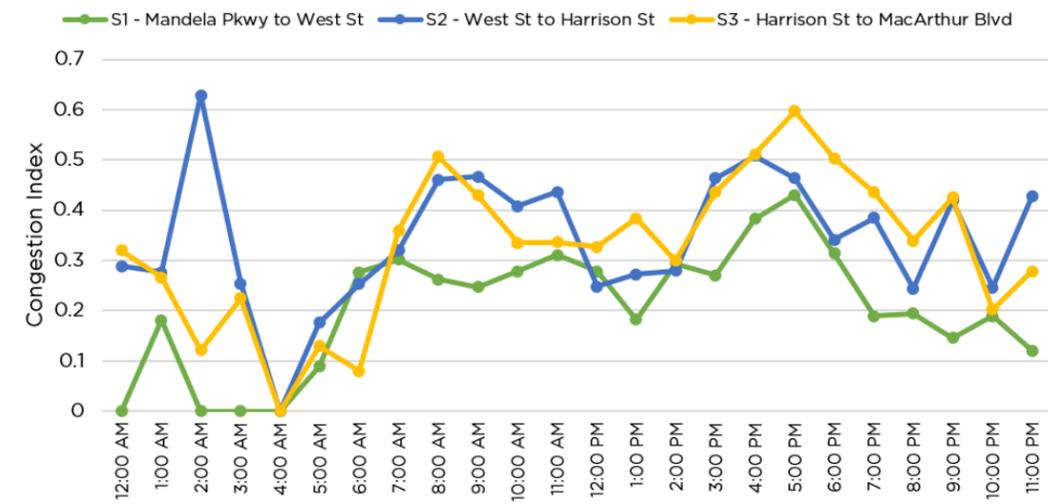


FIGURE 37: Hourly Congestion Along Corridor Segment



In terms of vehicle trips, within the West Oakland segment, many trips from this area start or end in the Downtown area or residential area immediately west of it. A sizeable number of trips originating from this area travel to Downtown San Francisco. The industrial area south of W Grand Avenue is a popular destination. With the Downtown area, there are many trips that stay within this area. The areas south of the corridor and West Oakland generate a lot of origins and destinations. There are still trips to/from San Francisco from the Downtown Oakland area, but a smaller share of trips than the West Oakland area. The Adams Point area has the largest number of both origins and destinations. This area also has the highest share of trips that originate/end in East Oakland. Figure 38, Figure 39, and Figure 40 show the trip patterns for each of the three corridor segments.

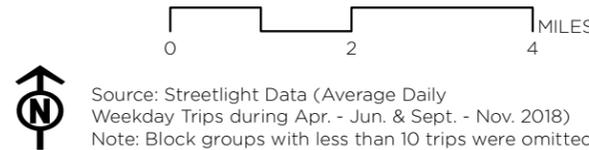
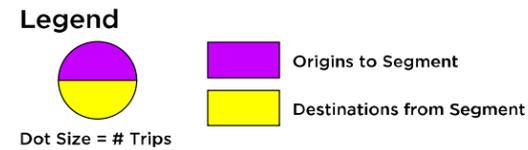


Traffic at the San Pablo intersection

FIGURE 38: Vehicle Trips Passing Through Grand Avenue at Adeline Street

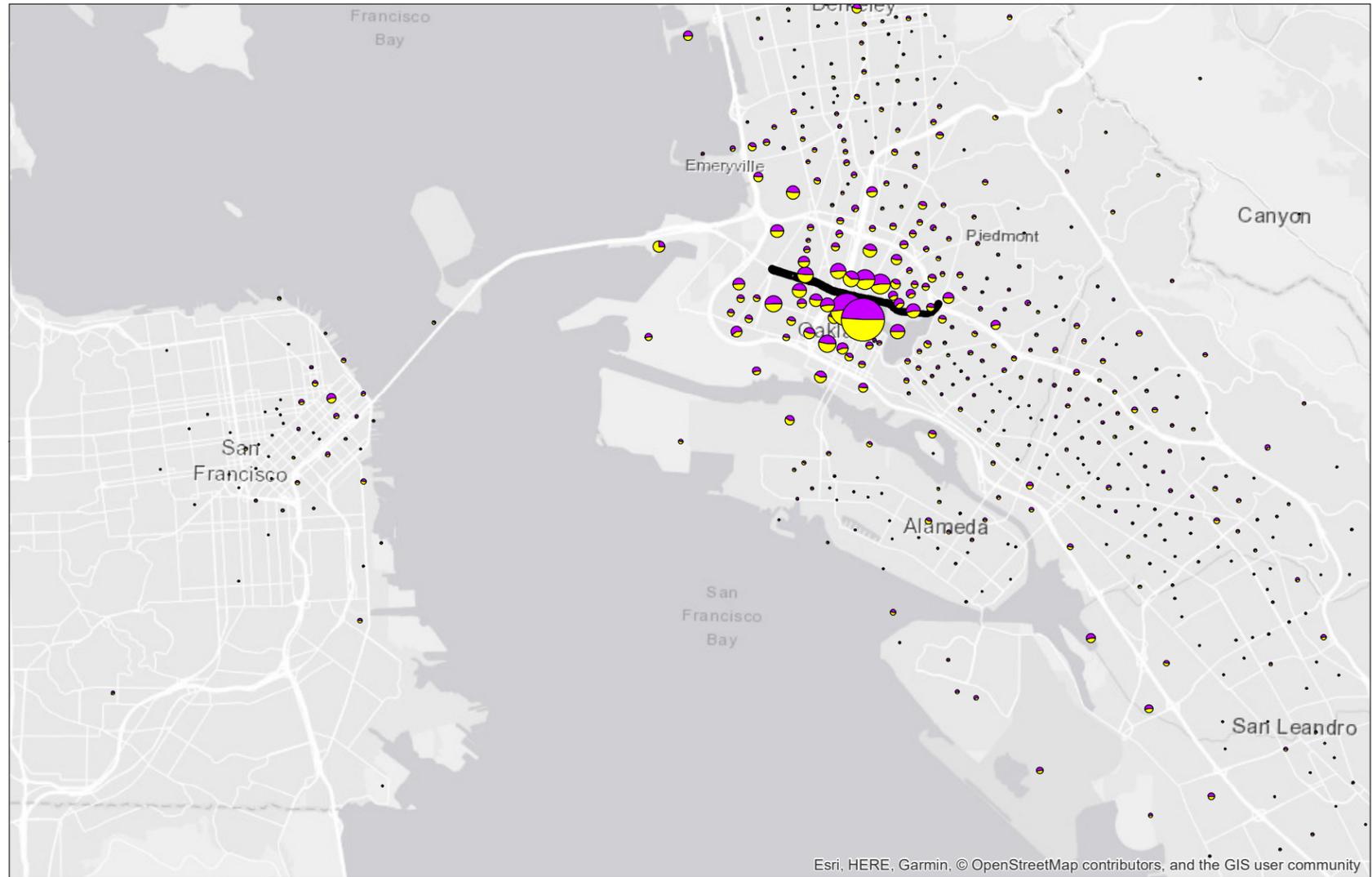


Segment 1 @ Adeline Street:
All Vehicles
Average Weekday Origins
& Destinations by Block Group

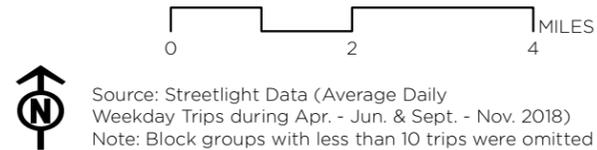
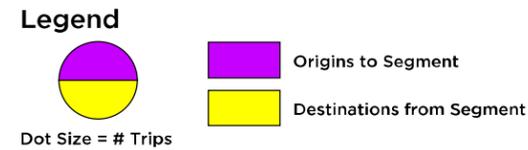


Existing Conditions

FIGURE 39: Vehicle Trips Passing Through Grand Avenue at Telegraph Avenue

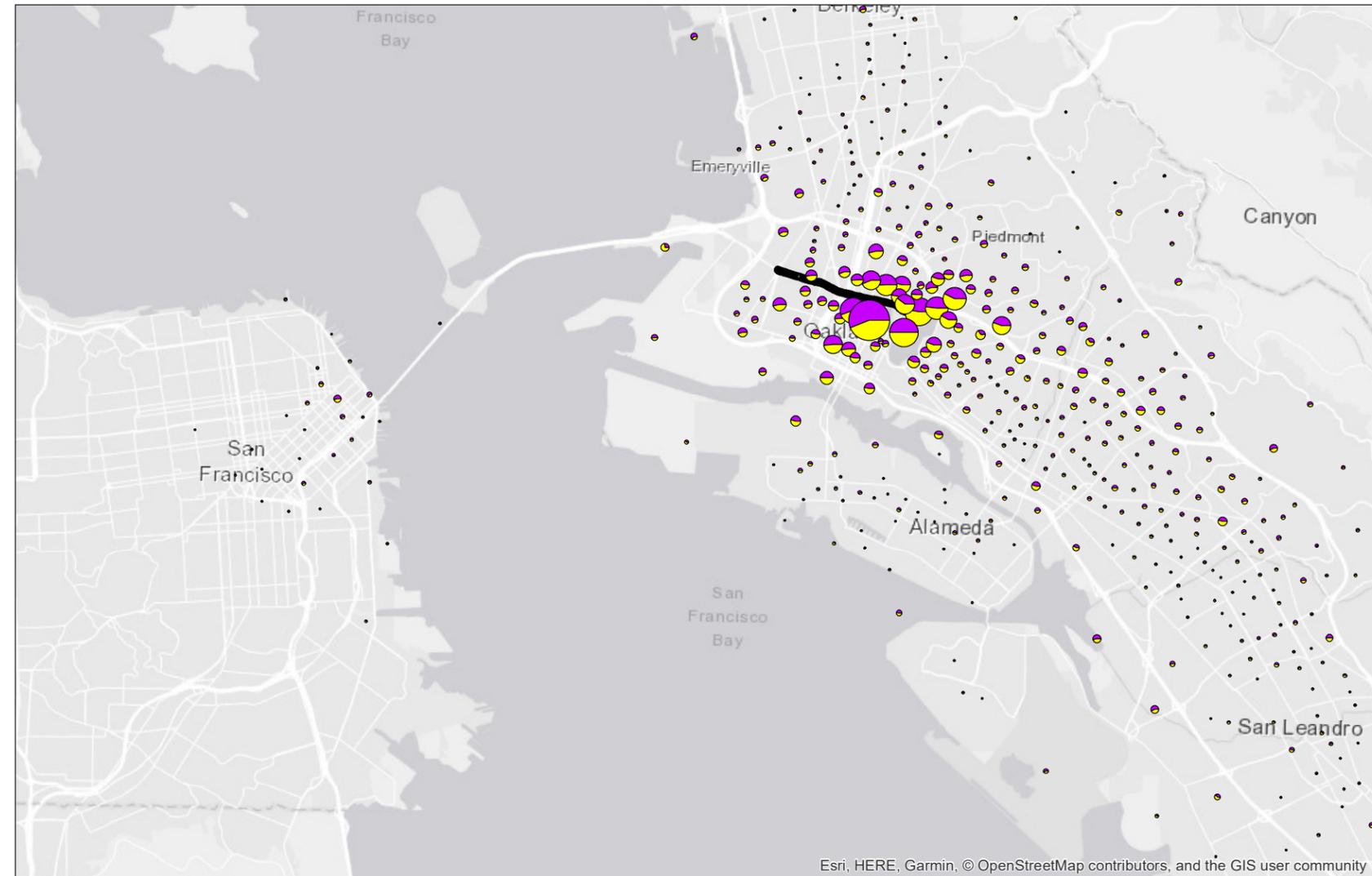


Segment 2 @ Telegraph Ave:
All Vehicles
Average Weekday Origins
& Destinations by Block Group



Existing Conditions

FIGURE 40: Vehicle Trips Passing Through Perkins Street



Segment 3 @ Perkins St:
All Vehicles
Average Weekday Origins
& Destinations by Block Group

Legend

- Origins to Segment
- Destinations from Segment

Dot Size = # Trips



Source: Streetlight Data (Average Daily Weekday Trips during Apr. - Jun. & Sept. - Nov. 2018)
Note: Block groups with less than 10 trips were omitted

Existing Conditions

WHAT'S THE DEAL WITH CUT-THROUGH TRAFFIC?

I-580 is a common destination for many vehicles that travel along the Grand Avenue Corridor, including those exiting the Bay Bridge. In some cases, vehicles are using the corridor as a cut-through street to avoid highway congestion. On-ramps are accessible via MacArthur Boulevard, Harrison Street, and via I-980 from Brush Street or Northgate Avenue. Based on an analysis of Streetlight data, between 5 to 8% of eastbound vehicles that travel through the Adeline Street intersection get on I-580. The majority of these vehicles travel east on I-580. Of these I-580-bound vehicles, about 31% of them travel all the way to MacArthur, 28% enter via Northgate Avenue/I-980, and the remaining vehicles scatter to other on-ramps.

Vehicles accessing I-580 accounted for about 20% of eastbound traffic through the Telegraph Avenue intersection. Of these vehicles, 67% of them continue to the MacArthur Boulevard on-ramp and 17% enter via Harrison Street. I-580 bound traffic spikes in the mid-afternoon and overnight hours.

Existing Conditions

FIGURE 41: Traffic on Grand Avenue at Adeline Street Going to I-580

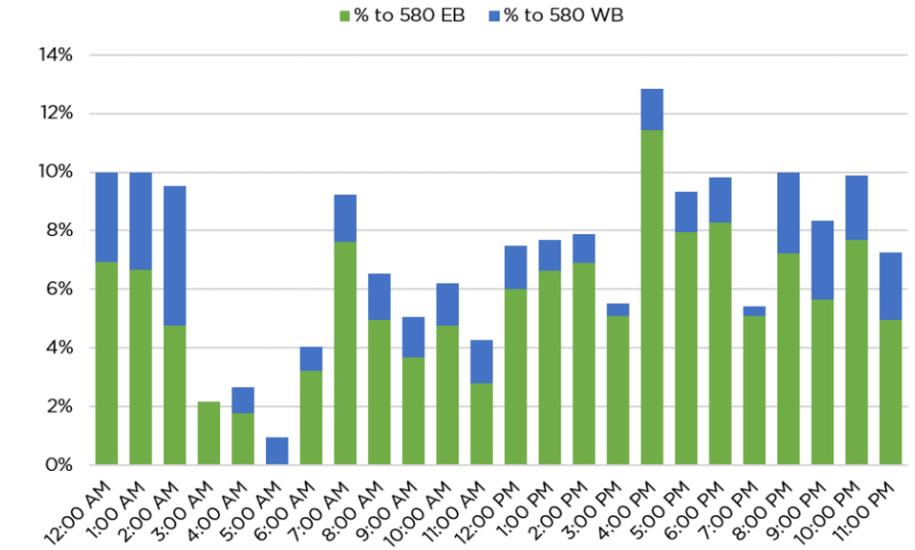
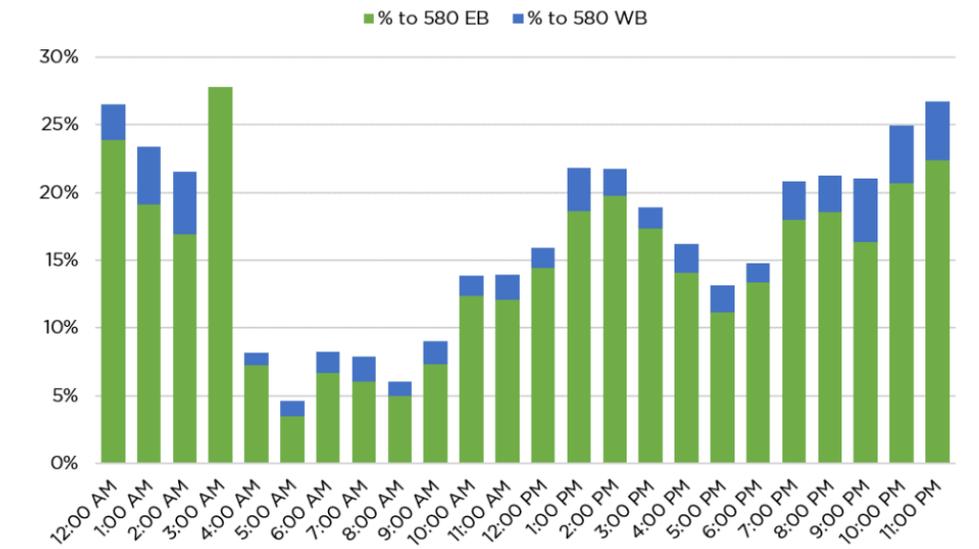


FIGURE 42: Traffic on Grand Avenue at Telegraph Avenue Going to I-580



Existing Conditions

WHAT'S THE EXPERIENCE LIKE?

Traffic typically flows through intersections with minimal delay and mostly acceptable queuing. Traffic and congestion patterns followed typical morning and afternoon peak periods. Average speeds varied by segment, but are fairly consistent throughout the course of the day; there is a notable increase in average speed in all three areas during the overnight hours. The West Oakland segment experiences the highest on average speeds, around 25-30 MPH. The Downtown segment had the slowest average speeds, around 10-15 MPH. The Adams Point segment has average vehicle speeds of about 15-20 MPH. Shorter distances between traffic signals and increased volumes of pedestrians crossing are some of the factors contributing to slower speeds in the Downtown and Adams Point areas.

Parking conditions vary depending on what neighborhood you are in. Parking is typically more available in the West Oakland area, but very tight in both the Downtown and Adams Point areas.



Afternoon rush hour approaching I-580

Parking on side streets was fairly well utilized across the corridor, even in West Oakland where it was observed that local workers prefer to park on the side streets instead of W Grand Avenue.

Trucks

BY THE NUMBERS

Based on available data from the Mandela Parkway intersections, trucks account for about 5-10% of vehicle traffic along the corridor. Most of the truck traffic is within the West Oakland section of the corridor. A breakdown of vehicle traffic along the corridor can be seen in Figure 30 on pg. 65.

The W Grand Avenue segment of the corridor is a truck route. As large vehicles, trucks pose additional impacts on local communities including emissions, sound, and parking-related problems. These are burdens that residents of West Oakland have had to disproportionately bear. These problems



A truck travelling along Grand Avenue in West Oakland

and solutions towards mitigations are codified in many recently adapted plans including Owing Our Air, West Oakland Truck Management Plan, West Oakland Specific Plan, and Seaport Air Quality 2020.

Improvements include parking regulations, routing changes, engine standard changes, improved signage, and improved/targeted enforcement.



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Summary & Trends

Key Policy & Plan Objectives

Grand Avenue is a complex corridor that serves an array of both local and regional needs. The corridor transverses three distinct neighborhoods, each with its own unique transportation characteristics, challenges, and needs.

Regional Goals

- Improve transit reliability, speed, and throughput across the corridor
- Provide zero-emission transit services
- Maintain freight access and throughput along the corridor
- Reduce emissions with all Port-related activities
- Minimize the impact of trucks on local neighborhoods

Local Goals

- Serve existing residents' transportation needs
- Improve the safety and comfort of those walking and biking along and across the corridor
- Improve local transit access
- Improve safety and reduce congestion in Downtown and Adams Point
- Improve connectivity to BART stations
- Improve air quality for local residents
- Minimize the impacts of truck emissions and truck parking in residential areas
- Foster equitable investments across the corridor and neighborhoods

Differences Between Areas

WEST OAKLAND

Grand Avenue is defined by the three areas it travels through. In West Oakland, the corridor is its widest with three travel lanes in each direction and the furthest average distance between signalized intersections. Vehicular traffic is prioritized in the area and this segment has the highest average vehicle speeds. Parking is most-underutilized in this neighborhood. There are no bicycle facilities in this segment of the corridor, nor is there enhanced pedestrian crossing infrastructure at any of the uncontrolled crossings. Land uses fronting the corridor are industrial in the western part of the segment and a mix of residential and commercial in the eastern segment. Residential uses bookend the aforementioned fronting industrial and commercial uses.

DOWNTOWN

Moving east, the character of the street and buildings transform. The corridor slows down with more signalized intersections and with pedestrians and bicyclists present in greater volumes as building heights and density rise. Parking is very well utilized in this segment. There are bike lanes present for part of this segment, except between Telegraph and Webster. There is only one uncontrolled pedestrian crossing of W. Grand Avenue at Valley Street. Distances between crossings are about 400 feet.

ADAMS POINT

The Adams Point section of the corridor is similar in terms of roadway characteristics to Downtown, but the surrounding land uses are very different. North of the corridor, land uses become residential and Lake Merritt is south of the corridor. A higher density of commercial uses also begin to front the corridor moving east. Parking is very well utilized in this segment. Bicycle lanes are continuous in the segment except in the one-block segment between El Embarcadero and MacArthur where there is only an eastbound bike lane. Pedestrian crossings are uniformly controlled or signalized, providing dedicated time and making it easier and safer for people to cross Grand Avenue.

Modal Trends

CARS

Vehicles constitute the primary vehicle type using Grand Avenue, but the corridor is used by a number of different vehicle types including trucks and buses. Vehicle traffic typically flows fairly well across the corridor. There are speed slowdowns and increased congestion during peak commute periods. All studied intersections operated above LOS vehicle delay levels and there were no major queuing issues. Vehicle parking is very well utilized in both the Downtown and Adams Point segments.

TRANSIT

Grand Avenue has three AC Transit routes that operate on various segments of the corridor, the 12, NL, and the 805 All-Nighter. None of these routes operate continuously across the entire corridor. The NL has the shortest peak headway along the corridor at 15 minutes. Without signal priority or better bus infrastructure, buses sit in the same traffic as other vehicles have extended dwell times trying to merge

back into traffic. Direct service to local and regional destinations is limited along the corridor. Many additional AC Transit lines cross the corridor and BART is within close proximity of the Broadway intersection.

WALKING

Walking is most challenging in the West Oakland segment of the corridor. This segment has missing and broken sidewalk segments. Parking meters and other utilities also constrain sidewalk width in some segments. All uncontrolled crossings in West Oakland do not have actuated flashing beacons or high visibility pavement markings. The volume of pedestrians is higher in the Downtown and Adams Point segments of the corridor. Sidewalks are usually wider in these areas. Utilities and parking meters in segments of Downtown limited sidewalk width. Some sidewalks in the Adams Point area have landscaped buffers.

BICYCLING

Bicycling is challenging across the corridor. Bike lanes are not consistently present across the corridor. When present, they are not low-stress facilities and thus limit bicycling potential along the corridor to a small group of willing users. Bicycling is used throughout the corridor but is more popular in the Downtown and Adams Point segments. The corridor could provide lower-stress connections to other key bicycle facilities including Adeline Street, Telegraph Avenue, San Pablo Avenue, and Lake Merritt.

TRUCKS

Trucks primarily use the West Oakland segment of the corridor, closer to the Port of Oakland. W Grand Avenue is a designated truck route. Trucks sometimes idle and park along the corridor, increasing emissions and disrupting the quality-of-life of local residents. Mitigating the many effects of trucks is a priority for West Oakland residents.

Opportunities

There are many opportunities to enhance all modes of transportation along the Grand Avenue Corridor in order to support both local and regional goals.



Modes

Pedestrian conditions can be greatly enhanced in West Oakland by repairing and building sidewalks where necessary and by enhancing uncontrolled crossings. Building protected bike lanes or buffered bike lanes with protected intersections would improve conditions for a wider range of bicyclists. Bus transit can be improved along the corridor using strategies that decrease travel time, improve reliability, and reduce conflicts. This can facilitate both improved and additional transit service throughout the corridor; increasing access to jobs, parks, and community centers, and other destinations. Car flow currently operates fairly well across the corridor, which provides additional options for reallocating space currently reserved for cars. There are also opportunities to reduce the impacts of trucks along the corridor, consistent with other planning efforts, including restricting parking and idling and improving signal coordination to reduce engine emissions.



Placekeeping

Each of these neighborhoods has a unique history and culture. There are various design components that can help tell that story and give each area a unique sense of place while providing a relatively seamless transportation experience across the corridor. Pavement markings, public art/murals, street furniture, and signs are some potential items that the community can help craft and personalize. Community members can also help identify new pocket parks and plazas along the study area.



Recognize and Celebrate Current Residents

This project is designed to serve the existing residents of Oakland while preparing for future growth. Serving current residents means involving residents and community groups in outreach early and often and ensuring that project design considerations are developed to meet the needs of current residents. The project will also strive to recognize the lived experiences of local residents and will frame project outcomes in ways that recognize and respond to the concerns derived from that process and future community engagement.



Create a Vibrant and Safe Corridor

Grand Avenue has the potential to serve all road users in a safe and efficient way. The corridor has a long history of collisions involving people driving, biking and walking. These collisions occurred across the corridor and the volume of them is why the corridor is on Oakland's High Injury Network. Improvements to pedestrian and bicycle facilities can create a safer overall roadway by slowing vehicle speeds, improving pedestrian and bicyclist visibility, and increasing their numbers and awareness to drivers. Vibrancy can also develop from changing land uses and design standards to make fronting uses more inviting and welcoming for users of active and shared modes of travel.



Improve Access to Jobs

This project will strive to improve connectivity and accessibility along and across the Grand Avenue Corridor. Improving transit service and frequency on the corridor may make riding the bus a more attractive travel option and increase access to job opportunities. Enhanced pedestrian and bicycle facilities create additional lower-stress options to reach workplaces or connect to transit services.



Balancing Investments in Street Design with Housing

The investment of transit and active transportation infrastructure is happening as housing unaffordability continues to put pressure on Oaklanders. The City has heard some Oaklanders voice concerns that investments in bike lanes and bus lanes will contribute to displacement, gentrification, and housing unaffordability. The City has also heard that improved bicycle and pedestrian networks and more efficient and effective transit services can help reduce transportation costs as the cost of living in Oakland increases. This plan attempts to be sensitive to these concerns and promote a transparent and collaborative decision-making process.



Mandela Parkway

Gallery

NO EFF



OAKLAND, CA

Grand Avenue Mobility Plan

3 | Corridor Options



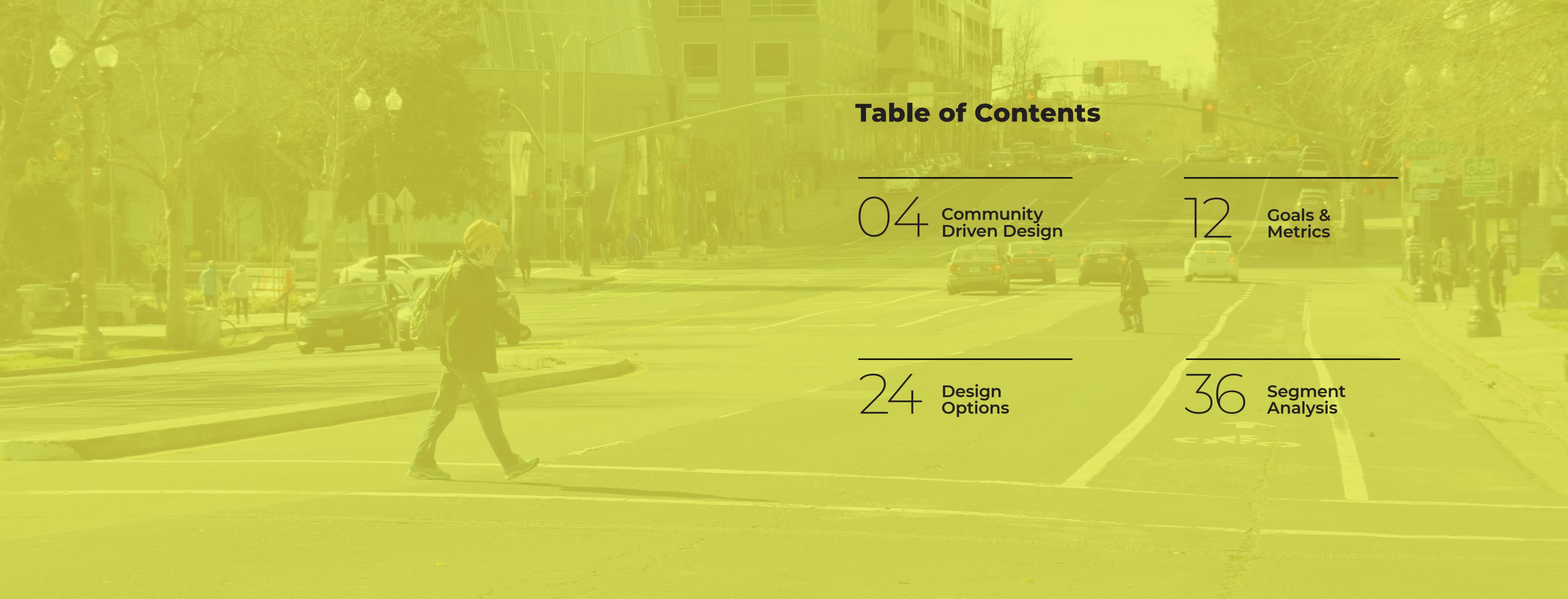


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04

Community Driven Design

Process

The team used a community-led design process to develop the corridor options for the 2.3-mile long segment of Grand Avenue. Building on the data collected and presented in the previous Existing Conditions Chapter, the project team organized the corridor into four segments, targeting engagement in each segment, with an emphasis on reaching people in West Oakland. Several design options were developed for each segment. Each design option prioritized a different travel mode or concept.

A community-led design process is critical to developing context-sensitive, holistic designs, which are ultimately more likely to be accepted. Revised concepts were presented to the public in a series of iterative, virtual open houses. Feedback from virtual open houses informed the preferred corridor alternative, which will be presented in the next Chapter.

The input of and engagement with community members--supplemented by data analysis--guided the creation of four design options to transform

this corridor into an inclusive street that satisfies the needs of people using transit, walking, bicycling, scooting, and driving. Community feedback on the various options will inform the prioritization of certain travel modes along the corridor.

The study corridor traverses four distinct areas of Oakland: West Oakland, Downtown West, Downtown East, and Adams Point. This plan seeks to balance competing needs for safety, while addressing inequities along the corridor.



Design options propose different ways to think about, accommodate, and prioritize various modes of transportation along Grand Avenue. They allow community members to react to alternatives and help guide the conversation toward a preferred alternative (Chapter 3).

Corridor Segments

The corridor changes width, context, and configurations along its 2.3 miles. In recognition of this and to facilitate engagement, the corridor was broken down into four discrete segments.

Segment 1: West Oakland

Mandela Parkway to San Pablo Avenue

- Between Prescott, McClymonds, and Ralph Bunche neighborhoods
- Truck Route
- Land use facing the corridor is primarily industrial
- Recently to be repaved with bike lanes.
- Longest segment

Segment 2: Downtown West

San Pablo Avenue to Broadway

- Between Uptown and Koreatown-Northgate (KONO) neighborhoods
- No bus service currently proposed in this segment
- Relatively narrower right-of-way

Segment 3: Downtown East

Broadway to Harrison Harrison Street

- Between Lake Merritt Office District and Valdez Triangle neighborhood
- Transit proposed to turn from Grand Avenue on to Broadway

Segment 4: Adams Point

Harrison Street to MacArthur Boulevard

- Between Adams Point neighborhood and Lake Merritt
- Open space, commercial and retail
- Active area for walking and biking

FIGURE 1: Grand Avenue Corridor Segments



Outreach Plan

The public engagement strategy for the Grand Avenue Mobility Plan proposes a robust online and outdoor engagement efforts to adapt to social distancing requirements during COVID-19. The planning effort hinges on developing partnerships with local community organizations, including the West Oakland Environmental Indicators Project, East Bay Asian Local Development Corporation, and the Black Film Guild. Outreach activities have and will continue be developed to educate the public about the plan, collect input, and obtain feedback on potential trade-offs between alternatives under consideration, develop recommendations, and implement the plan.

The engagement process for this plan was guided by three goals:

- Educate the public about project goals and timelines
- Build relationships and shared language of goals and vision
- Gather input on the diverse needs and uses of Grand Avenue

Outreach is broken into phases.

- Initial engagement gathers existing conditions and corridor priorities and goals. This feedback guides the creation of the plan's goals and the four corridor options
- Next we co-develop design alternatives and refine them based on what we hear.

Initial Engagement

ONLINE ENGAGEMENT

Phase 1 online community engagement has two components: an interactive webmap and a survey. The map allows participants to pin-point locations where they currently experience challenges traveling along the corridor and to identify where participants would like to see improvements. The survey asks respondents about their experiences traveling along the corridor and their goals, ideas, and vision for Grand Avenue.

SURVEY RESULTS

Over 1,400 people submitted survey responses and over 500 people provided comments on the interactive webmap. The West Oakland segment of the corridor was noted to have fewer pedestrian enhancements and bicycle facilities than other segments of the corridor. Many cited pedestrian infrastructure, bicycle infrastructure, traffic calming, and greening/landscaping as priorities for the corridor.

FIGURE 2: Percent of Respondents Using Each Mode Often (Multiple Times a Week)

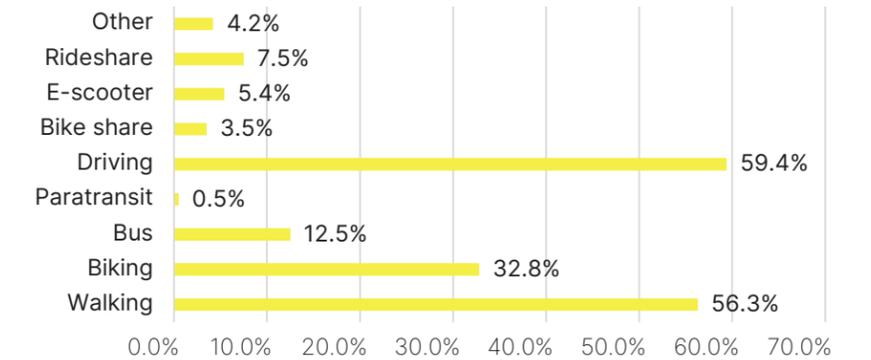


FIGURE 3: Top Ranked Priorities

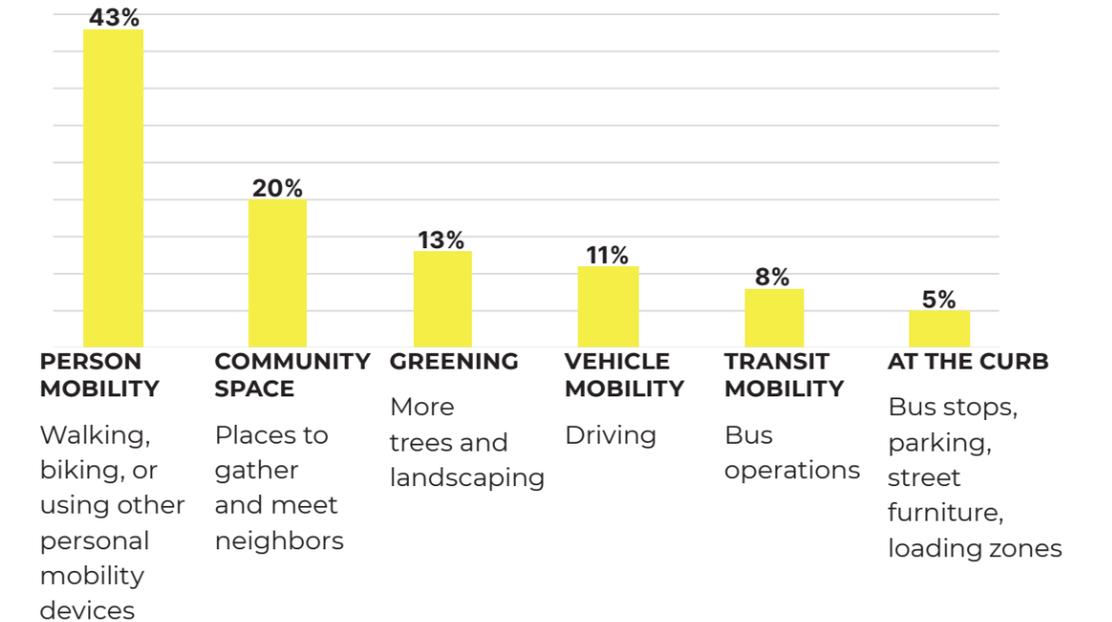
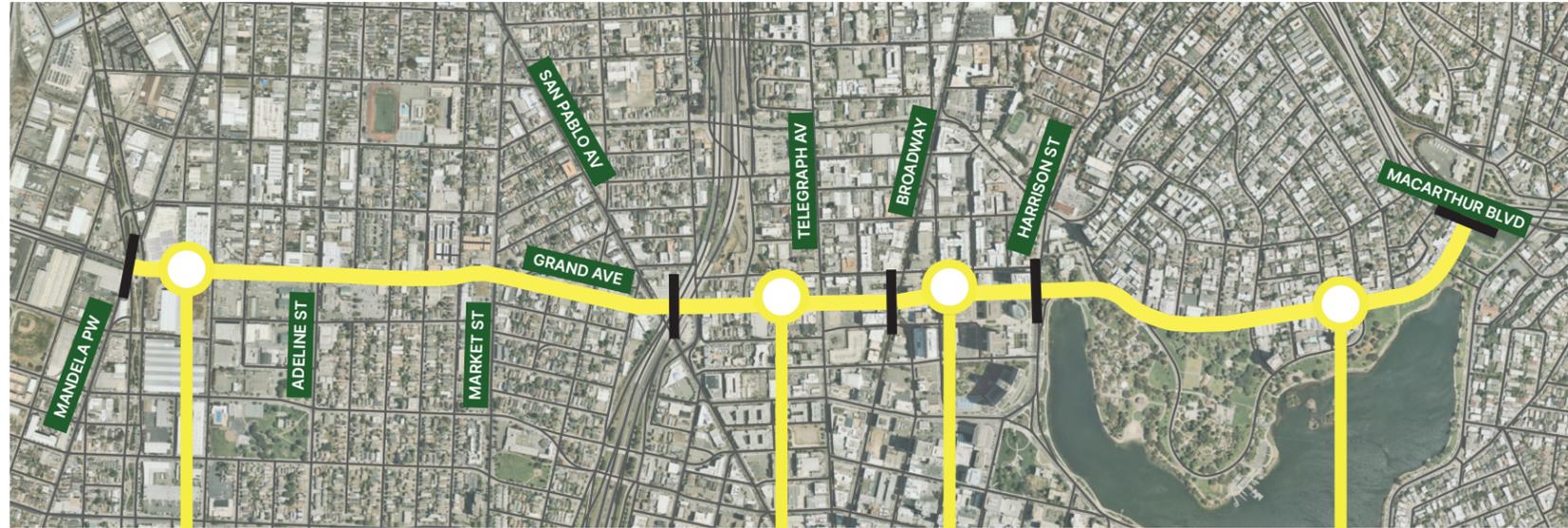


FIGURE 4: Common Feedback Themes By Segment



SEGMENT 1 FEEDBACK

- Fastest traffic
- Fewest pedestrian enhancements
- Heaviest truck volumes

SEGMENT 2 FEEDBACK

- Limited bicycle facilities
- Fast traveling cars
- Wide intersections

SEGMENT 3 FEEDBACK

- Turning vehicles/ large intersections make crossing uncomfortable

SEGMENT 4 FEEDBACK

- Traffic feeding into I-580 can be fast and aggressive
- Highest parking needs along the corridor

Respondents commonly described the existing corridor as “busy,” “fast,” “wide,” and “having lots of traffic.”



Social media advertisement generating discussions about Grand Avenue



12

Goals & Metrics

Goal-Based Evaluation Criteria

To understand the benefits, challenges, and relative strengths of the corridor design alternatives, the project team developed a process to measure alternatives against each of the project goals. The four goals are:

- Keep it Oakland
- Design for All
- Make it Green
- Feels Safe

These were developed early in the process by translating community and stakeholder priorities for the future corridor into a guiding framework for the project.

Criteria were developed based on best practices and available data to help assess how well the design options fulfill the project goals. Performance metrics were developed for each criterion to ensure consistent evaluation.



Keep It Oakland

- Implement an equitable and community driven approach
- Recognize and reflect the history and identity of the people who live and operate businesses on the corridor
- Make it a place where people want to be and



Design for All

- Create a street that works well if you walk, drive, take the bus, or bicycle



Make it Green

- Use greenery, trees, and landscaping to improve air quality, capture stormwater runoff, and increase shade and canopy cover



Feels Safe

- Increase perceived safety



WHAT DID WE HEAR?

“Make it more inviting. Murals are nice.”

“Widen the sidewalk on this side of the road.”

“Needs more green space - more trees!”

“Definitely need lighting in all of these underpass streets for the safety of everyone.”

“[Grand] could be space for local businesses to set up shop.”

“More buses please!”

“Too many service vehicles use the bike lanes as parking.”

“Cars go way too fast here.”



Existing conditions



Goal: Keep It Oakland

Reflect the local identity Of people who live and operate businesses on the corridor

PERSON MOBILITY

The top priority identified in Phase 1 engagement is improving the pedestrian experience

Metric:
Relative score based off of the quality of the pedestrian experience

Higher Performing ←————→ *Lower Performing*

Wide sidewalks, large canopy trees, separation from vehicular traffic, slower vehicle traffic

Somewhat expanded pedestrian zones

Minimal pedestrian space, numerous travel lanes, fast moving vehicles

SIGHT & SOUND

Major themes of the existing corridor include unpleasant noise and “busy” and “fast” traffic

Metric:
Relative vehicle speeds and volumes

Higher Performing ←————→ *Lower Performing*

Visually narrowing the roadway, slowing vehicles, and prioritizing local experience for walking and transit

Somewhat narrowing the roadway

Minimal traffic calming

LOCAL EXPRESSION

The corridor should allow space for spontaneous street life and allow the people of Oakland to use the corridor for gathering, displaying art, or other cultural events

Metric:
Relative score for larger gathering areas adjacent to artist areas, street vendors, or restaurant space

Higher Performing ←————→ *Lower Performing*

Large, widened pedestrian zone and parklets (parking spaces transformed into gathering space or art opportunities)

Somewhat widened sidewalks or adjacent parking

Lacks flexibility to include community events or displays



Goal: Design for All

Balance the needs of people utilizing Grand Avenue

Each proposed design concept will provide universal accessibility for all users

USER BALANCE

Balance the needs of all users, whether they are walking, biking, taking transit, or driving

Metric:
Number of modes accommodated and quality of separation

Higher Performing ←————→ Lower Performing

Five modes are accommodated

Four modes are accommodated, with high performing transit or bike

Four modes are accommodated, less high performing transit or bike

USER EXPERIENCE

Provide designated space for each user to minimize conflicts and enhance mobility

Metric:
Relative quality of the facilities for each mode

Higher Performing ←————→ Lower Performing

High separation of users with separated bikeways, separated transit lanes, wide sidewalks

Some user zones are expanded with some user separation

Least separation of users, narrow sidewalks, or mixed traffic

IMPROVED TRANSIT TIMES

Improve bus transit times so transit is competitive with other modes of travel

Qualitative Metric:
Relative score of transit operational benefits

Higher Performing ←————→ Lower Performing

Center running, transit only lanes, improved bus stations

Side running bus only lanes

Mixed-traffic lanes

PARKING PERFORMANCE

Accommodate those visiting the businesses and services in the area to mitigate the impacts of trucks in the area.

Metric:
Relative score of magnitude for parking areas retained

Higher Performing ←————→ Lower Performing

Minimal parking areas removed

Some parking areas removed

Significant parking areas removed



Goal: Make it Green

Add street trees and landscaping to create a comfortable environment and reinforce a sense of place

GREENERY & SHADE

Provide shade and canopy to visually narrow the corridor and slow traffic

Metric:
Relative score of quality planting zones and adequate space for large trees

Higher Performing ← → *Lower Performing*

Large areas for trees and plantings

A mix of tree wells and larger planting zones.

Tree wells for smaller street trees or narrow planting zones.

GREEN INFRASTRUCTURE

Manage stormwater run-off with bioretention and bioswales.

Metric:
Relative score of area to incorporate large, cohesive green infrastructure areas.

Higher Performing ← → *Lower Performing*

Wide planted zones for green infrastructure and bioretention zones.

Sizeable planted zones for green infrastructure.

Narrow planting zones incompatible with green infrastructure systems.

MITIGATE EMISSIONS

Minimize and mitigate the emission impacts of idle traffic and trucks and improve air quality by encouraging alternative modes of transportation.

Metric:
Relative score of low-emission transportation options and potential to minimize idling motorists.

Higher Performing ← → *Lower Performing*

Combination of multiple modes of alternative transportation and planting.

Somewhat widened green areas with a few alternative modes of transportation.

Emphasis on motorists and lack green areas.



Goal: Feels Safe

Improve perceived safety to help foster a comfortable space for all ages and abilities.

DEGREE OF SEPARATION

Separate people biking from faster moving traffic

Metric:
Relative score of modal separation and perceived level of comfort for bicyclists

Higher Performing ←————→ Lower Performing

Bicycle facility physically separated from pedestrians and motors

Bike lanes with designated zones for bicyclist

No separate bike facilities

PEDESTRIAN LIGHTING

Provide human-scale lighting, increasing perceived safety and usability at night

Metric:
Relative score for amenity or planting zones that can incorporate pedestrian lighting

Higher Performing ←————→ Lower Performing

Wide amenity/ planting zone.

Sizeable amenity/ planting zone.

Narrow amenity/ planting zone.

IMPROVE CONNECTIONS

Promote connections not just along Grand, but improve connections crossing Grand as well.

Metric:
Relative score for ease of connecting existing facilities and shorter crossings.

Higher Performing ←————→ Lower Performing

Typical side-running facilities, pedestrians crossing few lanes of traffic.

Somewhat unique conditions, crossings over some lanes of traffic.

Complicated configurations or large crossings.



24

Design Options

Design Options

Accommodating space for people walking, biking, taking transit, driving, and parking along Grand Avenue can be challenging.

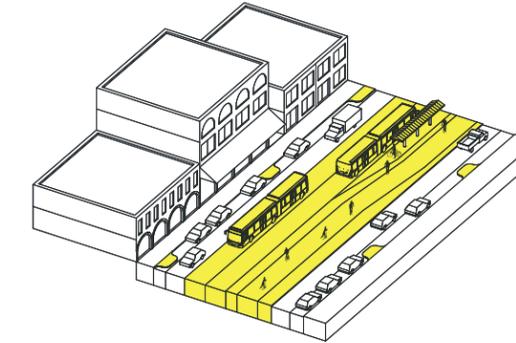
In effort to develop a vision - and determine which components are the highest priority for the communities along Grand Avenue - four alternative corridor options are proposed. They are named by their unique features:

- Activated Median
- Transit Edge
- Bicycle/Micromobility Focus
- Vehicular Throughput

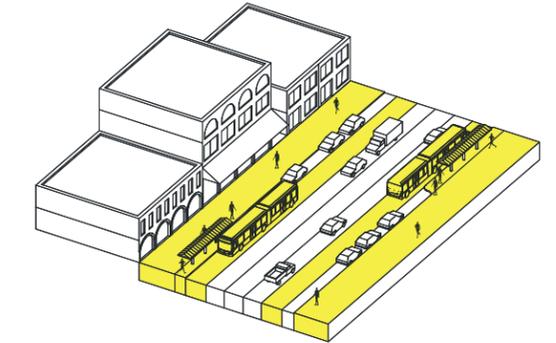
These design options offer a range of configurations for each mode of travel. The four concepts are evaluated using the goal criteria to determine where these concepts excel or fall short.

These alternatives are intended to start a conversation with community members about trade-offs, what type of facilities are most important, and what they would like to see in Grand Avenue.

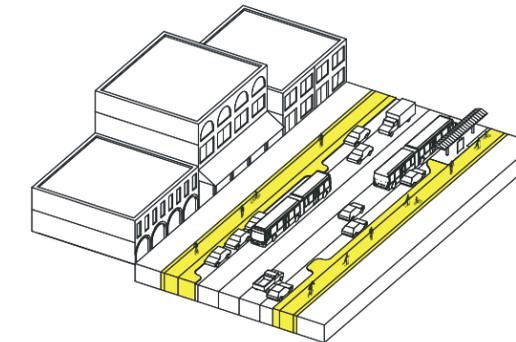
Activated Median



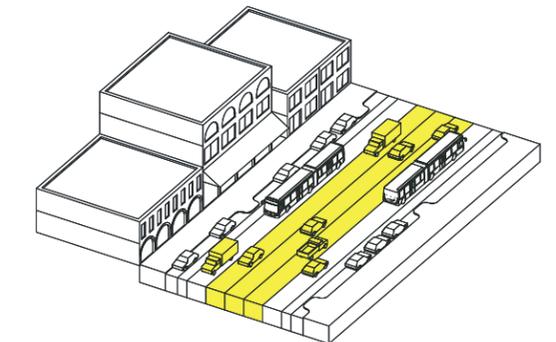
Transit Edge

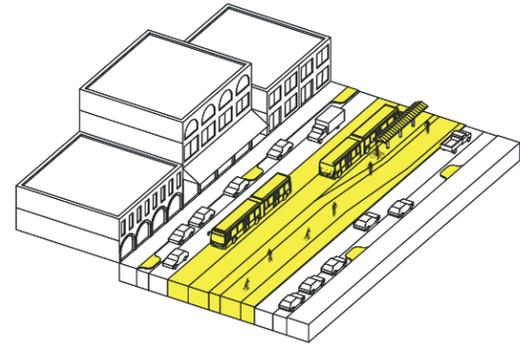


Bicycle/Micromobility Focus



Vehicular Throughput





Activated Median

This concept puts emphasis on the center of Grand, focusing on improved circulation for transit and bicyclists.

This concept excels at meeting “Design for All” criteria with separated facilities for pedestrians, transit users, and bicyclists.

HOW WELL DOES THIS OPTION REFLECT EACH DESIGN GOAL?

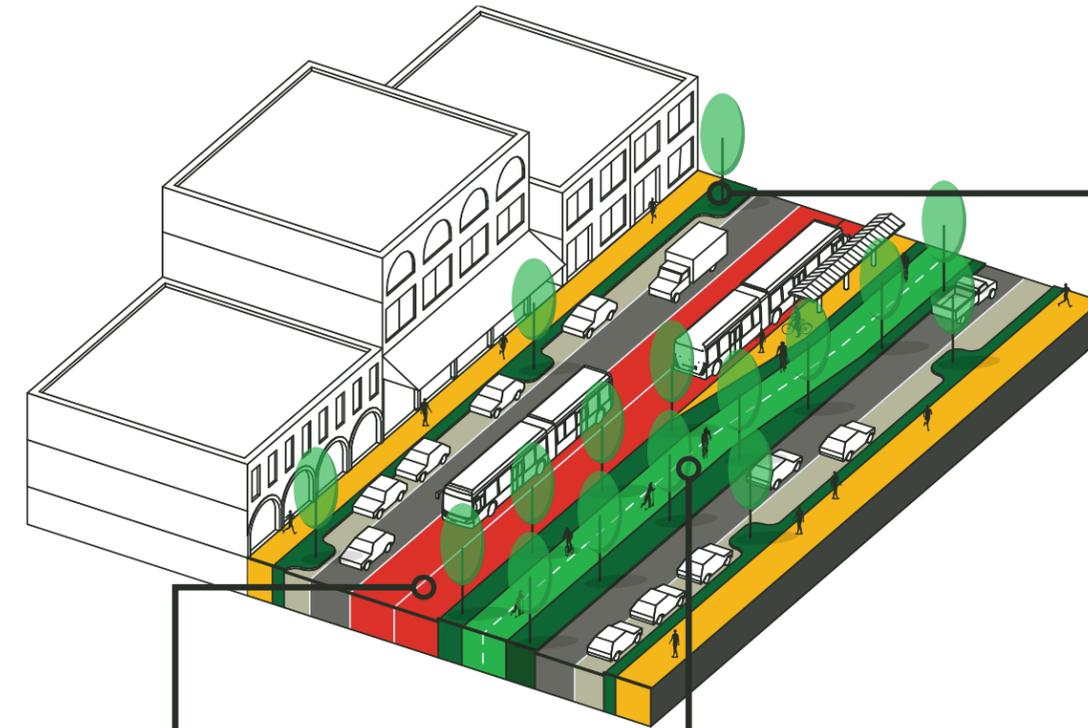


DESIGN FEATURES AND TRADE-OFFS:

Defining features for this concept include:

- Efficient transit service with dedicated bus lanes in the median
- Comfortable, center-running bike facilities, although potentially less easy to access
- Large planting areas and trees line the median and planting areas separate pedestrians from the roadway
- Widened sidewalk
- Potential for vehicle congestion
- Potential to compromise emergency vehicle operations
- Unfamiliar design configuration

FIGURE 5: Activated Median Design Option

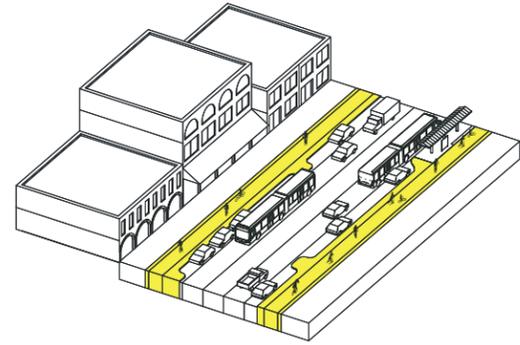


CENTER RUNNING DEDICATE BUS LANES
provides the most efficient transit times.

RAISED TWO-WAY BICYCLE FACILITY
with large planting areas and trees separates bicyclists from traffic

PLANTING ZONES WITH CANOPY TREES
visually narrow the road to slow motorists and increase user comfort.

INTERSECTION APPROACH:
Prioritize and reduce parking, planting areas, or pedestrian zones at intersections with turn pockets and bus stations.



HOW WELL DOES THIS OPTION REFLECT EACH DESIGN GOAL?

Keep It Oakland		<div style="width: 100%; height: 10px; background-color: #FFD700;"></div>
Design for All		<div style="width: 80%; height: 10px; background-color: #FFD700;"></div>
Make it Green		<div style="width: 100%; height: 10px; background-color: #FFD700;"></div>
Feels Safe		<div style="width: 85%; height: 10px; background-color: #FFD700;"></div>

Biking/Micromobility Focus

This concept places emphasis on a high quality bicycle facility and large planting zones.

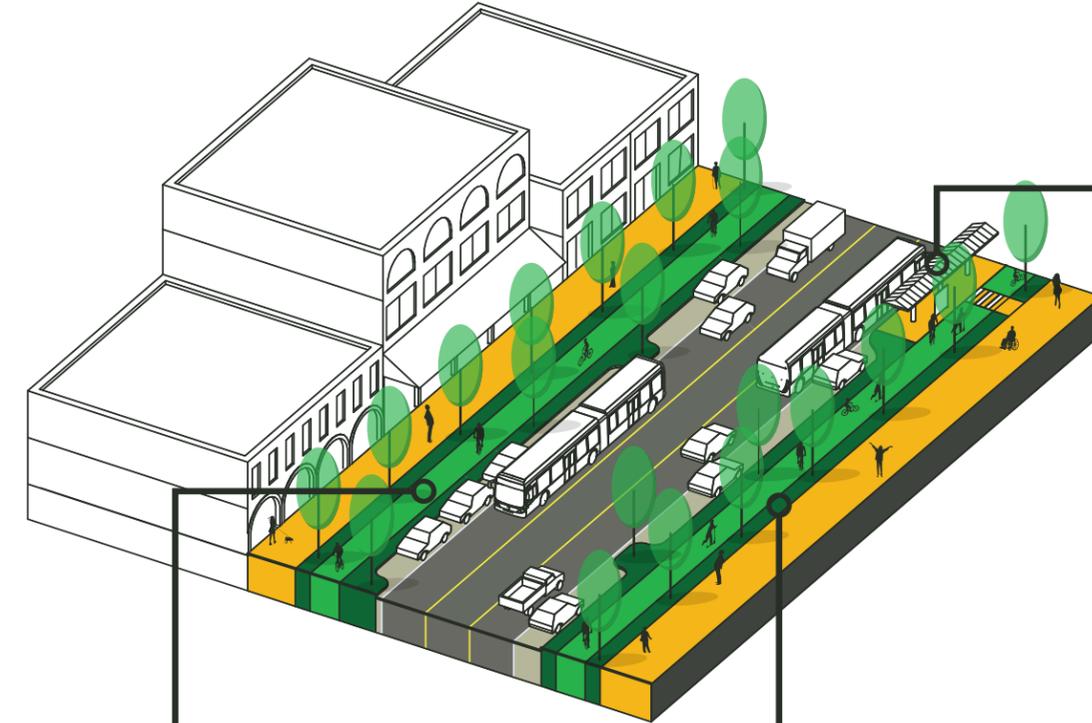
This concept excels at meeting “Make it Green” criteria with a continuous canopy and large planting zones adjacent to the pedestrian and bicyclist zones.

DESIGN FEATURES AND TRADE-OFFS:

Defining features for this concept include:

- Comfortable, side-running biking facilities placed at sidewalk level, separated from traffic and pedestrians
- Wide pedestrian zone for walking, seating, and gathering
- Large planting areas and areas for street trees on either side of the bike lanes and on both sides of the street
- Slower transit times with shared transit/traffic lanes
- More intuitive street operation

FIGURE 6: Biking/Micromobility Focus Design Option

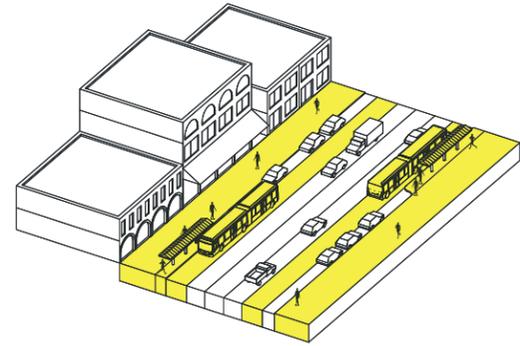


IN-LANE BUS STOPS reduce transit delays by allowing transit to continue in a straight line and eliminate pull-out and merging delays.

RAISED ONE-WAY CYCLE TRACKS protect bicyclists and improve perceived comfort and safety.

LARGE PLANTING AREAS WITH CANOPY TREES visually narrow the street to slow traffic, create safer walking environments, collect stormwater, and reduce harm from emissions.

INTERSECTION APPROACH:
Coordinate right-turning vehicles with bus and bike through-traffic. Protected intersections. Removal of parking at the intersections.



Transit Edge

This concept puts emphasis on the edges of the roadway with side-running bus-only lanes and large sidewalks.

This concept excels at meeting “Keep it Oakland” criteria with an expansive pedestrian experience, transit lanes, and space to hold community activities. However, the lack of bicycle-only facilities and large crossings are on the lower performing metrics for the “Design for All” goal.

HOW WELL DOES THIS OPTION REFLECT EACH DESIGN GOAL?

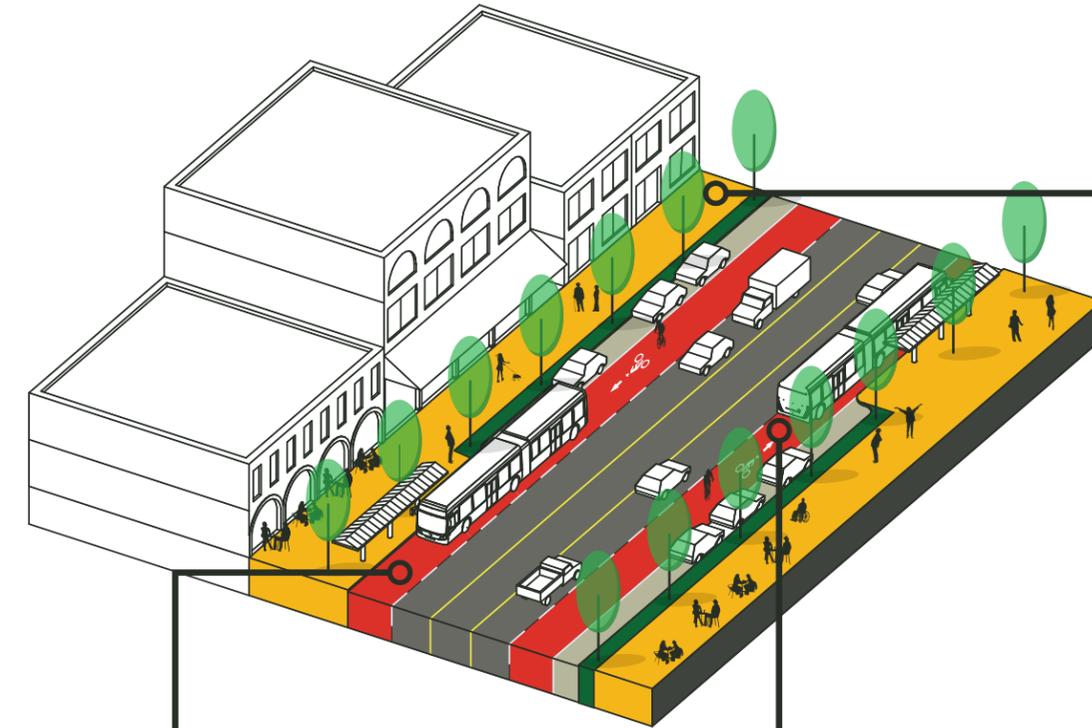
Keep It Oakland		
Design for All		
Make it Green		
Feels Safe		

DESIGN FEATURES AND TRADE-OFFS:

Defining features for this concept include:

- Efficient transit service with side running dedicated bus lanes
- Improved pedestrian zone for walking, seating, and gathering
- Shared bus-bike lane is not as comfortable or as safe for bicyclists or transit operators
- Planting zones and trees separate pedestrians from vehicle traffic on edges of the corridor
- The wider street, with five travel lanes may pose more challenging for pedestrians to cross than other options

FIGURE 7: Transit Edge Design Option

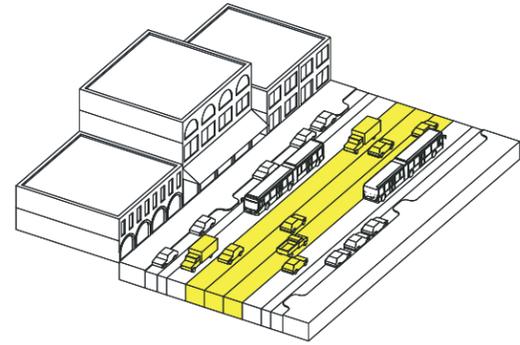


SIDE RUNNING BUS LANES
reduce transit delays and overall improve quality of transit service.

SHARED BUS/BIKE LANES
can accommodate both user groups where there are low speeds but may also pose safety and transit operational concerns.

WIDENED PEDESTRIAN ZONE
is more than just a space for people walking - but is a flexible space for outdoor dining, community gathering, bus stops, and seating.

INTERSECTION APPROACH:
Allow for right turning movements in the bus only lanes.



Vehicular Throughput

In this concept, all modes are considered, with an emphasis on maintaining vehicle lanes.

This concept does not necessarily excel at any one goal. Though all modes are accommodated in this design alternative, the quality of each facility places the design on the lower-performing end for most of the evaluation criteria.

HOW WELL DOES THIS OPTION REFLECT EACH DESIGN GOAL?

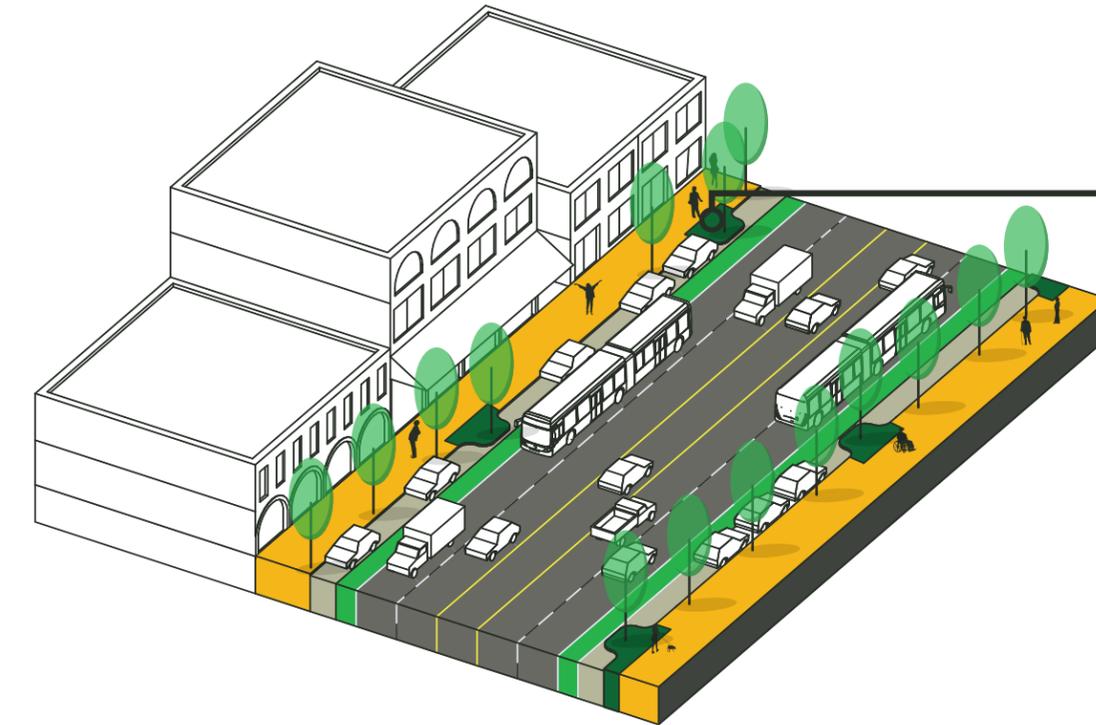
Keep It	
Design for All	
Make it Green	
Feels Safe	

DESIGN FEATURES AND TRADE-OFFS:

Defining features for this concept include:

- Minimal vehicular traffic congestion or traffic-calming features
- People biking, motorists and transit share space.
- Facilities are less robust: sidewalks do not have large amenity zones, bikeways do not have buffers or physical separation, and motorists and transit are mixed
- Trees and bulb-outs separate pedestrians from traffic on edges of the corridor

FIGURE 8: Vehicular Throughput Design Option



BULB-OUTS

visually narrow the roadway to slow motorists and break up parking areas

INTERSECTION APPROACH:

Prioritize turning pockets, bus stops, parking, loading zones, or bicycle movements at intersections.

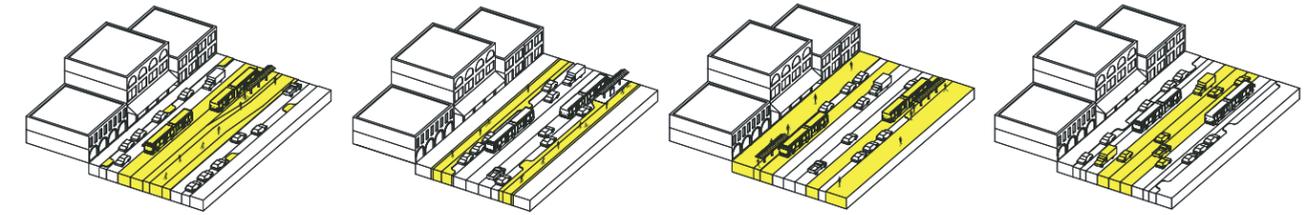
Evaluation

Each concept was developed to prioritize a different mix of users. Trade-offs between the concepts illustrate how each concept excels or under-performs toward the project goals. Feedback from Phase 1 (Listen) and Phase 2 (Collaborate) of Engagement informed the evaluation.

In the table that follows, the four design options are scored, using the following relative scores:

High

 Medium
 Low



ACTIVATED MEDIAN **BICYCLE/MICROMOBILITY FOCUS** **TRANSIT EDGE** **VEHICULAR THROUGHPUT**

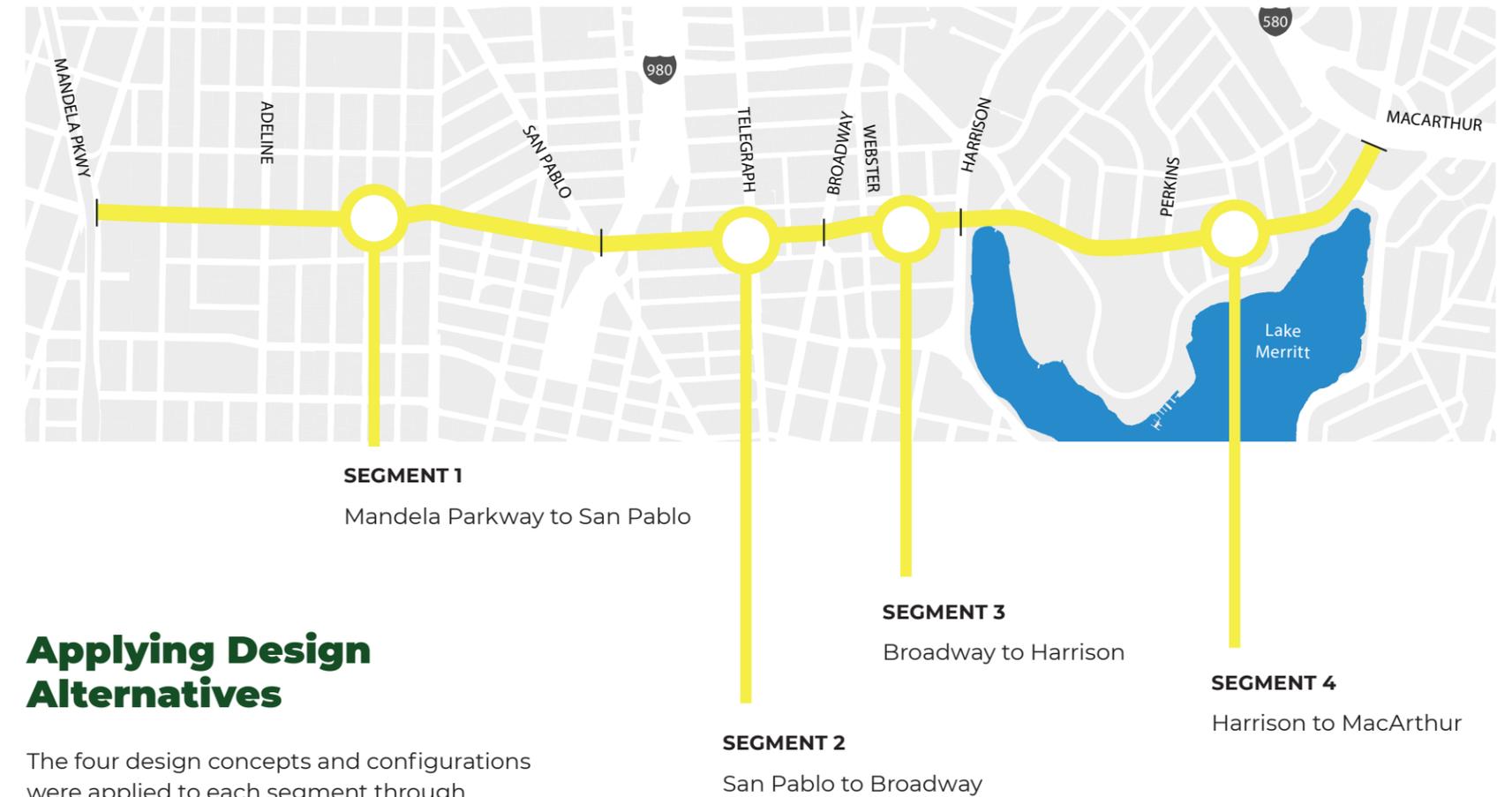
	ACTIVATED MEDIAN	BICYCLE/MICROMOBILITY FOCUS	TRANSIT EDGE	VEHICULAR THROUGHPUT
Keep It Oakland				
Person Mobility	●	●	●	●
Site & Sound	●	●	●	○
Local Expression	○	●	●	○
Design for All				
User Balance	●	●	○	○
User Experience	●	●	○	●
Improved Transit	●	●	●	○
Parking Performance	●	●	●	●
Make it Green				
Greenery & Shade	●	●	●	●
Green Infrastructure	●	●	●	○
Mitigate Emissions	●	●	●	○
Feels Safe				
Degree of Separation	●	●	○	●
Pedestrian Lighting	●	●	●	○
Improve Connections	○	●	●	○



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Segment Analysis

FIGURE 9: Grand Avenue Corridor Segments



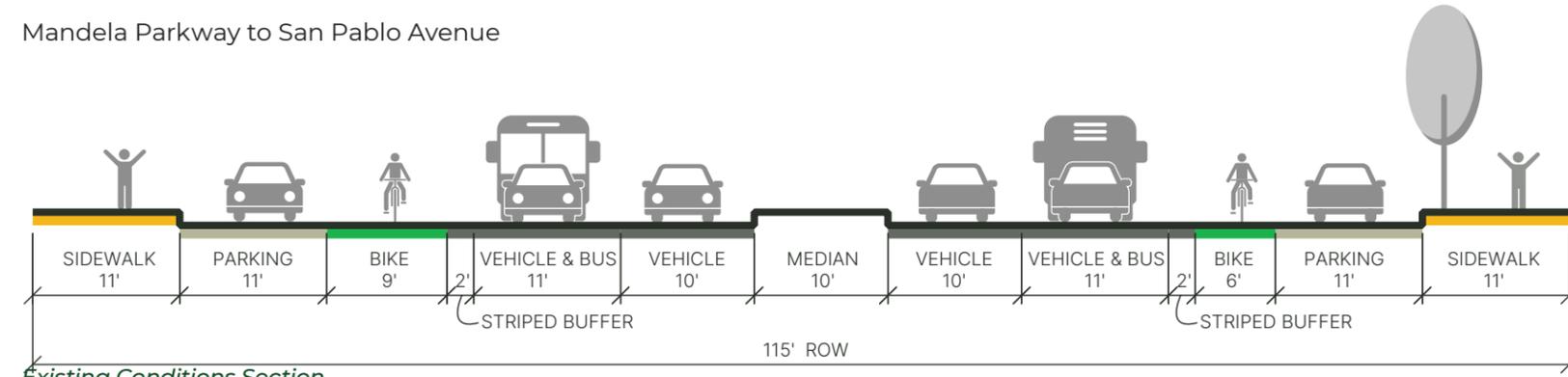
Applying Design Alternatives

The four design concepts and configurations were applied to each segment through a series of cross sections.

These cross sections visualize the trade-offs and balance of all the modes for each design concept across the corridor.

Segment 1: West Oakland

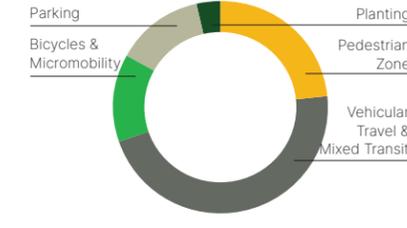
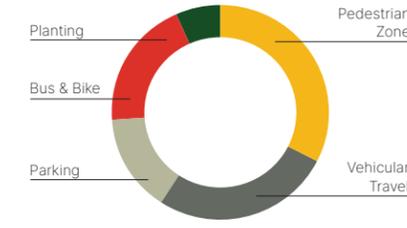
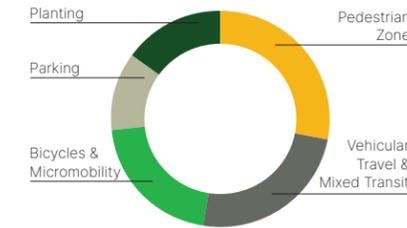
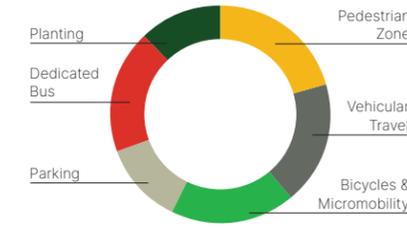
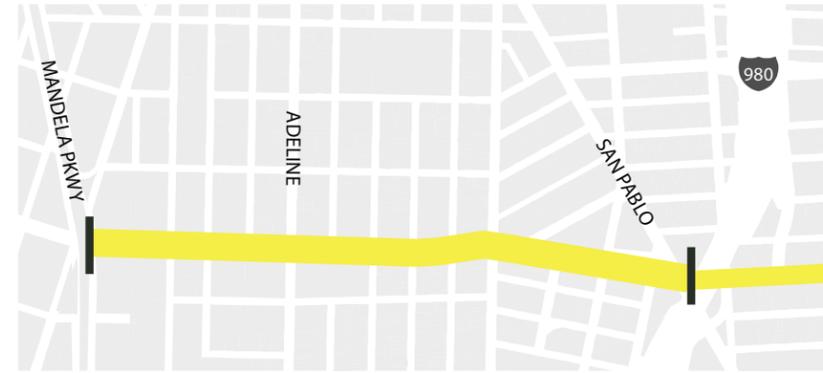
Mandela Parkway to San Pablo Avenue



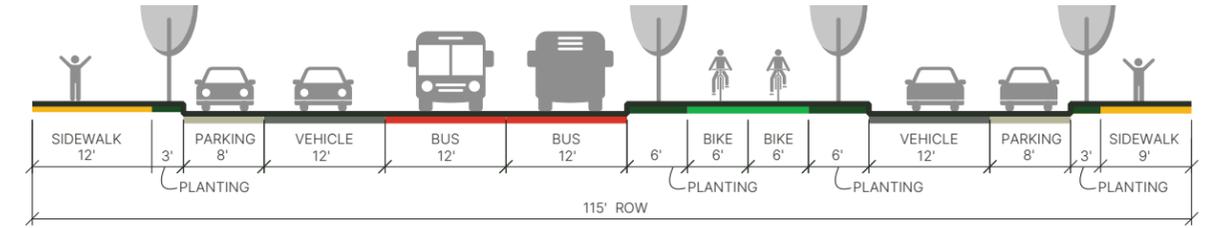
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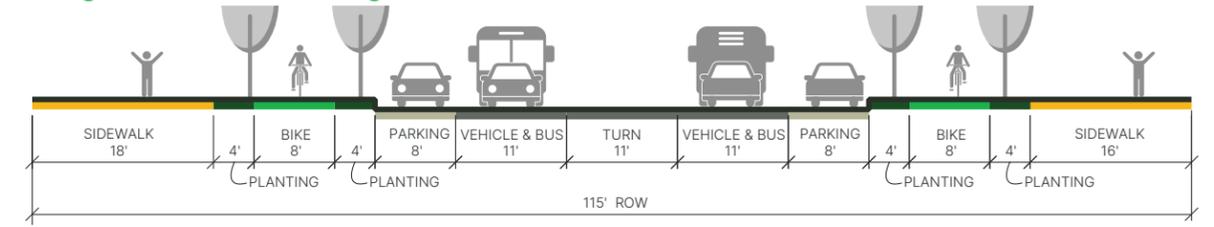
Existing Conditions



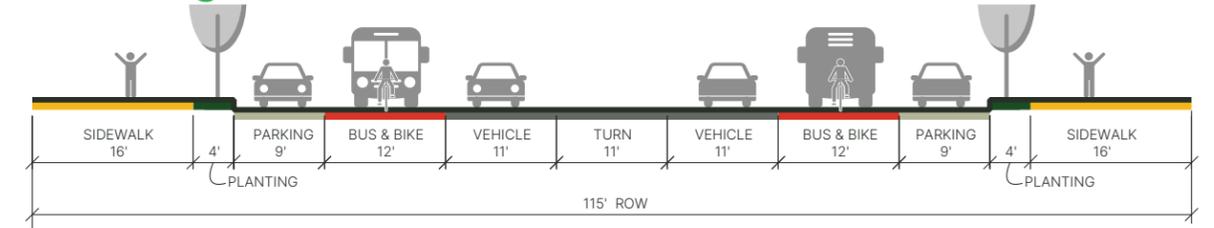
Activated Median



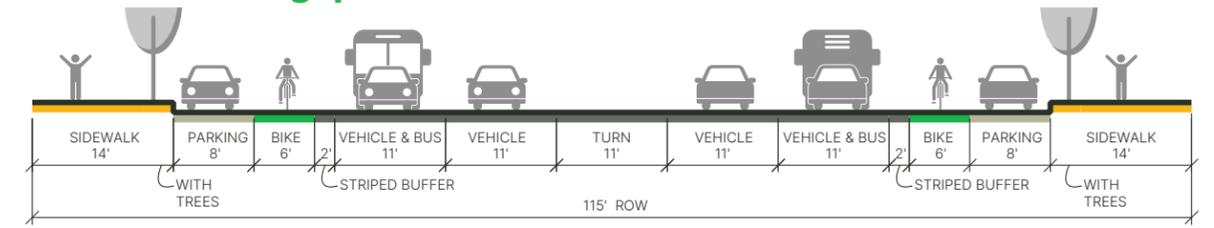
Bicycle/Micromobility Focus



Transit Edge

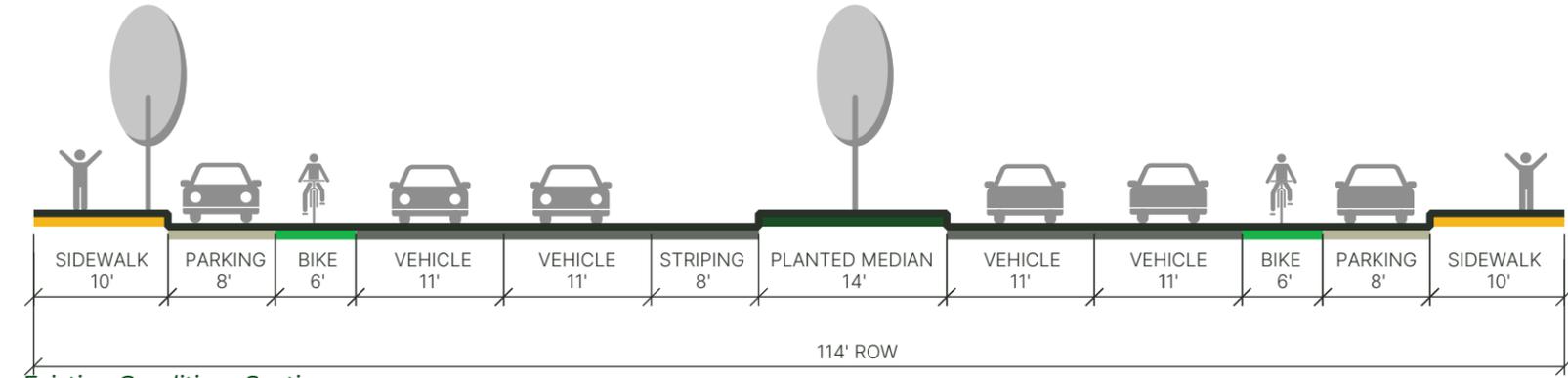


Vehicular Throughput



Segment 2: Downtown West

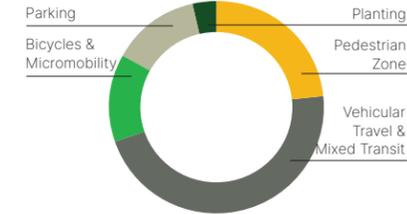
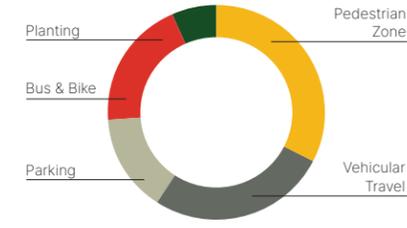
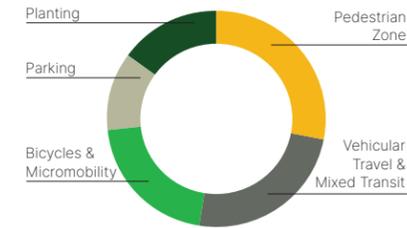
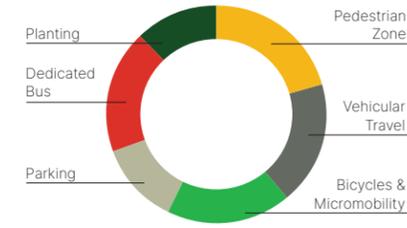
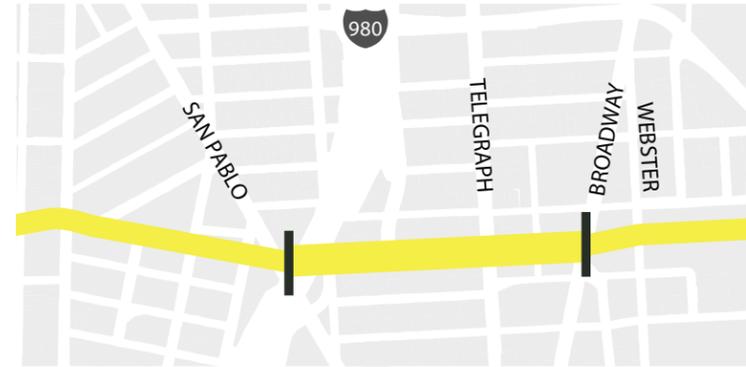
San Pablo Avenue to Broadway



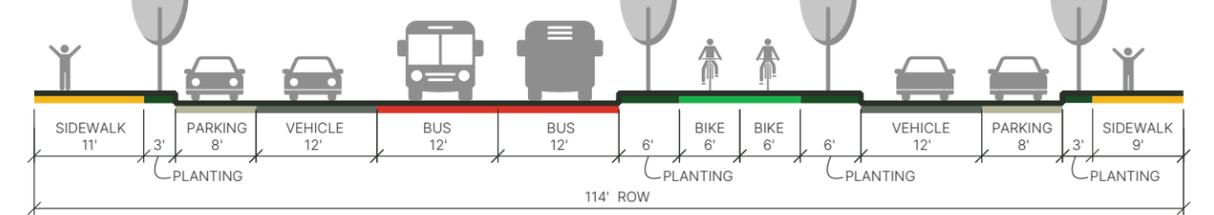
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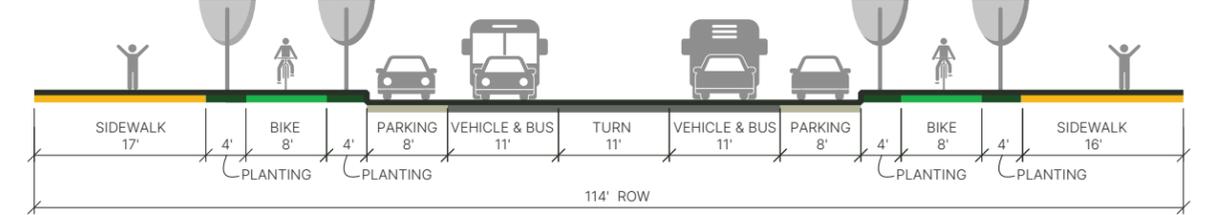
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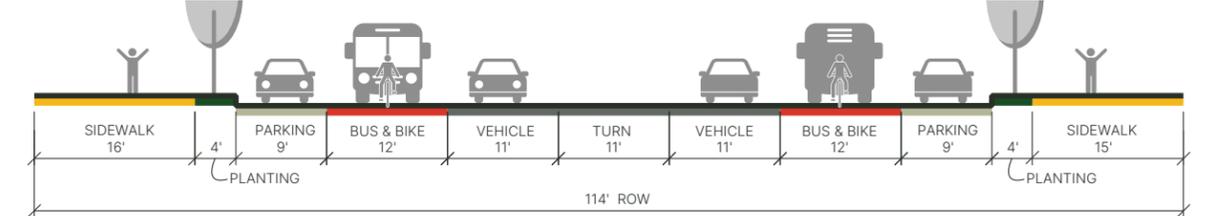
Activated Median



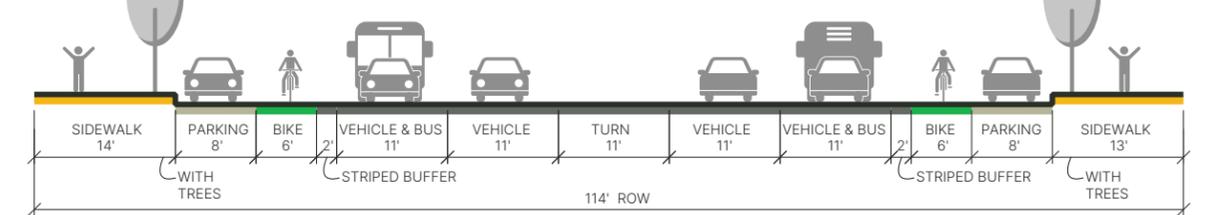
Bicycle/Micromobility Focus



Transit Edge

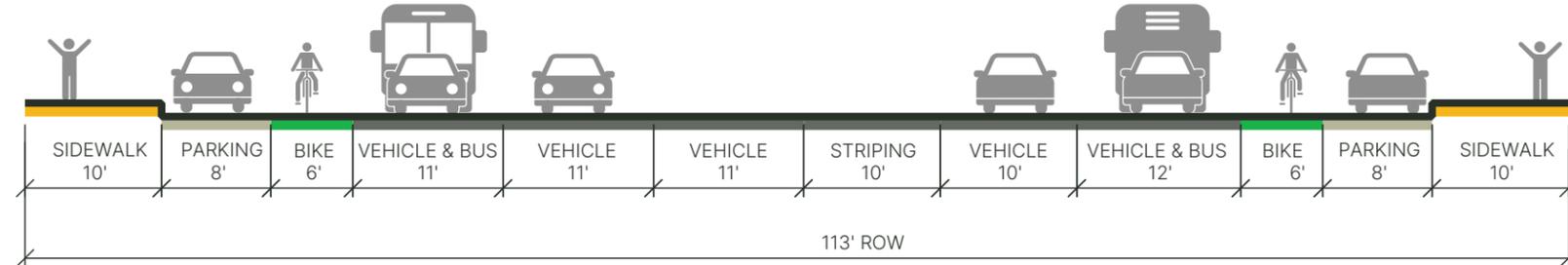


Vehicular Throughput



Segment 3: Downtown East

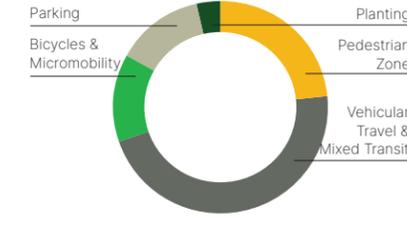
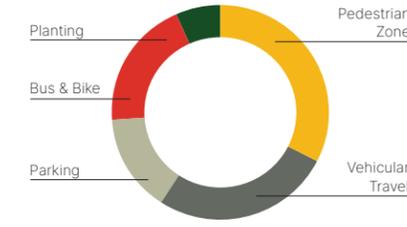
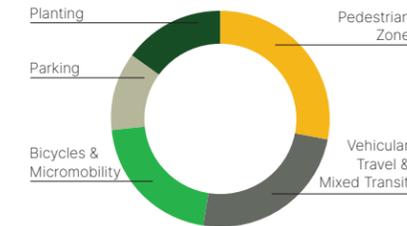
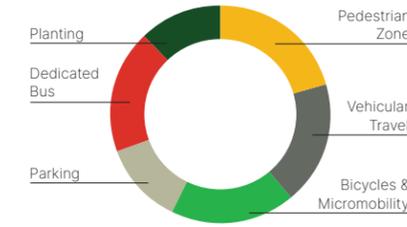
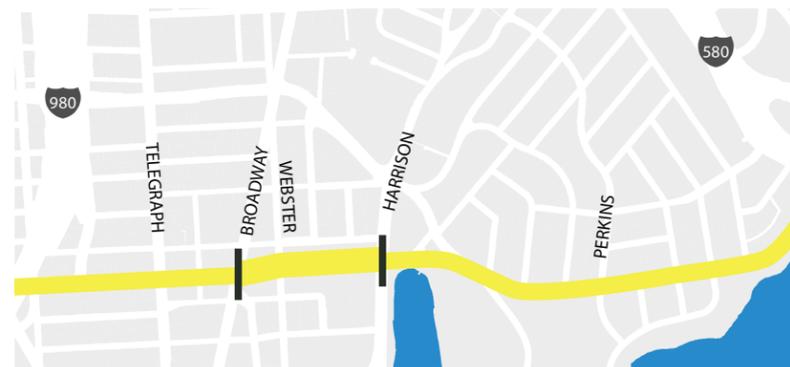
Broadway to Harrison Street



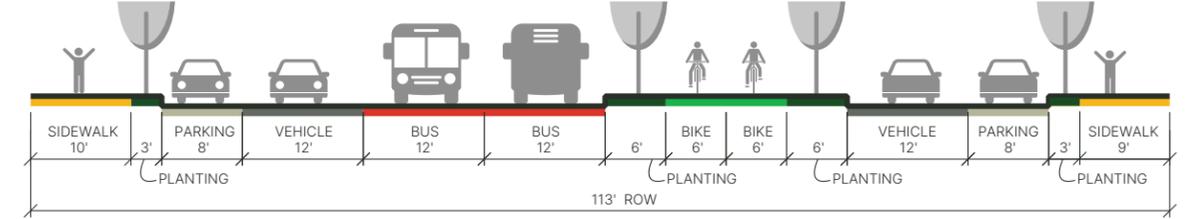
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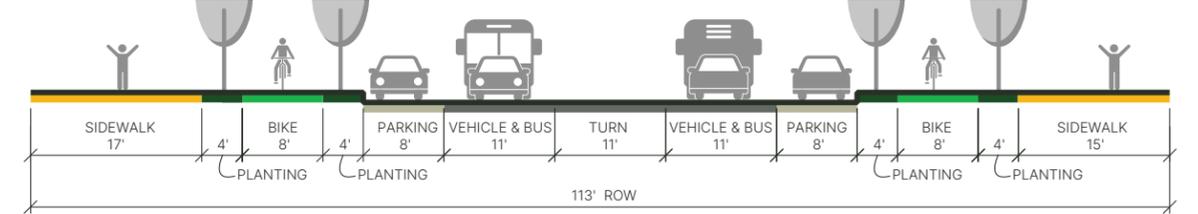
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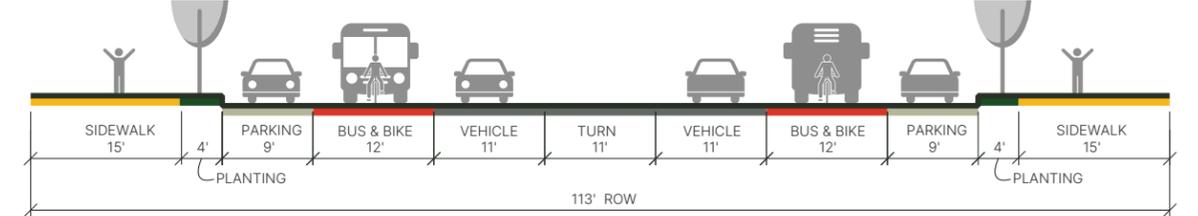
Activated Median



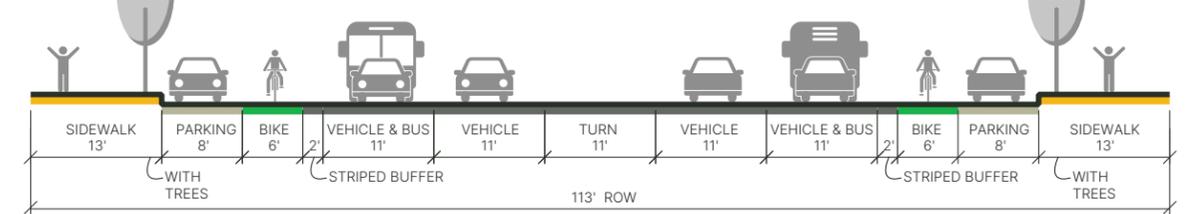
Bicycle/Micromobility Focus



Transit Edge

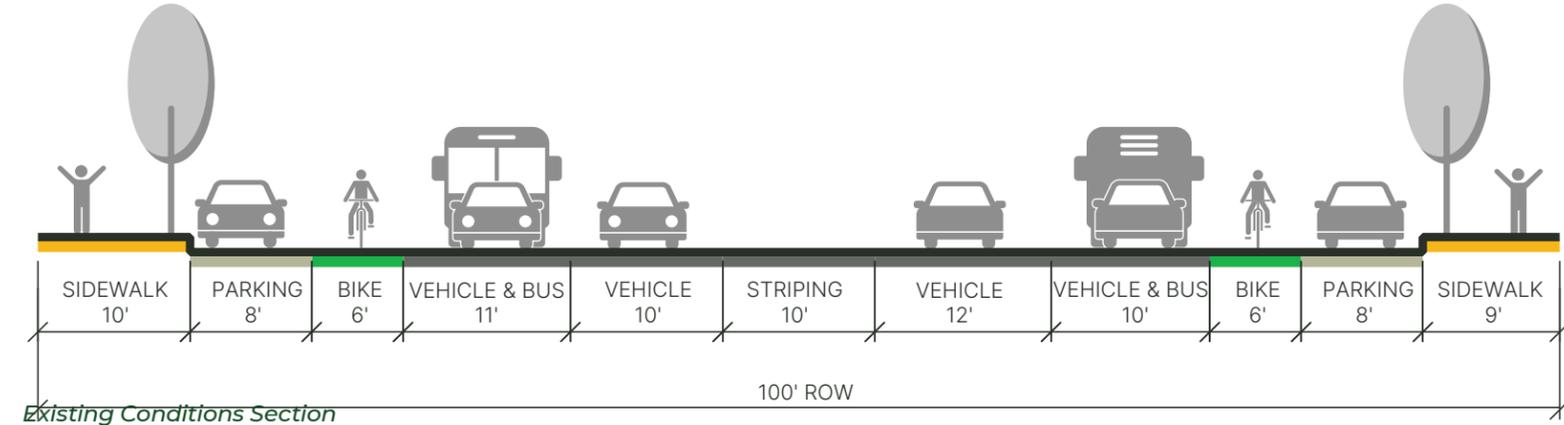


Vehicular Throughput

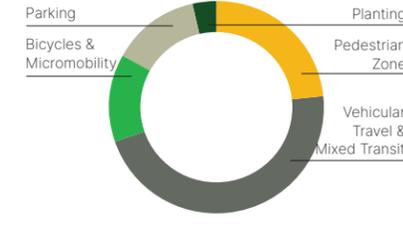
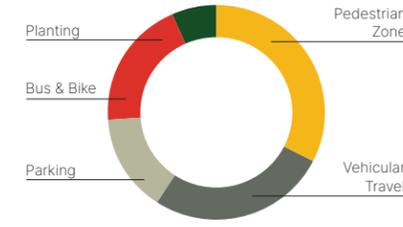
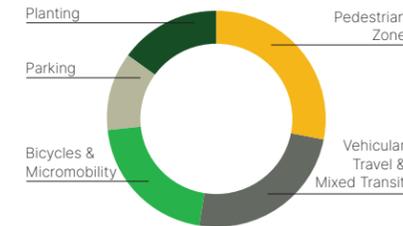
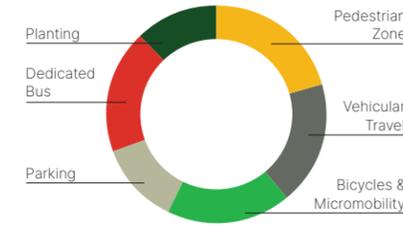
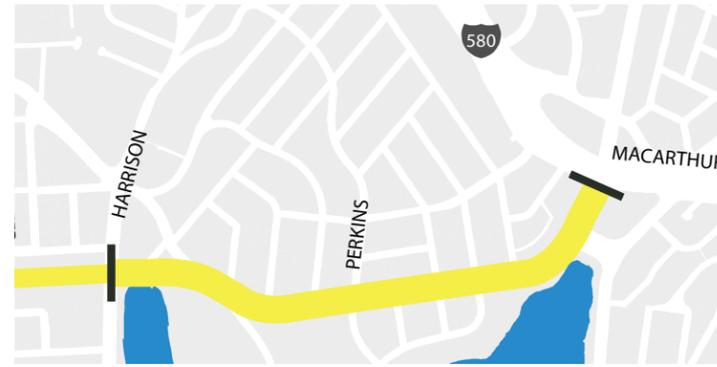


Segment 4: Adams Point

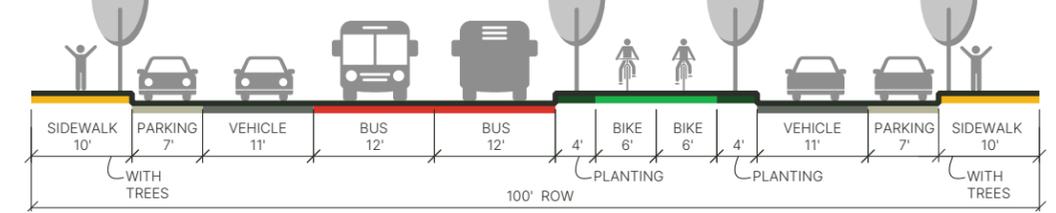
Harrison to MacArthur



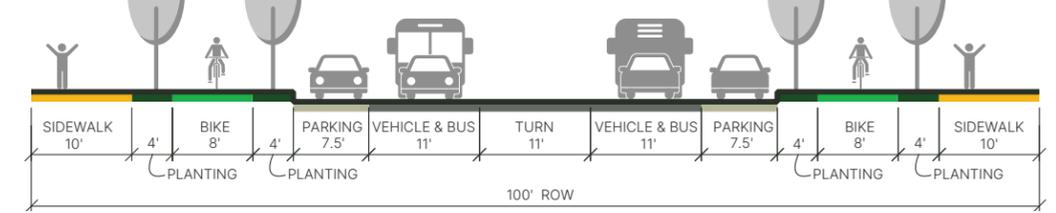
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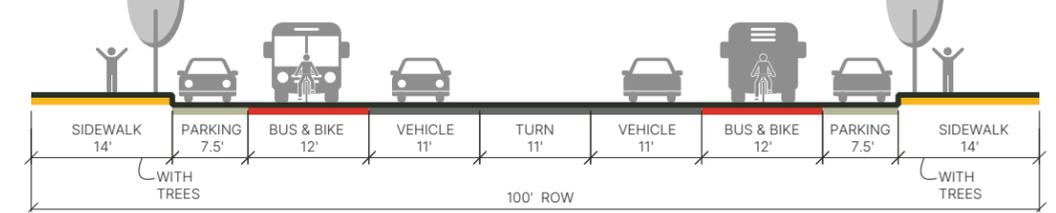
Activated Median



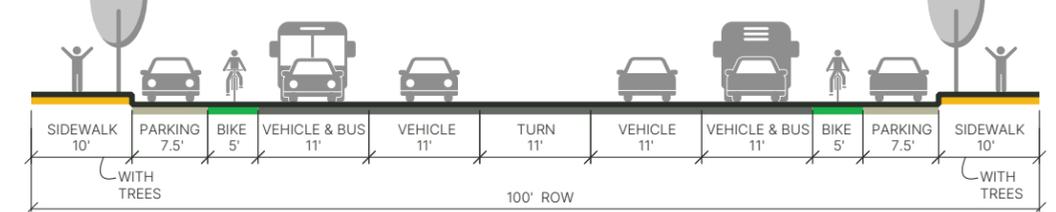
Bicycle/Micromobility Focus



Transit Edge



Vehicular Throughput



Outreach

Collaborate and Refine

As discussed at the start of this chapter, the outreach and design process is iterative. We ask community members for feedback on the project goals and how well the design options reflect these goals for each of the four segments: West Oakland, West Downtown, East Downtown, and Adams Point. This feedback helps to better understand specific community priorities and to refine design options to meet these priorities.

Online engagement again proved effective at reaching some segments of the Grand Avenue community. The virtual open house drew another 440 participants. Participants ranked “Feels Safe” as the most important corridor goal. Virtual open house participants, regardless of neighborhood, expressed the most favorable responses to the Bicycle/Micromobility Focus (77%) and Activated Median (72%) options.

- In **West Oakland**, virtual open house respondents were evenly split between preferring the Bike/Micromobility design option (34%) and the Activated

Median design option (34%).

- In **Downtown West**, 51% of respondents favored the Bike/Micromobility option.
- In **Downtown East**, 46% preferred the Bike/Micromobility design option, and 34% preferred the Activated Median design option.
- In **Adams Point**, 48% preferred the Bike/Micromobility design option, and 37% preferred the Activated Median design option.

This relative consensus masks real differences in participation across the four segments. Over 75% of virtual open house participants identified with either Downtown or Adams Point.



Chalkboards along Grand Avenue at Adeline Street soliciting feedback

West Oakland stakeholders were underrepresented in the online survey, compared to the share of the corridor in West Oakland.

To drive attendance to the virtual option houses, particularly in West Oakland, the East Bay Asian Local Development Corporation (EBALDC) posted giant chalk boards at three locations in West Oakland. The project team also pasted sidewalk decals along the corridor soliciting feedback from people walking along Grand Avenue. The project team advertised on social media and sent postcards.

Through the “Be Heard” campaign, the Black Film Guild conducted local outreach along the Grand Avenue corridor, commissioning youth artists to explore and showcase their stories and experiences around transportation and Grand Avenue. The Black Film Guild provided resources in the form of materials, studio space, and project mentorship. The youth artists used storytelling to expand participation in the planning process.

To further reach West Oaklanders and other community members who may be less likely to participate in an ambitious, virtual, long-range planning process, West Oakland-based community organizations led targeted engagement. The West Oakland Environmental Indicators Project hosted a series of focus groups for West Oaklanders.

- **West Oakland Seniors** emphasized the importance of designing accessible streets, intersections, and traffic signals for all people. Corridor designs should intuitively delineate space and reinforce the

need to be mindful and courteous of one another as we travel. Seniors also expressed concerns about the center-running bus lanes.

- **West Oakland Transit Riders** priorities included local transit service, accessibility, safety, along with lighting, benches, and shelters--not just in Adam’s Point. While dedicated space for buses is important, some had concerns about the safety of accessing center-running bus lanes.
- **West Oakland People with Disabilities** focus group supported safety, better landscaping, dedicated space for people with adaptive bicycles and tricycles, and easy access to parking. Members noted that traveling eastbound on West Grand Avenue sets the tone psychologically and emotionally for people entering Oakland.
- At two **combined focus groups** in June, beautification was also paramount, along with ensuring design options make space to acknowledge the cultural significance of West Oakland in the arts.

Both the virtual open houses and targeted West Oakland engagement helped the project team build relationships, refine priorities, and develop design options consistent with these priorities.



Sidewalk decals driving virtual open house attendance

BE HEARD

Grand Ave





OAKLAND, CA

Grand Avenue Mobility Plan

4 | Recommendations



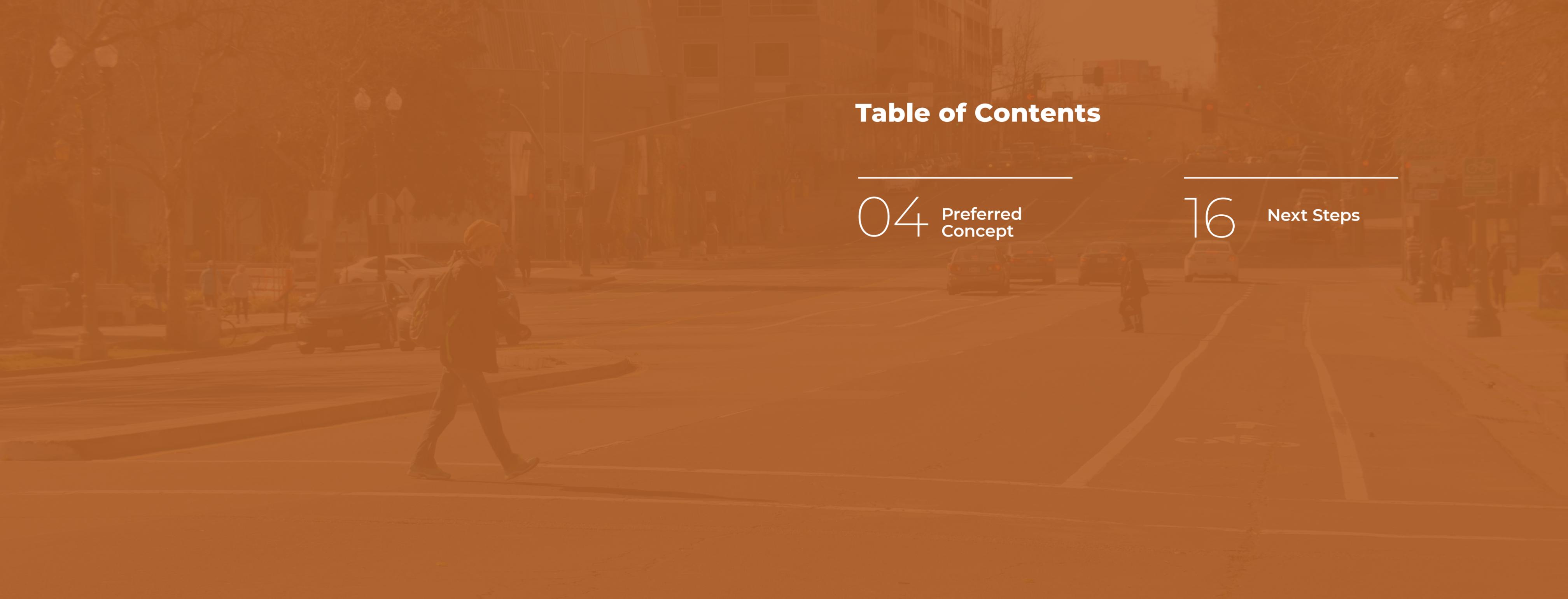


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04 Preferred
Concept

16 Next Steps



04

Preferred Concept

Goals and context

None of the four concepts introduced and reviewed in Chapter 3 are perfect. Each involves trade-offs. And no one concept can be applied universally along the corridor.

The preferred concept attempts to apply what we learned by listening to community members and stakeholders to develop goals; collaborating on design development and evaluation; and refining design options. By working with community members, we can hope to equitably distribute the benefits and minimize the burdens of transportation investments along Grand Avenue. The preferred concepts presented in this Chapter require additional design and outreach if they are to meet the plan's goals to:



Keep it Oakland

Reflect the local identity(ies) of people who live and operate businesses along the corridor.



Design for All

Balance the needs of people using Grand Ave and provide universal accessibility for all.



Make it Green

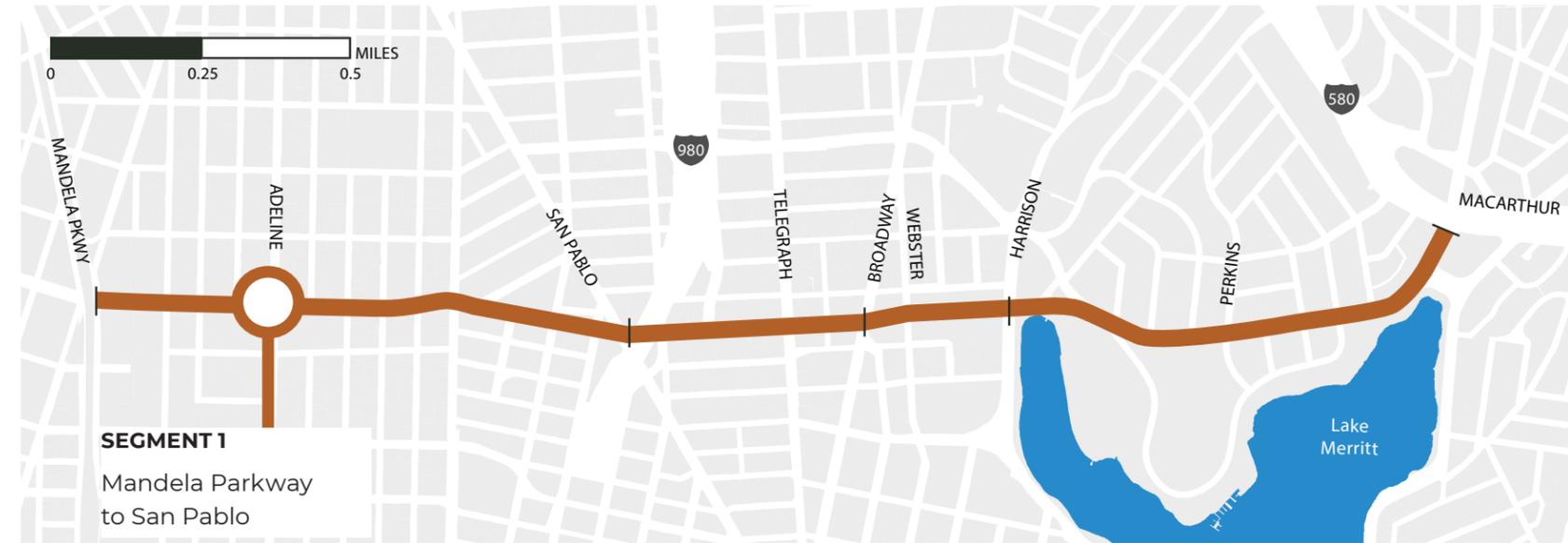
Add street trees and landscaping to create a healthier environment and reinforce a sense of place.



Feels Safe

Improve safety to help foster a place for people of all ages and abilities to flourish.

FIGURE 1: Grand Avenue: Mandela Parkway to San Pablo Avenue



SEGMENT 1
Mandela Parkway to San Pablo

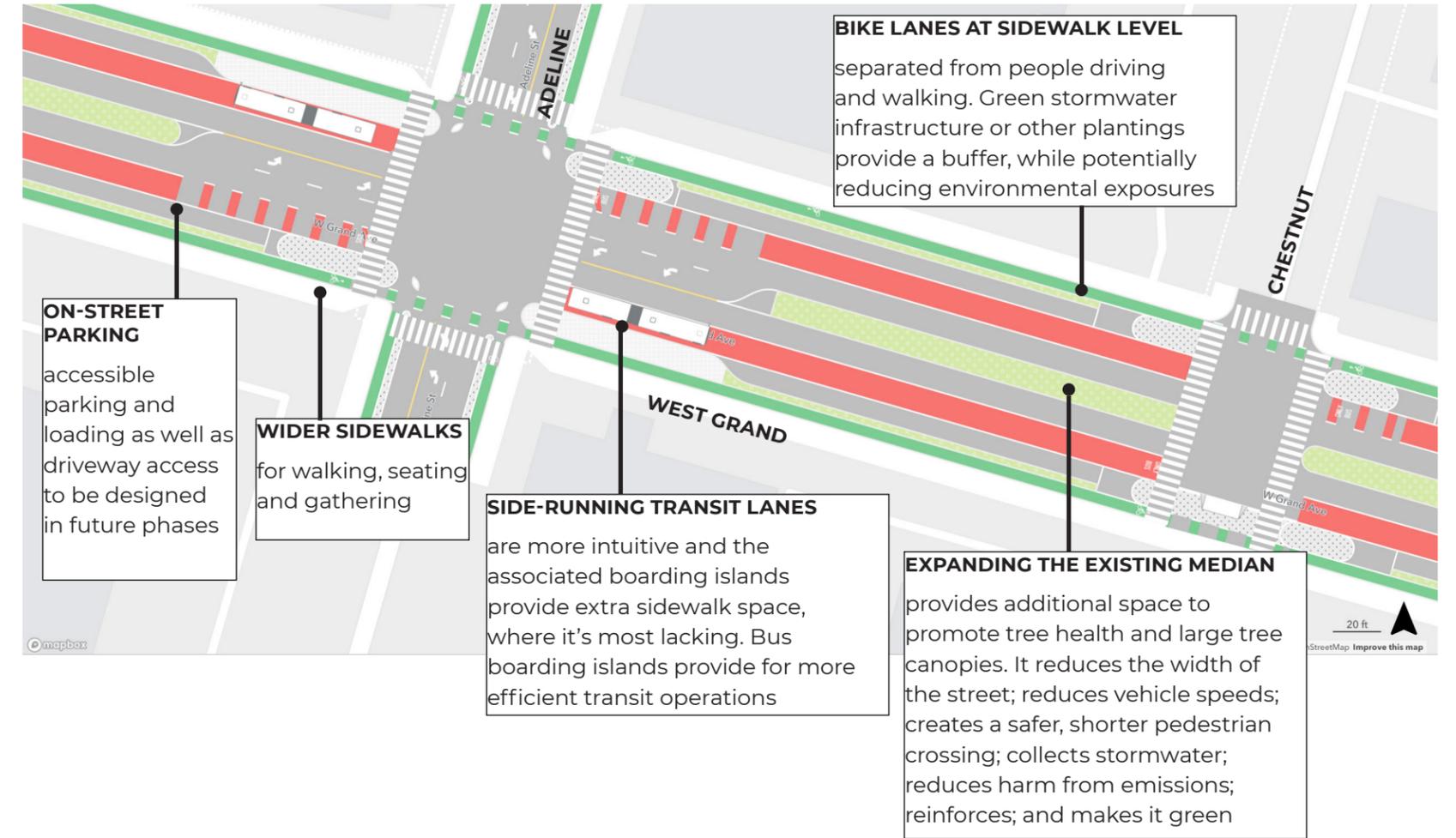
WEST OAKLAND CONDITIONS

Pollution disproportionately affects vulnerable communities along Grand Avenue in West Oakland. When compared to the other three segments, the sidewalks are narrower and more likely to be incomplete. People biking experience higher traffic stress as vehicle traffic moves faster. Bus ridership is also higher in this segment. For more equity indicators and data collected, please see Chapter 2.

WEST OAKLAND PRIORITIES

West Oakland-specific targeted outreach yielded support for accessibility, safety, intuitive street design (and side-running transit, in particular), and beautification. Virtual open house respondents in this segment were evenly split between preferring the Bike/Micromobility design option (34%) and the Activated Median design option (34%). For more on what we heard and evaluated, please see Chapter 3.

FIGURE 2: West Grand Avenue (Adeline Street to Chestnut Street) Planning-Level Concept



ON-STREET PARKING
accessible parking and loading as well as driveway access to be designed in future phases

WIDER SIDEWALKS
for walking, seating and gathering

SIDE-RUNNING TRANSIT LANES
are more intuitive and the associated boarding islands provide extra sidewalk space, where it's most lacking. Bus boarding islands provide for more efficient transit operations

BIKE LANES AT SIDEWALK LEVEL
separated from people driving and walking. Green stormwater infrastructure or other plantings provide a buffer, while potentially reducing environmental exposures

EXPANDING THE EXISTING MEDIAN
provides additional space to promote tree health and large tree canopies. It reduces the width of the street; reduces vehicle speeds; creates a safer, shorter pedestrian crossing; collects stormwater; reduces harm from emissions; reinforces; and makes it green

FIGURE 3: Grand Avenue: San Pablo Avenue to Broadway



DOWNTOWN WEST CONDITIONS

Communities are disproportionately burdened by and vulnerable to multiple sources of pollution, particularly adjacent to 1980. This is the one segment of Grand Avenue without buses. Sidewalks are complete but narrow, especially on the north side of Grand Avenue. Bikeway level of traffic stress is fairly high. For more equity indicators and data collected, please see Chapter 2.

DOWNTOWN WEST PRIORITIES

Over half of virtual open house participants recommended the Bike/Micromobility design option, while 27% preferred the Activated Median option and 8% preferred the Vehicle Throughput option. Pedestrian improvements, wider sidewalks, greenery, and better lighting under the freeway were the most commonly voiced priorities. For more on what we heard and evaluated, please see Chapter 3.

FIGURE 4: West Grand Avenue (San Pablo Avenue to Martin Luther King, Jr. Way) Planning-Level Concept

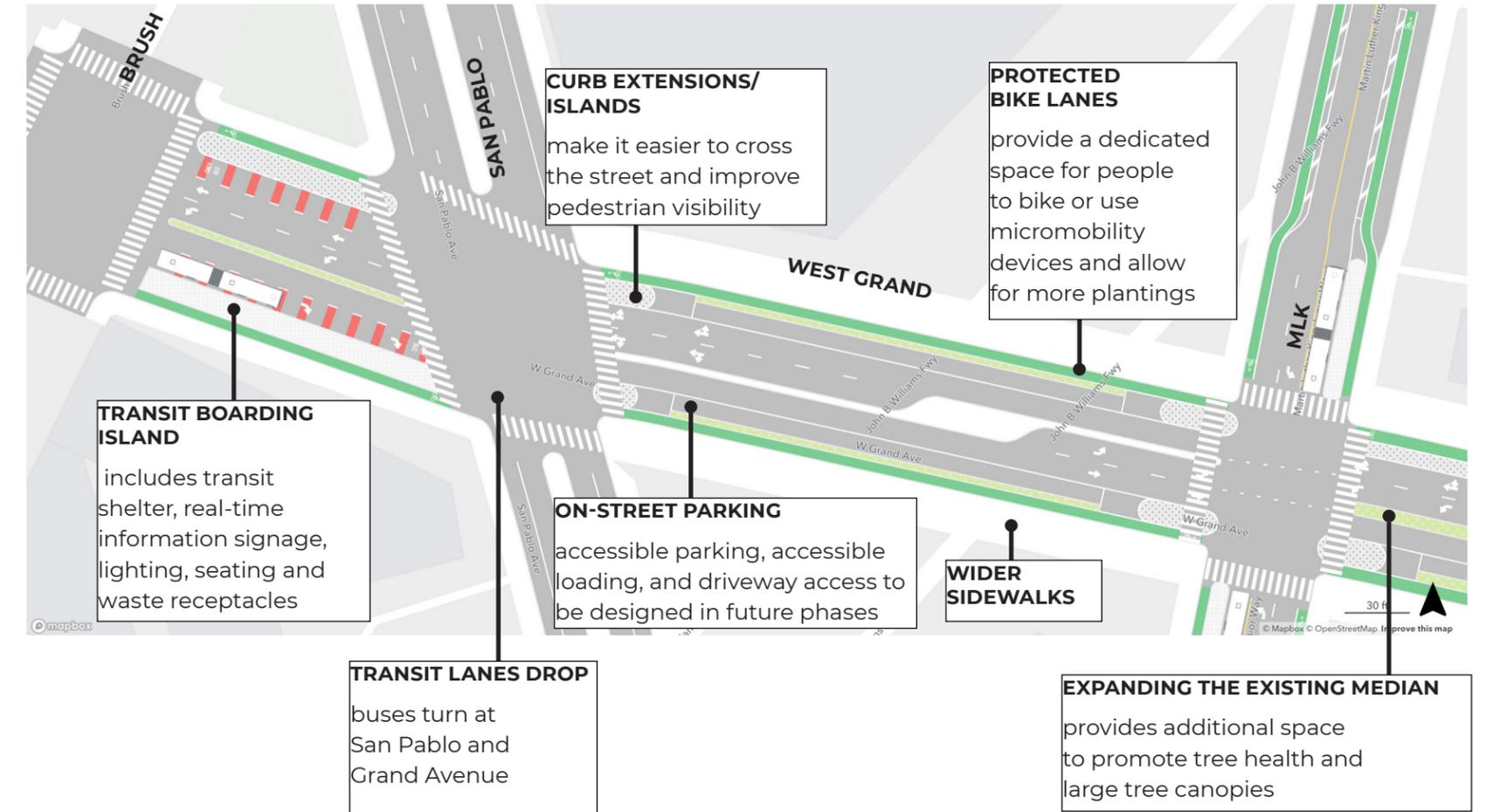
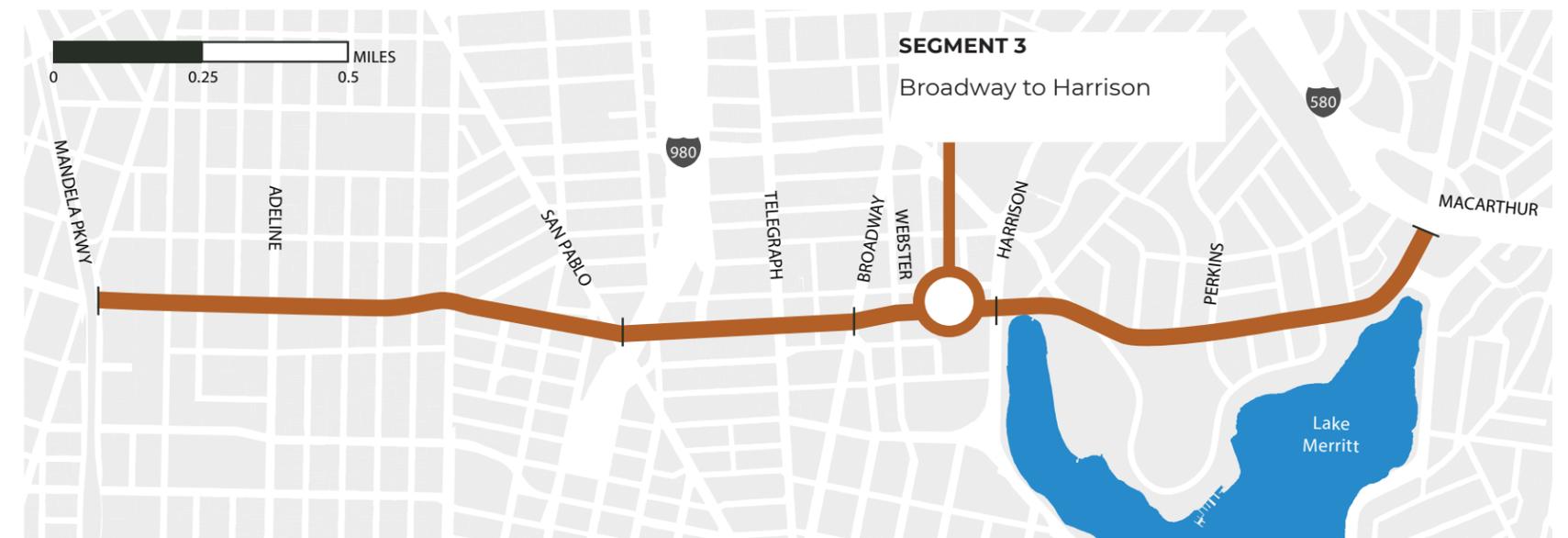


FIGURE 5: West Grand Avenue (Valley Street to Broadway) Planning-Level Concept



FIGURE 6: Grand Avenue: Broadway to Harrison Street



DOWNTOWN EAST CONDITIONS

While the communities adjacent to Grand Avenue between Broadway and Harrison Street still meet MTC's Communities of Concern designation, environmental exposures are lower in this segment than in Downtown West and West Oakland. Westbound and Eastbound bus travel speeds are the lowest on the corridor. Sidewalks are wider and complete. Every intersection has a traffic signal and pedestrian crosswalks. Bikeway level of traffic stress is relatively high.

For more equity indicators and data collected, please see Chapter 2.

DOWNTOWN EAST PRIORITIES

Virtual open house respondents preferred the Bike/Micromobility design option (46%) and the Activated Median option (34%). Common priorities included reducing speeding and providing more greenery, especially where the right-of-way widens, east of Webster Street. For more on what we heard and evaluated, please see Chapter 3.

FIGURE 7: Grand Avenue (Webster Street to Valdez Street) Planning-Level Concept

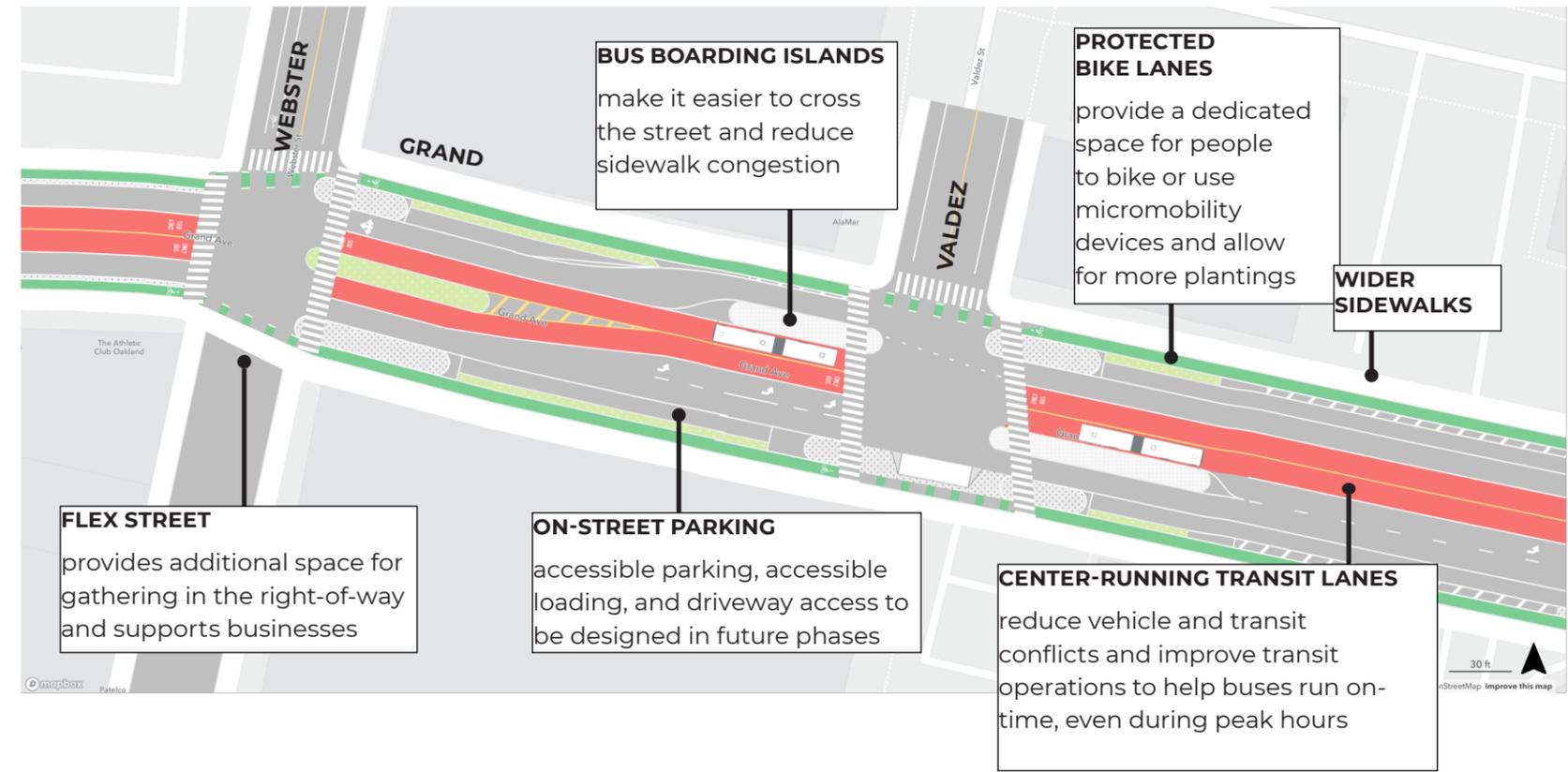
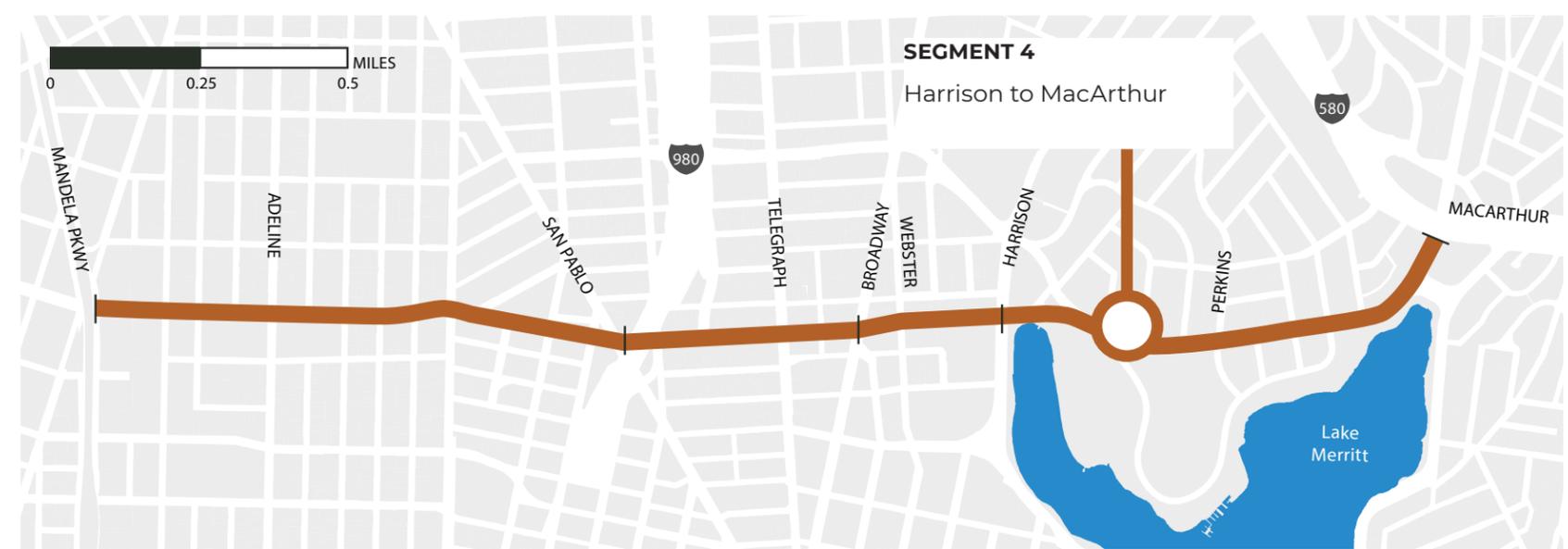


FIGURE 8: Grand Avenue: Harrison Street to MacArthur Boulevard



ADAMS POINT CONDITIONS

In Adams Point, communities enjoy lower pollution burdens than other segments along Grand Avenue. Bus ridership is high, with many travelers boarding and alighting in this area. During peak-hour congestion, transit speeds slow down. Sidewalks are wide with existing street trees or other planted buffers. Bikeway level of traffic stress continues to be high on this segment of Grand Avenue. For more equity indicators and data collected, please see Chapter 2.

ADAMS POINT PRIORITIES

Virtual open house respondents preferred the Bike/Micromobility design option (48%) and the Activated Median option (37%). Common priorities included dissuading people from parking in the bike lane, providing adequate parking and loading, and accommodating special events and other activation of the right-of-way. For more on what we heard and evaluated, please see Chapter 3.

FIGURE 9: Grand Avenue (Harrison Street to Bay Place) Planning-Level Concept

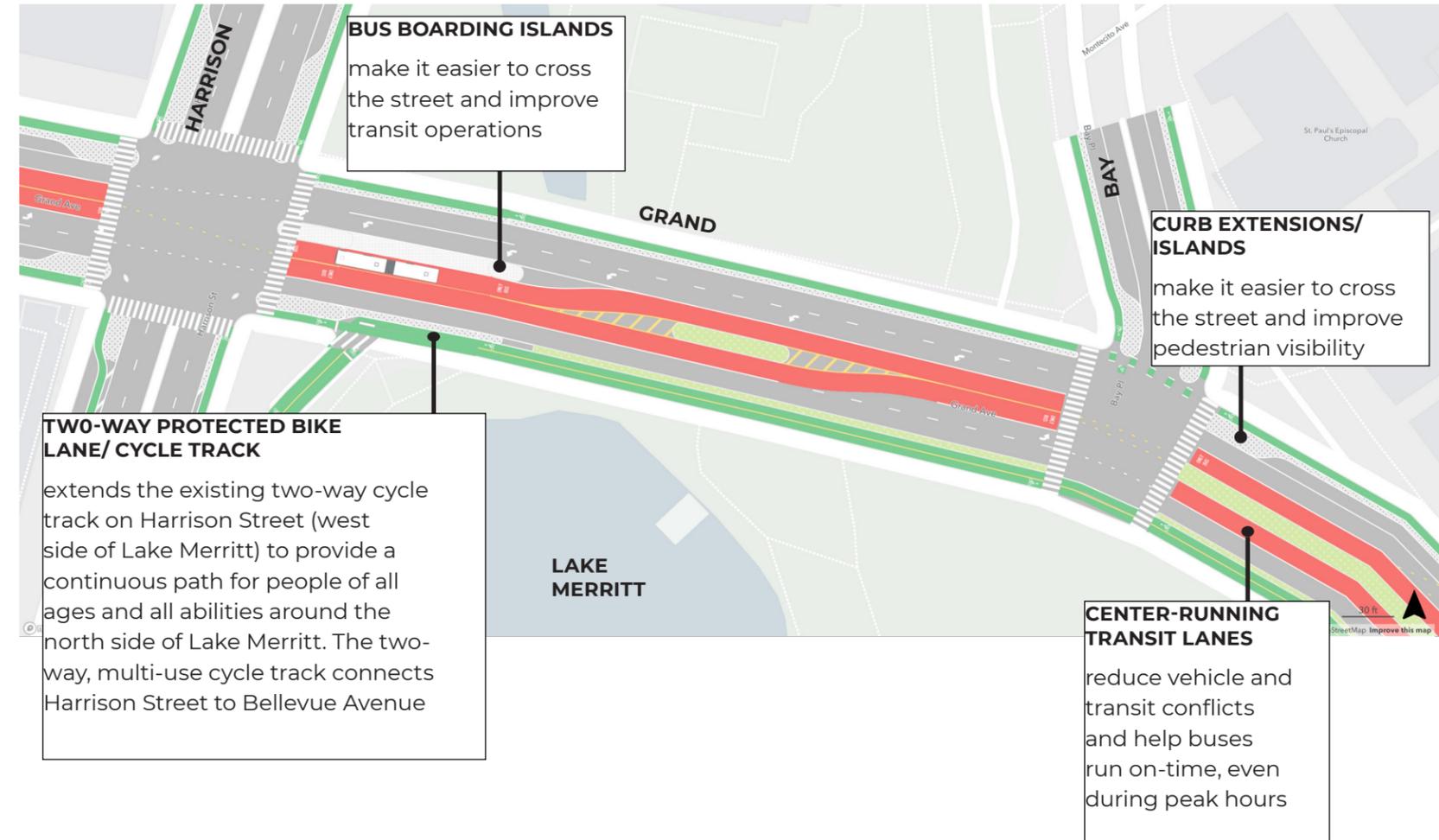
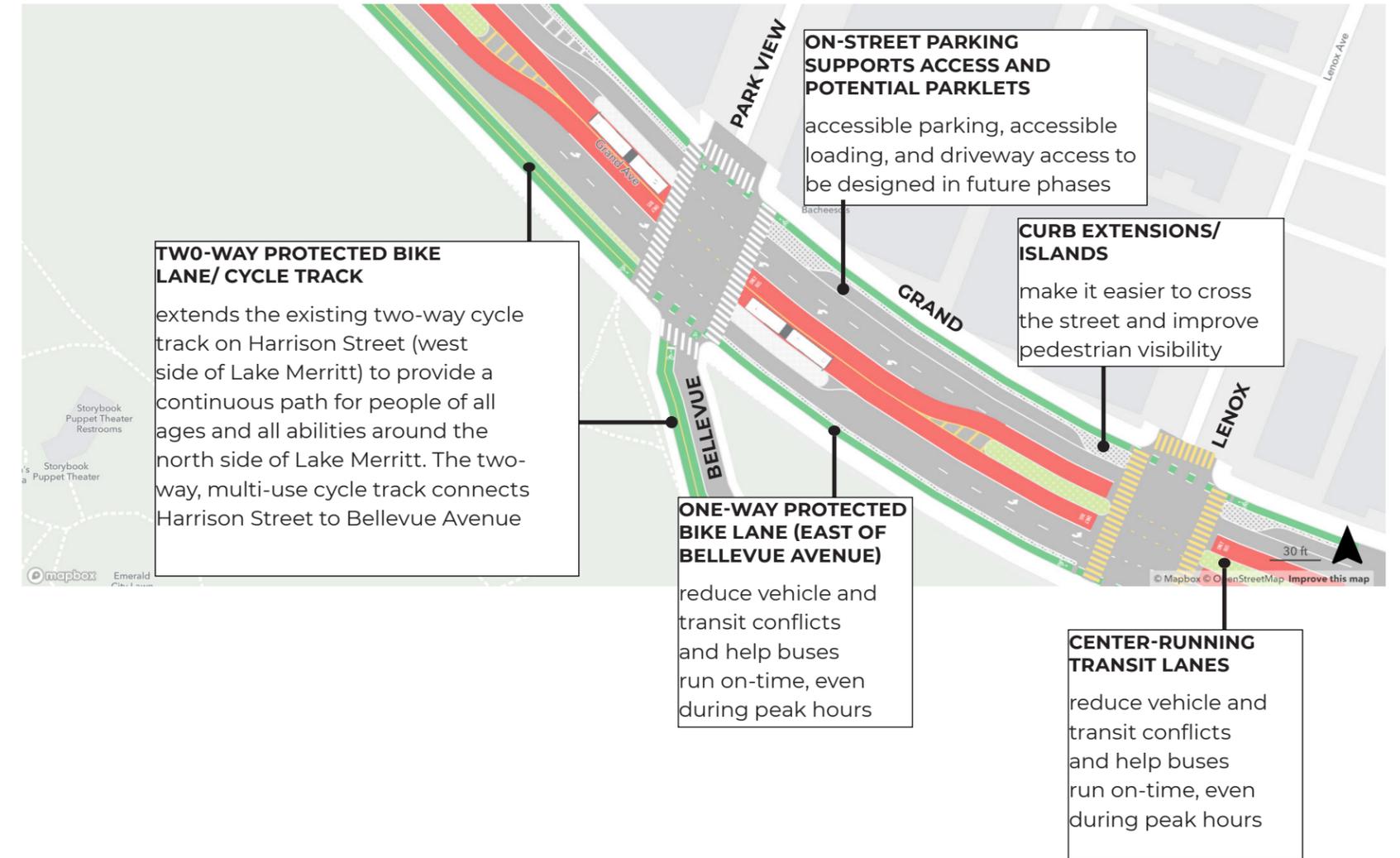


FIGURE 10: Grand Avenue (Park View Terrace to Lenox Avenue) Planning-Level Concept





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Next Steps

Design

The following are necessary prerequisites in order to continue detailed design consistent with the goals and priorities of existing Oaklanders.

- Further engagement with residents and businesses, especially those that were not adequately engaged during the plan, to refine the design
- Continue to work closely with community-based organizations and groups to build and maintain relationships and improve outcomes
- Continue coordination and partnerships with other City departments, advisory commissions, and neighborhood councils as we develop design and through implementation
- Continue coordination and partnerships with AC Transit
- Curb management (i.e. street parking, loading, ADA parking and loading access, etc.)
- Driveway and intersection design

Implementation

Planning-level cost estimates to implement the Grand Ave Mobility Plan are \$118M:

- \$47M to implement the West Oakland recommendations
- \$19M for Downtown West
- \$13M for Downtown East
- \$39M for Adams Point

The OakDOT two-year Capital Improvement Program budget is about \$175M, the bulk of which is spent on repaving Oakland's streets. As a result, implementation of the Grand Avenue Mobility Plan will likely come in stages and with funding support from federal, state and regional grants.

Upcoming repaving projects on West Grand Avenue and Grand Avenue provide opportunities to begin to realize the goals of the Grand Avenue Mobility Plan.

