



San Bernardino Summary and Recommendations Report

Summer 2024



Safe Transportation Research and Education Center

Acknowledgments

Thank you to the Planning Committee for inviting us into their community and partnering with us to make San Bernardino a safer place to walk and bike.

Our work took place on the ethnohistoric territory of the Tongva (Gabrieleno) and Yuhaaviatam/Maarenga'yam (Serrano) peoples. We recognize that every community member of San Bernardino has, and continues to benefit from, the use and occupation of Tongva (Gabrieleno) and Yuhaaviatam/Maarenga'yam (Serrano) land.

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This report was prepared in cooperation with the California Office of Traffic Safety (OTS). The opinions, findings, and conclusions expressed in this publication are those of the author(s) and not necessarily those of the OTS.

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Introduction

The Community Pedestrian and Bicycle Safety Training (CPBST) program is a statewide project of UC Berkeley Safe Transportation Research and Education Center (SafeTREC) and California Walks (Cal Walks). The program uses a modified Safe System Approach to engage residents and safety advocates to develop a community-driven action plan to improve walking and biking safety in their communities and to strengthen collaboration with local officials and agency staff. In alignment with the Safe System approach, the CPBST prioritizes the reduction of fatal and serious traffic crashes involving people walking, biking, and rolling.

Cal Walks and SafeTREC (Project Team) worked with the Planning Committee to develop workshop goals and tailor the curriculum to address the community's safety needs and priorities.

Music Changing Lives (MCL) requested a CPBST in the Arrowhead community of San Bernardino to:

1. Reduce the speeds at which people are driving;
2. Increase the safety of those walking and biking in the community and awareness of alternative forms of transportation; and
3. Identify and prioritize infrastructure improvement projects, including bike lanes, safe pedestrian crossings, and multi-use trails.

The San Bernardino CPBST workshop convened the larger local community on Sunday, June 23, 2024, at Arrowhead Elementary School. Eight participated in the workshop, including representatives from the City of San Bernardino, Soulful Soil Farms, Omnitrans, Music Changing Lives, Sistas Making a Difference, Forgive and Second Chance, and the San Bernardino Unified School District. On the weekend of the San Bernardino workshop, temperatures were over 100 degrees and air quality was poor from nearby wildfires and vehicle emissions, which may have impacted attendance.

The boundaries for the workshop focus area were: Northpark Boulevard in the north, Little Mountain Drive to the west, East Parkdale Drive to the south, and North Waterman Avenue to the east. The Planning Committee chose these boundaries to include key community destinations located in the City of San Bernardino and unincorporated San Bernardino County, including the Music Changing Lives Community Garden, Arrowhead Elementary School, and local businesses in the community, such as Cardenas Market.

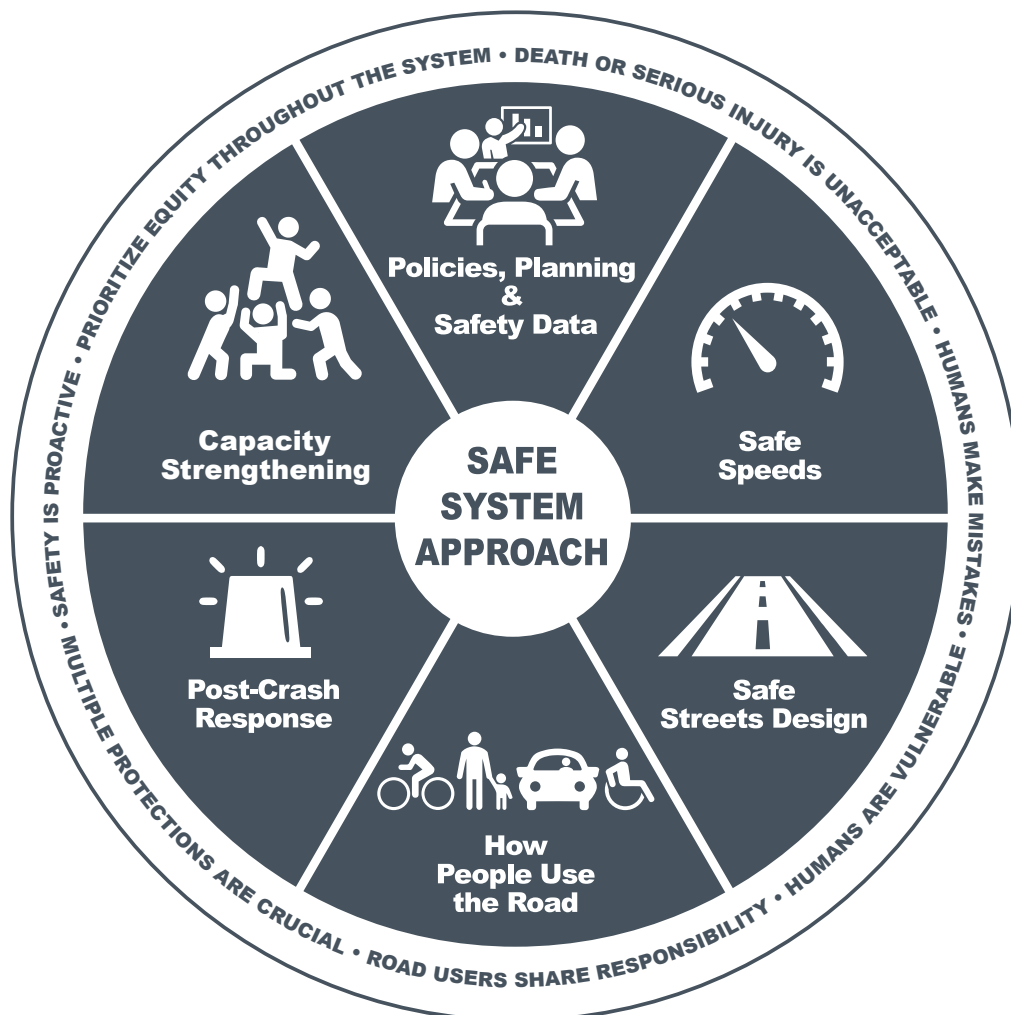
The following report summarizes the outcomes of the workshop and provides community and Project Team recommendations for continued guidance in project and program implementation.

Safe System Approach

The impacts of traffic crashes extend beyond victims and their loved ones, and include substantial economic and societal impacts including medical costs, lost productivity, and quality of life. Preliminary Statewide Integrated Traffic Records System (SWITRS) data for 2022 indicate that traffic crashes caused nearly 4,500 preventable deaths and over 200,000 injuries statewide. People walking, biking, and rolling are especially vulnerable to death or serious injuries when a crash occurs. The Community Pedestrian and Bicycle Safety Program provides an opportunity to integrate the Safe System Approach into programs, policies, and design decisions related to active transportation in communities across California. Our strategies focus on infrastructure improvements, behavior change, and nurturing safety champions.

The Safe System Approach to road safety was developed in response to the Vision Zero goal of zero deaths or serious injuries on our roads¹. It was founded on the principle that people make mistakes and the road system should be adapted to anticipate and accommodate human errors. With this framework, it is increasingly important to engage all stakeholders, from transportation engineers and city planners to vehicle manufacturers to law enforcement and everyday users, to design and operate a transportation system that minimizes serious consequences in the event of a crash. The US Department of Transportation, the California Office of Traffic Safety, and Caltrans have all adopted a Safe System Approach to road safety planning.

The CPBST Project Team adapted the Federal Highway Administration's (FHWA) Safe System Approach to make the framework more impactful for grassroots community engagement.



ABOVE: CPBSP Safe System graphic

1 Johansson, R. (2009). Vision Zero - Implementing a policy for traffic safety. *Safety Science*, 47, 826-831.

The FHWA identifies six key principles within their framework; we emphasize the need to prioritize equity throughout the system to address historic disinvestments and institutional biases. The seven principles of our adapted Safe System Approach are:

1. Death or serious injury is unacceptable.
2. Humans make mistakes.
3. Multiple protections are crucial.
4. All road users share responsibility.
5. Humans are vulnerable.
6. Safety is proactive.
7. Equity is a priority throughout the system.

We replaced the FHWA's safe vehicles element with two new elements, capacity strengthening and policies, planning, and safety design, to reflect the need to engage historically marginalized communities and invest in active transportation safety. Safe vehicles assume turnover of household vehicles for those with new technology; vehicle ownership itself is relatively low in communities where the CPBST works. Instead, we want to provide communities with active transportation safety data and language to advocate for safety improvements that promote multimodal transportation in their communities. The six elements of our adapted Safe System Approach are:

1. Safe speeds: Reduce driver speeds to reduce injury severity for all road users.
2. Safe streets design: Design roads that are people-focused and reduce conflict between users.
3. How people use the road: Create opportunities for and expand awareness of safe walking, biking, and rolling.
4. Post-crash response: Provide physical and emotional care to crash survivors and their families.
5. Capacity strengthening: Empower communities to claim ownership of safe streets and public spaces.
6. Policies, planning, and safety data: Create systems change at the local and statewide policy level.

For more information about the Safe System Approach, please review our [policy brief](#). To learn more about Safe System strategies, please review our [toolkit](#).

Background

The City of San Bernardino is located in San Bernardino County with a population of approximately 223,728². Of its residents, 68 percent identified as Hispanic or Latino and 12 percent identified as Black or African American. The median household income in San Bernardino in 2022 was \$61,323, below the statewide median household income of \$91,551 and below that of San Bernardino County's median income of \$77,423. It had an estimated daily vehicle miles traveled on local roads of 1,999,837 in 2021.³

[Per 2023 Esri Community Analyst data](#),⁴ the City of San Bernardino has many households with one or more persons with a disability (31 percent) and seniors aged 65 or older (11 percent). About 15 percent of all households did not own a personal vehicle and 19 percent of households lived below the poverty level.

The largest commute pattern outside of solo drives to work in the City of San Bernardino was carpooling, with 13 percent followed by 2 percent taking public transportation and 1 percent walking to work. The full demographic report from 2023 Esri Community Analyst data can be found in the appendix.

Furthermore, [CalEnviroScreen](#) shows that census tract 6071005100, which comprises a significant part of the focus area, has high instances of asthma (92nd percentile) and cardiovascular disease (82nd percentile) and is among the highest areas for exposure to ozone (100th percentile).⁵

Local Policies and Plans

The Planning Committee and Project Team identified existing active transportation policies and plans for the Project Team to review to better understand how they potentially impact pedestrian and bicycle safety improvements in the community. The policies and plans reviewed are not intended to be an exhaustive list, but rather a summary of current conditions.

The [San Bernardino Comprehensive Pedestrian Sidewalk Inventory Plan](#) has two phases. The first phase was completed in 2020 and cataloged about 17,000 miles of sidewalk in the county, noting their material, width, and presence. [Phase II](#) intends to collect a more detailed inventory of pedestrian infrastructure, including sidewalk gaps, pedestrian obstructions, and infrastructure deficiencies. Phase II also intends to hold the county accountable for its compliance with the Americans with Disabilities Act (ADA). Notably, the second phase aims to improve First/Last-Mile (FLM) transit connectivity by connecting existing corridors to rail stations and other transit stations. FLM refers to the first and last part of the journey where riders walk, bike, or roll to their nearest transit station or bus stop, given that most trips begin or end on foot.

The Sidewalk Inventory in the aforementioned San Bernardino Comprehensive Sidewalk Inventory Plan indicates that sidewalks are planned to the northeast of the focus area, including Northpark Boulevard, 40th Street, Electric Avenue, and Mountain Drive. These areas include both unincorporated San Bernardino County and the City of San Bernardino.

2 QuickFacts. United States Census Bureau. Retrieved from <https://www.census.gov/quickfacts/fact/table/>.

3 California Office of Traffic Safety. OTS Crash Rankings. Retrieved from <https://www.ots.ca.gov/media-and-research/crash-rankings/>.

4 U.S. Census Bureau 2017-2021 American Community Survey (ACS) 5-year estimates, 2023 Esri Estimates.

5 Census tract 6071005100, CalEnviroScreen 4.0 Results. California Office of Environmental Health Hazard Assessment. Retrieved from <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

The [San Bernardino County Local Road Safety Plan](#) uses both the Safe System approach and Vision Zero as frameworks, intending to create safer roads for all people across all modes of travel. The plan was developed via stakeholder meetings and a multidisciplinary task force assembled to address roadway safety concerns. The task force included staff from Public Works, the Board of Supervisors, the Sheriff's department, Public Health, Regional Parks, Caltrans, California Highway Patrol, and the Fire district. Notable countermeasures that the Safety Plan outlines include: engineering measures like signal modification, roadway redesign, pedestrian refuge and splitter islands, and pavement markings; and non-engineering measures like safe speeds, post-crash care, education, and placemaking.

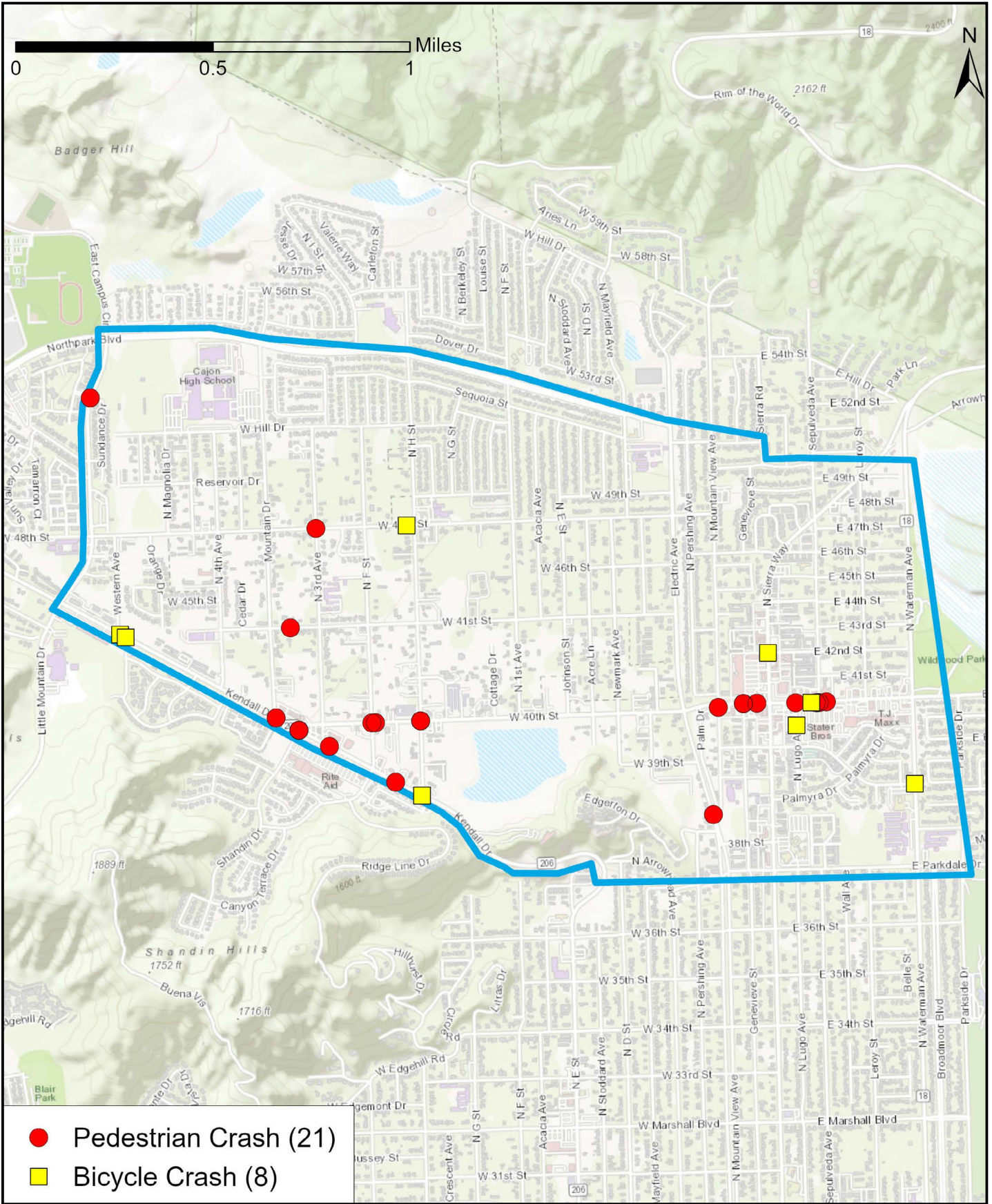
The [San Bernardino City Active Transportation Plan \(ATP\)](#) has five core goals: connectivity, local access and mobility, safety, health and environment, and funding. In its priority corridor list, Electric Avenue and Mountain Avenue from 50th Street to Rialto Avenue is ranked thirteenth. The ATP includes the existing Class II Bike Lane on Mountain View Avenue, which spans 2.55 miles. However, there remain gaps in Omnitrans transit connectivity within the specific CPBST focus area.

Pedestrian and Bicycle Crash History

Per the [California Office of Traffic Safety's Crash Rankings](#), in 2021, San Bernardino ranked 9th out of 60 cities of similar population size for people killed or injured in a traffic crash (with a ranking of "one" indicating the worst crash rate). Most notably, San Bernardino ranked 3rd for hit and runs, 5th for nighttime crashes (9 p.m. to 2:59 a.m.), and 6th for pedestrian crashes.

Similar to the above Crash Rankings, the following data is based on police-reported pedestrian and bicycle crashes in the workshop focus area in the City of San Bernardino. Data reported in this section are from the Statewide Integrated Traffic Records Systems (SWITRS) from 2014 to 2023. Crash data for 2022 and 2023 is provisional as of April 2024. A full discussion of the pedestrian and bicycle crash data can be found in the appendix.

The map on page 9 shows crashes involving a pedestrian or bicycle within the workshop boundaries in which a person was injured from 2019 to 2023. It is important to note that 30 percent of all fatal and serious injury crashes that occurred within the workshop focus area involved someone walking or biking.

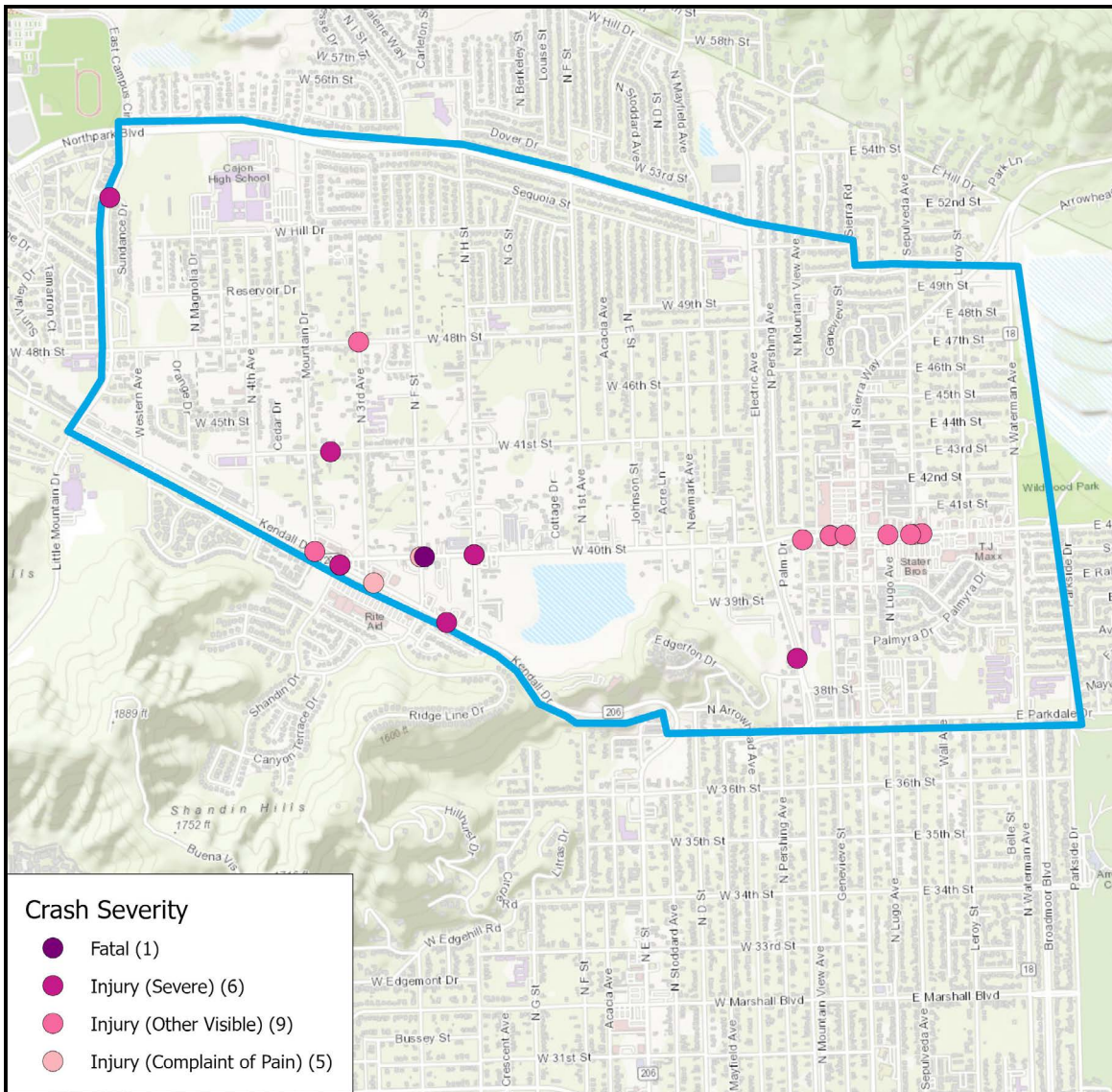


ABOVE: Pedestrian and Bicycle Crash Map for Workshop Focus Area in the City of San Bernardino, 2019-2023. Source: Statewide Integrated Traffic Records System (SWITRS), 2019-2023; 2022 and 2023 data is provisional as of April 2024.

Pedestrian Crashes

Over the 10-year period between 2014 and 2023, pedestrian crashes range between two to six crashes per year, with no identifiable trends. In the most recent five years of data available, from 2019 to 2023, there were 21 pedestrian crashes, which included one fatal crash at the West 40th Street / North F Street intersection. Pedestrian crashes were concentrated on West 40th Street (10 crashes) and Kendall Drive (four crashes). There were six serious injury crashes at the West 40th Street / North E Street, Kendall Drive / Shandin Hills Circle, West 41st Street / Mountain Drive, North Sundance Drive / N Little Mountain Drive, North Electric Avenue / North Mountain View Avenue, and Kendall Drive / North Shandin Hills Drive intersections. Of the 21 pedestrian crashes, 14 crashes (67 percent) occurred between 3 p.m. and 9 p.m. The primary crash factors for most pedestrian involved crashes were pedestrians not walking close to the edge of the roadway when there is no sidewalk present (seven crashes) or due to a driver failing to yield the right-of-way to pedestrians at marked or unmarked crosswalks (six crashes).

Among the 22 pedestrians injured in these 21 pedestrian crashes, there was one fatality and six serious injuries, with minor injuries (15 crashes) comprising the largest number of total injured victims. About one-third (six crash victims) were either killed or seriously injured in a crash. Adults ages 55 or older made up 46 percent of all pedestrian crash victims. One crash victim was a child under five years of age.

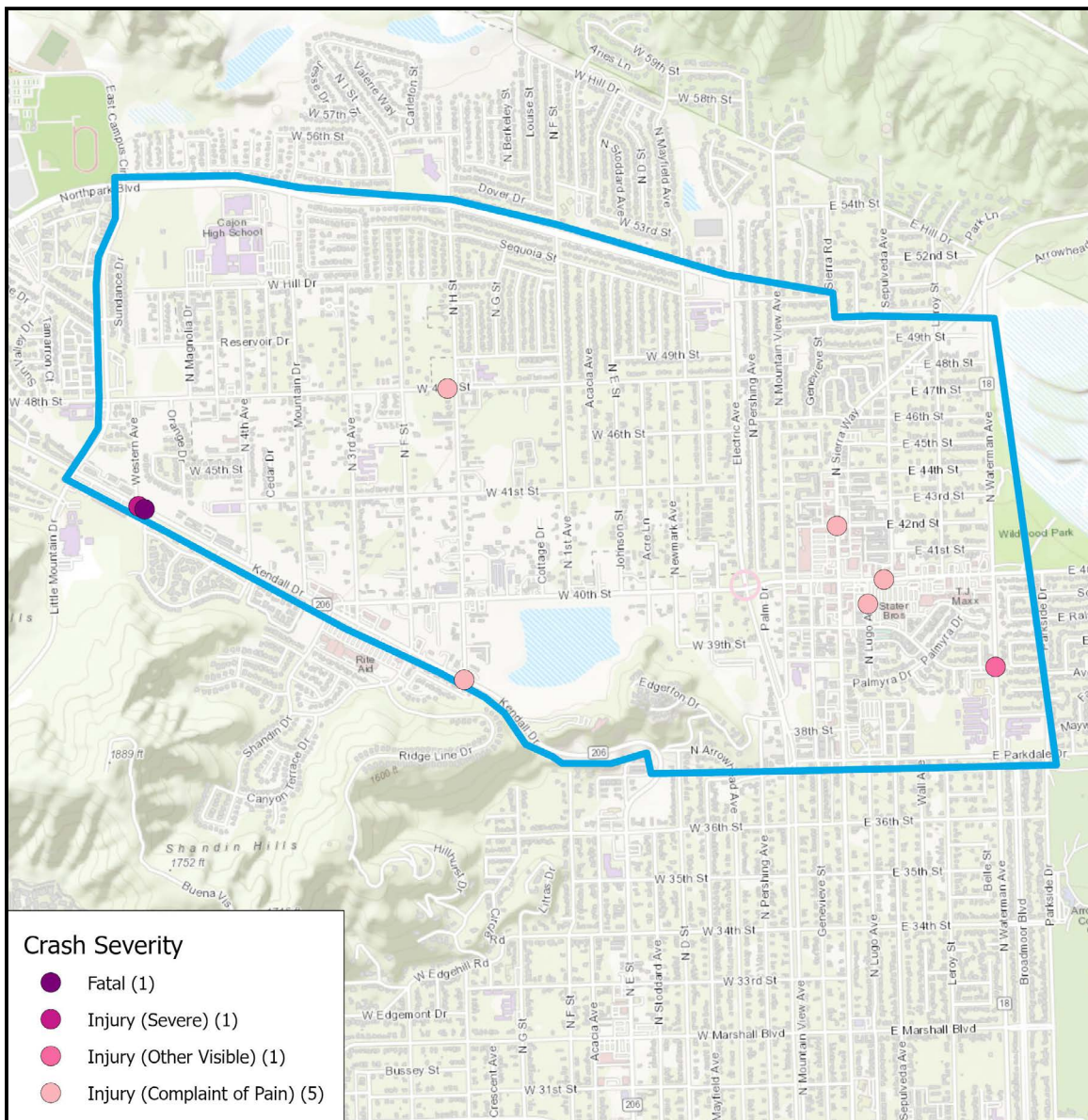


ABOVE: Map showing crash severity in pedestrian crashes in the workshop focus area in the City of San Bernardino, 2019-2023. Source: Statewide Integrated Traffic Records System (SWITRS), 2019-2023; 2022 and 2023 data is provisional as of April 2024.

Bicycle Crashes

Over the 10-year period between 2014 and 2023, bicycle crashes ranged between zero to four crashes. In the most recent five years of data available, from 2019 to 2023, eight bicycle crashes occurred in the focus area. Of the eight crashes, 38 percent took place on Kendall Drive (three crashes) which is an officially recognized bike route. There was one fatal and one serious injury bicycle crash in the focus area at the Kendall Drive / Western Avenue intersection. Half of the bike crashes in the focus area took place in 2023 alone. Due to the lower number of bike crashes than pedestrian crashes, there are no significant trends for the time of day or day of week when the majority of crashes occur. The most common primary crash factor for most of these bicycle crashes was due to the unsafe turning of a vehicle (five crashes).

Among the eight bicyclists injured in these eight bicyclist crashes, all victims were ages 25 or older. Six of the eight injured victims suffered minor injuries. The majority of crash victims were men, consisting of 75 percent of victims.



ABOVE: Map showing crash severity in bicycle crashes in the workshop focus area in the City of San Bernardino, 2019-2023. Source: Statewide Integrated Traffic Records System (SWITRS), 2019-2023; 2022 and 2023 data is provisional as of April 2024.

Fatal and Serious Injury Crashes

Because our work is rooted in the Safe System Approach, we want to prioritize locations with a history of fatal and serious injury crashes when reviewing crash history. Here are the fatal and serious injury crashes involving a pedestrian or bicyclist in the workshop focus area.

Of the seven fatal and serious injury pedestrian crashes, two crashes were on West 40th Street, two on Kendall Drive, one on North Electric Avenue, one on West 41st Street, and one on North Little Mountain Drive. Thirty-two percent of all pedestrian victims were either killed or seriously injured in a crash. Of the two fatal and serious injury bicycle crashes, both took place at the Kendall Drive / Western Avenue intersection. Twenty-five percent of all bike victims are either killed or seriously injured. Looking at the focus area, it sees more fatal or serious injury crashes for both pedestrians and bicyclists than both the state of California and San Bernardino County.

Free SafeTREC Data Resources

The Transportation Injury Mapping System (TIMS) is a web-based tool that allows users to analyze and map California crash data from the Statewide Integrated Traffic Records System (SWITRS). TIMS provides quick, easy, and free access to geocoded crash data. Visit: <https://tims.berkeley.edu>.

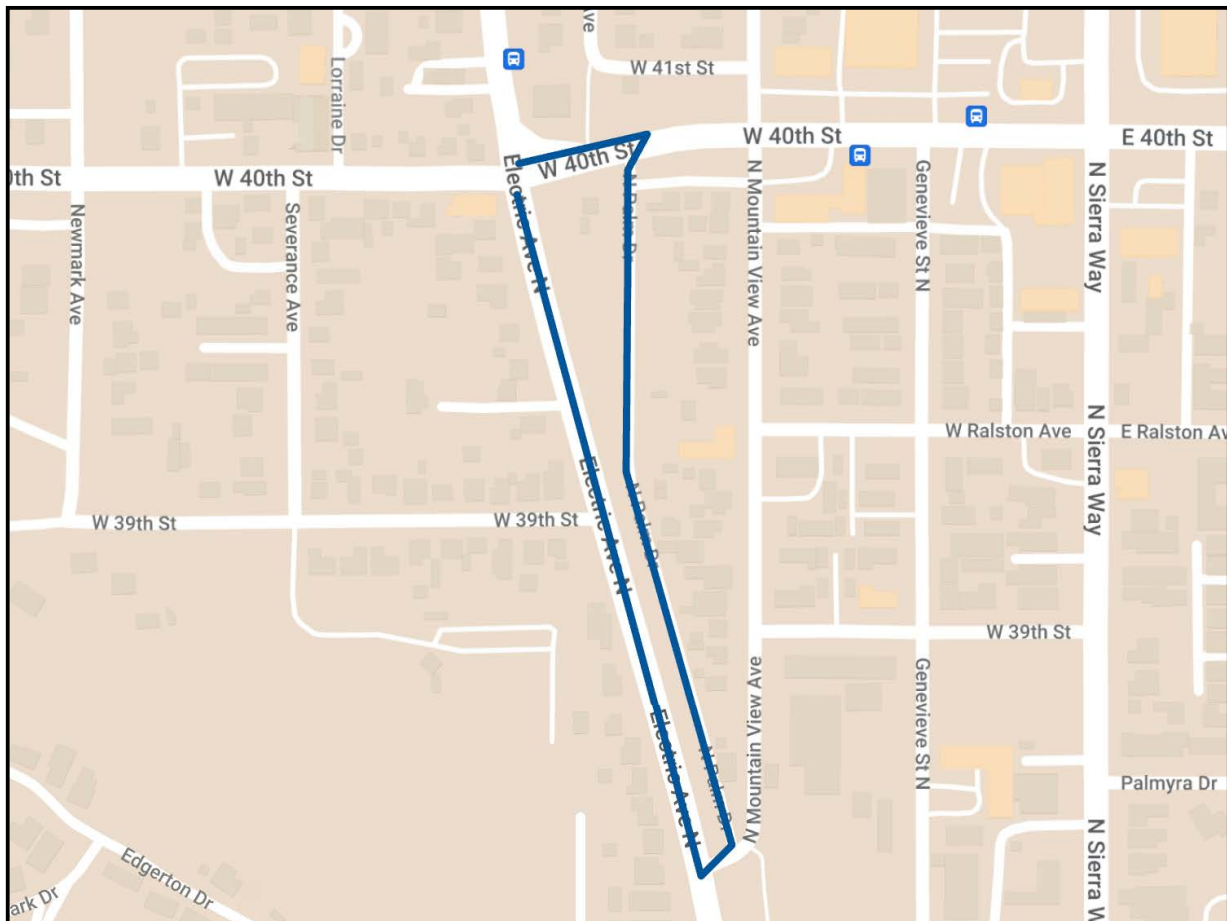
Street Story is a web-based community engagement tool that allows residents and community organizations to gather information that is important to transportation safety, including crashes, near-misses, general hazards and safe locations to travel. To promote access to the tool, SafeTREC offers technical assistance to communities and organizations interested in using Street Story. The platform and the information collected is free to use and publically available in English and Spanish. Visit: <https://streetstory.berkeley.edu>.

Walking and Biking Assessments

During the workshop, the Project Team and participants conducted walking and biking safety assessments along two routes frequently traveled by community residents. Participants were asked to identify community assets, assess infrastructure conditions, and share how road users engage with the built environment. The following is a summary of the walking and biking assessment.

Route 1: Music Changing Lives Community Garden

The community garden is a public-private partnership urban garden initiative that utilizes a one acre land in San Bernardino located at the southeast corner of the North Electric Avenue / West 40th Street intersection. Both streets are high-traffic corridors, and drivers seem to regularly speed above the posted 40 miles per hour (MPH) speed limit. North Electric Avenue serves as a major north-south route through the neighborhood and also houses one of the few dedicated bike lanes. West 40th Street serves as the major east-west corridor both in the neighborhood and into further reaches of San Bernardino. West 40th Street narrows from four lanes to two lanes on the westside of Electric Avenue and widens to four lanes westbound crossing Newmark Avenue. This was identified at the CPBST workshop as a safety concern that causes drivers to reduce speed rapidly to navigate the lane changes. The San Bernardino County Fire Station 227 is located on the north east corner of West 40th Street / Electric Avenue adding to the concern of speeding drivers and navigating emergency vehicles pulling out onto West 40th Street. Because of their size and vehicular traffic on them, both North Electric Avenue and West 40th Street pose many challenges for those walking and biking.



ABOVE: The first route travels from the southwest corner of Arrowhead Elementary School, northward on North Palm Drive, turns left on West 40th Street, then left onto Electric Avenue North. The route continues southward on Electric Avenue North, then turns left to return to Arrowhead Elementary School again.

Strengths

1. The Music Changing Lives (MCL) Community Garden provides many community benefits:
 - a. A linear dirt trail path travels from North Mountain View Avenue northward to West 40th Street. The path provides a walkable space perpendicular to North Electric Avenue to the west and North Palm Drive to the east.
 - b. Trees, flowers, and other greening provide both a green space and much-needed shade for the community to have a more comfortable gathering place that is accessible on bike and on foot;
 - c. Provides fresh food to the community with the crops grown on-site; and
 - d. Programming for youth takes place in the garden in an area that participants named is otherwise not safe for youth in San Bernardino.
2. Music Changing Lives brings together a diverse array of community members and local organizations through their programming, reaching a large audience who can be activated around local issues and projects. Some of those engaged include local youth, Sistas Making a Difference, Soulful Soil Farms, Forgive and Second Chance, Uplift San Bernardino, Making Hope, and more. This coalition can be mobilized in future transportation planning to represent the community's interest.
3. Across the street from the Community Garden is Tom Gould Memorial Park, which provides community members with another green space.
4. There are conventional bike lanes on North Electric Avenue that run north-south from West 38th Street to West 40th Street.



ABOVE: A pathway was paved for pedestrians to be able to walk to the MCL Community Garden.

Strengths, continued



ABOVE: Tom Gould Memorial Park provides community members with green space.



ABOVE: A mural is painted on the MCL storage space as a form of placemaking.

Concerns

1. Bus shelters along West 40th Street are often used by the unhoused, who do not have another safe place to sleep, often limiting refuge from the sun for transit users during the summer months.
2. Stray dogs and coyotes are present in the community, a major safety concern for youth and elders walking.
3. North Palm Drive is to the east of the Community Garden and is used as an alternative route by drivers to connect to West 40th Street. The concern is that the road is narrow, and the back of the houses face North Palm Drive, parked cars and debris obstruct the view of drivers. There are no road markings or signs to indicate if the road is separated into two lanes or a posted speed limit making it unsafe for pedestrians and bicyclists.
4. Bicyclists traveling southward on North Electric Avenue weave in and out of the roadway from the dirt path to let drivers pass when crossing West 38th Street. While there is a dirt path that snakes through greenspace leading to the garden on the east side of North Electric Avenue between West 38th Street and West 40th Street, the path is unpaved and ends abruptly without connecting to the sidewalk or crossing leg on North Electric Avenue/ West 40th Street or North Electric Avenue/ West 38th Street. This can pose difficulties for people using assisted mobility devices because there is no access to the curb ramps from the dirt path.
5. West 40th Street / North Electric Avenue Intersection:
 - a. The audible pedestrian signals at the south end of the West 40th Street / North Electric Avenue intersection do not work when pushed by a pedestrian traveling west to east. During the Site Visit, the Project Team waited several cycles in order for the pedestrian signal to turn on and allow those walking to cross the intersection.
 - b. Drivers routinely perform dangerous maneuvers, including illegal u-turns, at the intersection. The workshop participants, the Planning Committee, and the Project Team's personal experiences reinforced these behaviors.
 - c. The street pavement is cracked and uneven on the east and west ends of the intersection. The existing dirt path that meanders northward on the westside of North Electric Avenue does not connect to the sidewalk on the south side of West 40th Street, limiting access for those using multi-modal devices. The sidewalk on the north east side of West 40th Street is cracked and uneven, creating an unsafe crossing for pedestrians and bicyclists as drivers moving westbound on West 40th Street turn sharply northward on North Electric Avenue. There is no sidewalk on the northwest side of West 40th Street for pedestrians to connect to. The unpaved sidewalk leading to a bus stop northward of the intersection on North Electric Avenue is inaccessible and located in a space that many drivers use as an unofficial turnout area. This leaves vulnerable pedestrians waiting for the bus in a potentially dangerous situation where cars going 40-plus MPH are swerving into the dirt path of the bus stop to make u-turns.
6. There is little infrastructure or signage to alert drivers that bicyclists are in the area and what little signage does exist is often obscured by foliage or faded.
7. The northbound bike lane on North Electric Avenue is painted green as you near the West 40th Street / North Electric Avenue intersection, but then disappears, and those biking are then put directly into traffic to navigate a shared lane with fast-moving traffic and oncoming traffic from a slip lane on the right. In order to navigate back to a designated bike lane, the bicyclist must navigate through a shared lane with drivers and then be able to cross a traffic lane of vehicles to reach the bike lane. The bike lane is filled with debris which creates another dangerous situation for those biking in the neighborhood.
8. People driving seem to drive well above the posted 40 MPH speed limit on West 40th Street, which can result in more serious injuries in the event of a crash. Tom Gould Memorial Park has a metal crash barrier, or guardrail, alongside the south end of the park to protect park users given the crash history at this location. Those walking alongside the park are not protected in the same way and are vulnerable if a crash occurs.

Concerns, continued



ABOVE: A tree obscures a bike sign along North Electric Avenue just past the North Electric Avenue / West 40th Street intersection.



ABOVE: The lack of sidewalks in the neighborhood makes traveling as a pedestrian difficult and unsafe.



ABOVE: The bus stop just north of the North Electric Avenue / West 40th Street intersection which is inaccessible for some community members.

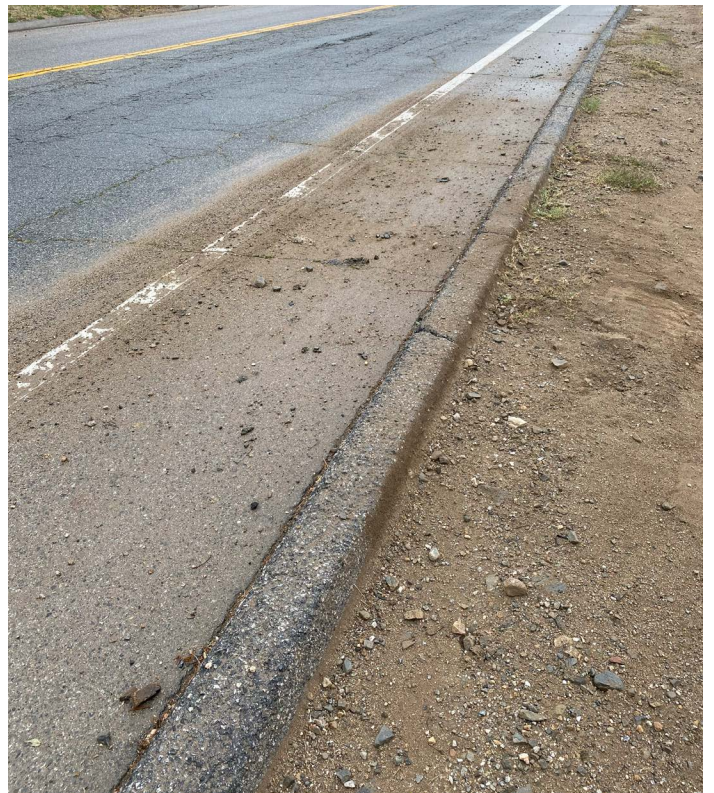
Concerns, continued



ABOVE: A car rapidly maneuvers out of the right slip lane into the left lane on West 40th Street.



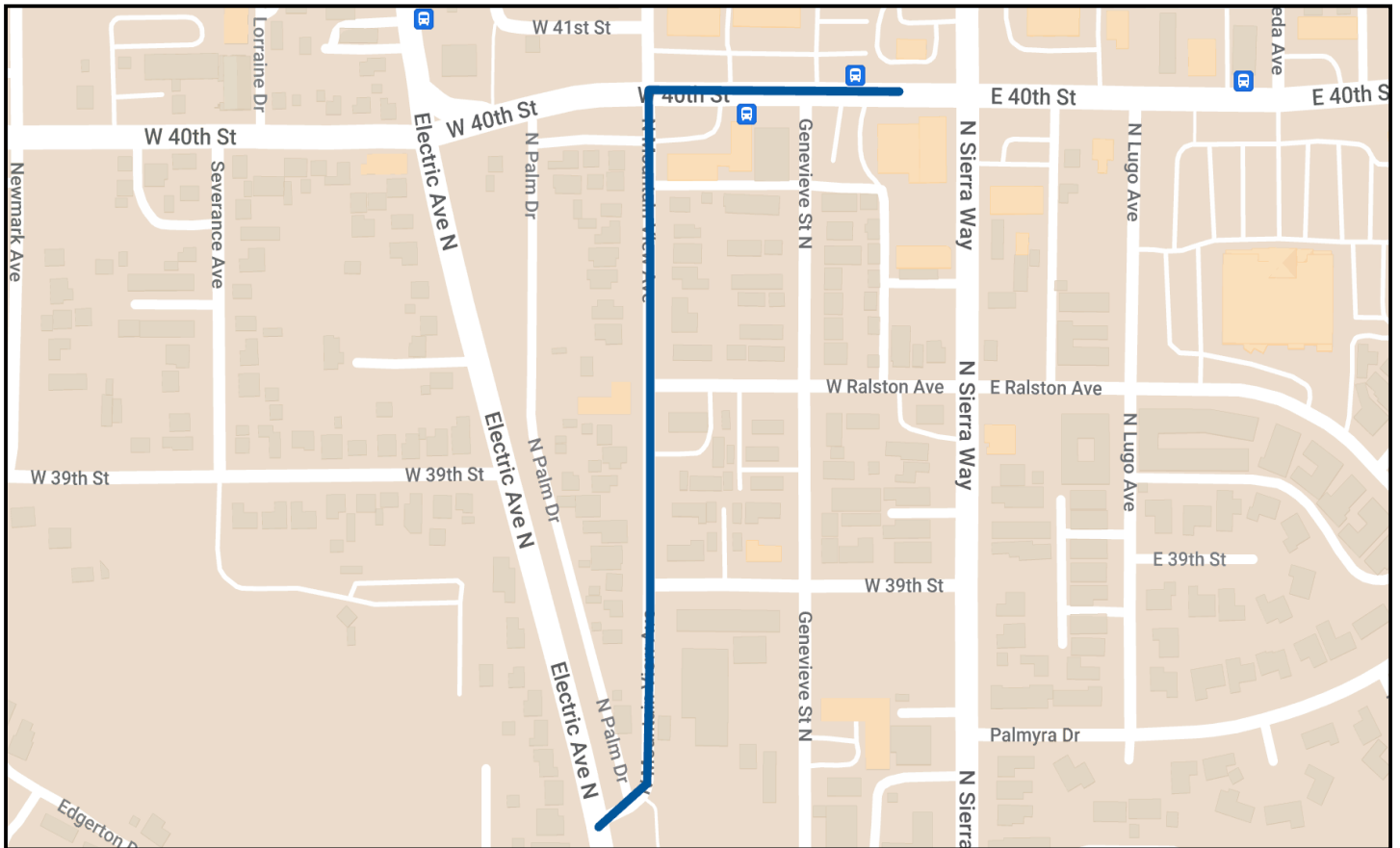
ABOVE: Cracked, uneven pavement and sidewalk at the West 40th Street / North Electric Avenue.



ABOVE: Debris covers the majority of the bike lane on North Electric Avenue, creating a hazard.

Route 2: Arrowhead Elementary School

Arrowhead Elementary School is located on North Mountain View Avenue, between two high-traffic corridors, North Electric Avenue and North Sierra Way. Students and their families walk and travel along North Mountain View Avenue, West 40th Street, West 39th Street, West 38th Street, and Genevieve Avenue to access the school. North Mountain Avenue curves just south of campus and becomes a major north-south route for the neighborhood. Any pedestrian and bicyclist safety improvements implemented at Arrowhead Elementary School can serve as an example for other San Bernardino schools.



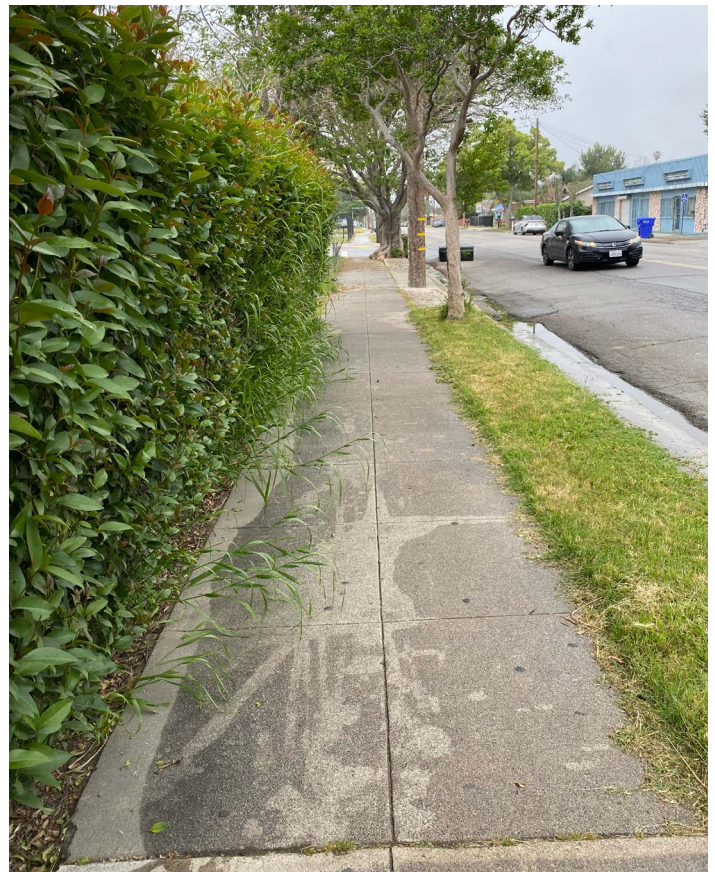
ABOVE: The second route travels from the southwest corner of Arrowhead Elementary School northward on North Mountain View Avenue, then turns right onto West 40th Street and stops at the West 40th Street/North Sierra Way intersection.

Strengths

1. Arrowhead Elementary School is centrally located between four accessible green spaces: the MCL Community Garden, St Sierra Park, Harper Field, and Tom Gould Memorial Park. These green spaces provide students and community members with safe places to recreate and gather.
2. Within the immediate vicinity of campus, there is high-visibility school zone signage, yellow continental crosswalk markings, and stop signs that draw drivers' attention to the presence of pedestrians and bicyclists traveling to and from Arrowhead Elementary School.
3. Sidewalks are available on the streets that border campus: North Mountain Avenue, West 39th Street, and Genevieve Avenue.
4. Medians provide significant space between high-speed vehicle traffic and those walking to school on North Mountain View Avenue between West 38th Street and the North Mountain View Avenue / North Electric Avenue / North Palm Drive intersection. There is opportunity for adding greenery and other greening features into the currently dirt-filled medians.
5. Tree coverage along North Mountain View Avenue provides shade during arid hot weather. In San Bernardino, median summer temperatures reach 99°F.
6. Arrowhead Elementary School has a designated loading and unloading zone for school arrivals and dismissals which provides safe, direct access to the curb.
7. During the workshop, school board members and the City of San Bernardino expressed a commitment to the safety and wellness of those walking and biking to and from campus.



ABOVE: A designated loading and unloading zone at Arrowhead Elementary School.



ABOVE: Trees on North Mountain View Avenue provide much-needed shade in the neighborhood.

Concerns

1. Those driving just south of campus on North Mountain View Avenue seem to speed well above the posted 40 MPH speed limit signs. These drivers then speed along the bend when traveling north toward campus, posing a serious risk for those walking and biking to school because higher vehicle speeds increase the likelihood of serious or fatal injuries, especially for vulnerable populations like schoolchildren. The speed limit near campus is 25 MPH, but drivers seldom slow down in time because there is only one speed limit sign ahead of the immediate change. The posted speed limit sign is at the curve, which is easy to miss if someone is turning at 40-plus MPH. Drivers often fail to make a complete stop at stop signs, leading to near misses and crashes with pedestrians near campus.
2. There is little shade coverage on West 40th Street which deters many from walking to and from destinations along the corridor. Those who do walk along the corridor are faced with faded crosswalks, cracked and uneven pavement, and cars traveling at speeds above the posted 40 MPH speed limit.
3. There is an unmarked crosswalk at West Ralston Avenue / North Mountain View Avenue. No visual cues, such as pavement markings and painted lines, indicate that pedestrians are legally permitted to cross. This can increase pedestrian vulnerability to collision and cause confusion for drivers over the right-of-way.
4. The space between medians, roadways, and sidewalks just south of the Arrowhead Elementary School campus collects debris and is heavily littered with dirt, tree branches, and other tripping hazards. This debris poses a risk for those walking or biking to school.
5. The North Mountain View Avenue / West 40th Street intersection is wide and hard to safely cross in one light cycle. The crosswalk markings in the intersection are in poor condition, minus the southern crosswalk, making it hard to navigate for those walking, biking, or driving. Because crosswalks and bike lanes are faded, drivers pay less attention to these designated spaces, which results in a lack of visibility for pedestrians and bicyclists and failure to yield to them.
6. Street paving is in varying degrees of disrepair along West 40th Street, North Palm Drive, North Mountain View Avenue, West 39th Street, and Genevieve Avenue, which poses a safety risk to pedestrians crossing the street and those biking or driving along the corridors.
 - a. In particular, the crosswalks at the North Mountain View / 39th Street intersection are faded, cracked, and have potholes that collect water, making it difficult for those traveling to and from Arrowhead Elementary School.
7. The North Electric Avenue / North Mountain View Avenue / North Palm Drive intersection is especially challenging for those walking or biking to and from Arrowhead Elementary School.
 - a. The crosswalk markings are faded and difficult for drivers traveling in both directions to see. Drivers often fail to safely slow down at the intersection or give pedestrians the right of way, causing many near misses at this pivotal intersection near the school.
 - b. The crosswalk between the campus and North Palm Drive lacks curb ramps on both ends. Along with the lack of curb ramps, the western end leads to a small patch of grass and no further sidewalks.
 - c. Street pavement along North Mountain View Avenue is severely damaged, and flooding is an issue whenever it rains. Workshop participants brought up flooding issues, which the Project Team also observed during the site visit. The flooding makes portions of North Mountain View Avenue difficult, if not impossible, to cross.
 - d. The pavement at the intersection is uneven and cracked which makes it even harder to navigate for those walking to and from the school.

Concerns, continued



ABOVE: Conditions on West 40th Street deter many from walking along the corridor.



ABOVE: The North Mountain View Avenue / West 40th Street intersection is wide and difficult to cross safely in one pedestrian interval for some.



ABOVE: The crosswalk at North Mountain View / 39th Street is faded, and cracked, with potholes that collect water, which make it difficult for those traveling to and from Arrowhead Elementary School.



ABOVE: The pavement along Arrowhead Elementary School's campus is damaged.

Concerns, continued



ABOVE: Just south of the Arrowhead Elementary School campus, debris and litter pose a risk for those walking or biking to school.



ABOVE: The North Electric Avenue / North Mountain View Avenue / North Palm Drive intersection poses many risks for those walking, biking, or rolling.

Recommendations

The recommendations in this report are based on observed pedestrian and bicycle safety concerns, Safe System strategies, and workshop participants' priorities. The CPBST prioritizes strategies focused on infrastructure improvements, behavior change, and nurturing safety champions. The suggested timelines and resources needed for implementation are estimated based on general pedestrian and bicycle safety best practices and may need to be further tailored by the community.

Community Recommendations

Participants offered the following programmatic and infrastructure recommendations to create a safer environment for walking and biking. General priorities included:

- Work with Caltrans to install sidewalks on the eastern half of North Waterman Avenue between East 30th and 40th Streets.
- Improve the pavement quality throughout the entire Arrowhead neighborhood, especially near community assets like the Music Changing Lives Community Garden and Arrowhead Elementary School.
- Install pedestrian-scale lighting and fill potholes within the focus area to make it safer for those walking and biking.
- Install traffic calming measures along Kendall Street, which is notably wide and has intermittent bike lanes. Participants said drivers exceed the posted 50 MPH speed limit. In general, community members do not feel comfortable or safe walking or biking along the corridor despite it serving as a major connection to and from the community and their travel destinations.
- Implement more roundabouts in the city. Councilmember Damon Alexander (7th Ward) is a champion for roundabouts at City Council discussions and highlighted his advocacy which resulted in a roundabout installed in northeast San Bernardino.
- Install a Bike Repair Station at the MCL Community Garden or another community asset that could potentially be sponsored by a corporation or community health fund to encourage more people to bike.
- Create a dataset that indicates how many of the walking fatalities are unhoused people, which would help stress the urgency to build more shelters in certain areas and provide more resources to unhoused San Bernardino community members.
- Allot each council member a discretionary fund to use in partnership with ward residents on beautification projects.
- Plant new trees across the focus area to provide shade from the intense heat, especially for children traveling to and from school.
- Create more walkable trails in the community, i.e. converting underutilized spaces like old railroad paths into multi-use trails.
- Create a Community-Led Crosswalk Art and Mural Project that provides local community members, especially youth, with the opportunity to design and create artwork that builds community pride and enhances the safety of those walking and biking.

Bike Safety Campaign

The Planning Committee is dedicated to working together and with other community partners to provide more opportunities for youth to bike because it is important for children to have the skills and knowledge to bike safely. The San Bernardino City Unified School District, in partnership with the Planning Committee and local community organizations, would establish a bi-annual Bike and Roll to School Day to encourage students to bike to school more regularly. The program would highlight helmet use, safety education, rules of the road, and basic group riding skills to help prepare families for the basic necessities of biking to school. Additionally, this program would help to create a community touchpoint around active transportation and increase familiarity for the community with how to meet the needs of people traveling by different transportation modes. To encourage kids to try biking to school, the organizers can provide giveaways to those who participate, which can include items like Bike to School Day branded swag, bike helmets, bike locks, lights, and other safety items. This project would take place citywide, with the initial launch piloted at selected schools.

Project Goals:

1. Provide safe and comfortable opportunities for local youth to bike in a community setting through the establishment of a bi-annual Bike and Roll to School Day event;
2. Build relationships within the community to support the effort and create a culture of traffic safety in the school community; and
3. Educate students on alternative transposition options, the rules of the road, and the benefits of biking to school.

The following groups can be engaged: parents, students, staff, and school board members with the San Bernardino Unified School District, Inland Empire Biking Alliance, local health advocacy organizations, and local health and wellness foundations to fund the efforts, which may include Inland Empire Health Plan, Molina, or Kaiser, Safe Routes National Partnership, Safe Kids Inland Empire, and other bike safety advocates in the community.

The project would take 6-12 months to initiate, and the event would take place bi-annually moving forward.

Potential Safe System Strategies to use: Bike Rodeo, Bike Train, Community Bike Walk, Helmet/light distribution, Safe Routes to School, Bike Count

Action Steps:

1. Identify allies in the community, such as Parent Teacher Associations (PTAs) at local San Bernardino schools, bike advocates, public health departments, school and school district staff, and others.
2. Assemble the coalition as soon as possible given the National Walk and Roll to School Days takes place in October. However, if being able to plan something before the start of the school year is too ambitious, then delay until the second semester of the year to allow more time for planning and coordination.
3. Identify appropriate dates, taking into consideration existing school holidays, nationally recognized days and months recognizing active transportation, and availability of resources to host events.
4. Identify the type of programming to be offered. This can include bike rodeos, walking school buses to school, bike trains to school, safety education, helmet fitting and distribution, bike checks for kids, as well as many other possible options. Make sure to identify an appropriate organization that has the knowledge and expertise to carry out the programming along with any additional resourcing and insurance requirements that may be needed.
5. If additional funding is needed, work with planning committee members to identify potential funding sources that can help cover the costs or provide in-kind donations that will cover some of the resource needs. Funding opportunities may include [Clif Family Foundation](#), [PeopleForBikes](#), and [AARP Community Grants](#).

Notes/Resources:

The Safe Routes Partnership offers many resources for cities to tap into to begin the process of organizing the events and activities that would be a part of such days. For biking events, it is ideal to bring in an organization that has League Cycling Instructors who are certified to teach bike safety education and may have access to tools, resources, and even bikes to use for the purposes of teaching the material.

- [Safe Routes Partnership - paper on integrating bicycle education into physical education curriculum](#)
- [Bikeology Curriculum and Parent Guide](#)
- [California Pedestrian and Bicycle Safety Curriculum for Grades 4 and 5](#) (developed by the California Department of Public Health)
- [Inland Empire Biking Alliance](#)

Community Participatory Planning Program

Project Description: One of the best ways to encourage participation in various city or agency decision-making processes is to establish a participatory effort that involves the community in decision-making. This process usually means carving out a pot of funds and working with the community to decide how to spend those funds to meet their needs. Participatory Planning also allows for more creativity. The program would work closely with local community-based organizations in order to ensure representation of all communities in San Bernardino to ensure equitable outcomes. The community, including local policymakers, see this as an opportunity to build community engagement and investment across San Bernardino, with outside agencies responsible for the launch of the program until the city itself can eventually incorporate a participatory planning program into its annual budget.

Project Goals:

1. Engage the local community in the transportation planning process within their own community and build community pride;
2. Garner community input and provide education to create localized active transportation safety advocates across San Bernardino; and
3. Create and implement localized active transportation projects and programming to create safer, more comfortable communities across the City of San Bernardino.

The following groups can be engaged: the Planning Committee, the City of San Bernardino, City Councilmembers, community-based organizations, and community members.

The project would take 6-12 months to initiate, and the effort would eventually take place annually moving forward as part of the City budgeting process.

Potential Safe System Strategies to use: Community Coalition, Complete Streets, Engaged Local Officials, Funding Opportunities that Prioritize Safety, Vision Zero

Action Steps:

1. The Planning Committee meets with various city and regional agencies to identify which can provide the funding needed to conduct a community participatory engagement effort. This could include Omnitrans, the Recreation and Parks Department, the City of San Bernardino, or San Bernardino County.
2. Once an agency is identified, define the goals and process for allocation of future funding and engagement. Begin outreach to community-based organizations in the impacted area to begin developing a process for educating the community on the opportunity and gathering their input on how to spend the allocated agency funds.
3. Utilize the input gathered to develop the community participatory planning program, and an appropriate plan of action for the funds. Announce the launch of the program citywide to generate interest in the program.
4. Once the first phase is completed, work with all those involved in the planning process to make any necessary changes to make the program as successful as possible.
5. Continue to repeat this process with increasingly larger pots of funds until the City Council builds sufficient trust in the system and establishes a set aside of funds that can undergo the participatory process.

Notes/Resources:

The participatory processes will not be able to satisfy everyone as inevitably, and there will be ideas that cannot get funded because there are not enough funds available. However, the intention behind participatory processes is to encourage more community members to both educate themselves about the subject matter and then be involved in making decisions about how those funds are allocated and spent. In order for this kind of process to succeed, broad participation is needed, and the community must feel like they had sufficient time to educate themselves on the topic area, or else they will likely claim that they were unaware of what they were supporting. This process can be very time-consuming on the front end, but can dramatically reduce pushback from the community once the decisions on spending are made. Finally, it is best to pay community-based organizations as trusted partners and experts to gather the feedback as they have built relationships in the community and can get more honest and broad-ranging feedback than the City will be able to. This also ensures that there will be a representative set of voices showcased in the final outcome.

The resources below provide examples of participatory planning/budgeting processes by different municipal agencies across the country as well as research into best practices for the participatory process.

- [University of Kansas Community Tool Box - Participatory Planning](#)
- [Participatory Budgeting Project](#)
- [Institute for Local Government - Participatory Budgeting](#)
- [Urban Institute - Best Practices for Inclusive Participatory Budgeting](#)
- [City of Cambridge, MA Participatory Budgeting](#)
- [LA Metro - My Metro Budget Activity](#)

West 40th Street / North Electric Avenue Intersection Improvement and Beautification Project

The Planning Committee and workshop participants expressed a need for traffic safety improvements at the West 40th Street / North Electric Avenue intersection. Students, parents, and community members of all ages and abilities cross at this intersection to access the MCL Community Garden, Arrowhead Elementary School, and other community assets. For years, the community has experienced near misses, drivers traveling at high speeds exceeding the posted 40 miles per hour speed limit, and other safety concerns.

Potential improvements to this intersection include eliminating the slip lane on the northside of West 40th Street, installing traffic calming measures, installing beautification elements, fixing crosswalk signals that currently do not work properly, and more. Improvements are slated for this intersection as part of San Bernardino's Capital Improvements Project, so this project seeks to add to the pre-existing project based on community feedback. There is the potential to pilot specific traffic safety elements here that the community and City want to install in the immediate area in future projects as well. This project would encompass the West 40th Street / North Electric Avenue intersection and the immediate vicinity around it.

Another main component of this project is to build out the Omnitrans bus stop just north of the intersection, which is served by Route 6 to California State University, San Bernardino. As it currently exists, the bus stop is located on a dirt path with no accessible sidewalk path to and from the stop. The stop itself only houses a pole with a sign to designate it as a bus stop, with no seating, trashcans, or shelters to offer respite to those using Route 6 while they wait for an incoming bus.

Project Goals:

1. Slow driver speeds and create a safe crossing for those walking and biking at the intersection;
2. Prioritize the safety of bicyclists by improving the existing bike facilities.
3. Install beautification elements that also incorporate water retention and filtering designs similar to the work done at the Music Changing Lives Community Garden; and

The following groups can be engaged: the City of San Bernardino Public Works, community-based organizations, the City Council, and Music Changing Lives.

Planning and community engagement can begin as early as the end of 2024, with possible near-term improvements implemented by the end of 2025. Long-term improvements are likely to take two or more years to implement.

Potential Safe System Strategies to use: Bike Signal, Complete Streets, Curb Ramp, Funding Opportunities that Prioritize Safety, High-Visibility Road Markings and Signage, Permeable Sidewalk/Pavement, Placemaking, Quick-Build Project, Rain Garden, Vision Zero

Action Steps:

1. Traffic Safety Improvements:

- a. The City of San Bernardino and Planning Committee will engage residents about their needs and concerns with the intersection.
- b. Conduct a feasibility study to determine which traffic calming measures to implement at the intersections. Community support is vital and the study should involve community meetings to gather their input.
 - i. In the near term, implement a demonstration project to pilot and test select safety measures identified within the feasibility study. This project would allow the City and Planning Committee to gather community feedback, collect data, and identify desired changes and beautification measures directly from the community.
- c. Identify and obtain funding for the near-term and long-term projects, which may include external funding sources as needed.

2. Beautification:

- a. Work with the City to evaluate if there are any limitations that need to be considered in any beautification processes, including the species of plants, where irrigation is available, and other items that will need to be considered for a sustainable approach.
- b. Begin coordination with community-based organizations to conduct outreach to the surrounding neighborhood about the project and begin gathering their input.
- c. Work with the community to identify what materials, designs, and more they want to see used in the design process.
- d. As things are being designed, work on efforts to apply for funding to pay for the project.

Notes/Resources:

California offers competitive grant funding that can specifically be used for beautification projects, but other funding sources, like regional municipal planning organizations (MPOs). Some state agency funding is available to help not just improve the aesthetics of the street, but also ensure that the landscaping used plays a role in a variety of functions such as drainage management and recharging of groundwater. The designs can also be incorporated into existing projects already altering the streetscape, such as road design changes, and sidewalk improvements.

- [CalTrans Clean CA Grant Program](#)
- [CA Active Transportation Program](#)
- [SCAG Sustainable Communities Program](#)
- [California Climate Investments Funding Resources](#)
- [Active Transportation Program \(ATP\) grants](#)
- [SCAG GoHuman Kit of Parts](#)

Arrowhead Neighborhood Traffic Calming

Workshop participants and the Planning Committee named a need for a community-led traffic calming project within the focus area due to safety concerns and unsafe behaviors from those driving in the neighborhood. This project would implement both pedestrian and bicycle safety infrastructure and traffic calming measures, which may include roundabouts, speed humps, and raised sidewalks to reduce driver speeds within the focus area. In particular, a safe speeds action plan is important to include because speed is oftentimes the determining factor in whether or not a vulnerable road user, like a senior or child, survives in the event of a crash. The project would encompass the focus area, but initial phases may focus on smaller portions of the focus area to pilot safety infrastructure to inform stakeholders on which elements work most effectively to curb the dangerous behaviors that need to be targeted.

Project Goals:

1. Promote and foster a culture of traffic safety in the community that prioritizes yielding the right-of-way to vulnerable road users, safely sharing the road with those walking and biking, and discourages speeding;
2. Reduce driver speeds along key corridors in the neighborhood like West 40th Street, North Mountain View Avenue, North Electric Avenue, and Kendall Drive; and
3. Increase pedestrian and bicycle commuting and recreation through the installation of traffic calming measures that encourage drivers to slow down.

The following groups can be engaged: the City of San Bernardino Public Works, community-based organizations, the City Council, and the Planning Committee.

The duration of the entire program, including long-term infrastructure projects may take two-plus years to complete. In the near-term, some infrastructure elements may be installed through quick-build projects, which are significantly cheaper and easier to install.

Potential Safe System Strategies to use: High-Visibility Road Markings and Signage, Raised Crosswalks, Speed Humps, Curb Extensions (Bulbouts), Designated Safe Routes, Neighborhood Speed Awareness Program, QuickBuild Projects, Reduced Speed Limit Zones, Temporary Demonstration Projects.

Action Steps:

1. The Planning Committee, City Council, and Public Works gather community feedback to identify the specific traffic calming infrastructure elements they want to see implemented.
2. The City of San Bernardino conducts a feasibility study to determine which elements can be implemented quickly and which may take longer.
 - a. In particular, the City should identify opportunities to reduce the speed limit on corridors in the focus area using flexibilities allowed related to speed limit setting under [Assembly Bill 43](#) and [Assembly Bill 1938](#). Together, these assembly bills give local jurisdictions the ability to further lower speed limits on locally-controlled roads and include additional provisions affecting engineering and traffic safety procedures and radar enforceability.
3. The City of San Bernardino will present its findings and project plan to the City Council for approval and allocate funding for near-term and long-term projects.
4. Once projects are implemented, the City will evaluate their effectiveness a year after implementation to determine whether or not changes to the design are necessary.

Notes/Resources:

- [Caltrans Traffic Calming Guide](#)
- [SFMTA's Residential Traffic Calming Program](#)
- [NACTO's Quick Builds for Better Streets](#)
- [California Bicycle Coalition's Quick-Build Guide](#)
- [California Safe Speeds Toolkit](#)

Safe Routes to School Program

Safe Routes to School (SRTS) programming is a multi-pronged approach that promotes walking and biking to school through infrastructure improvements, safety education, and incentives to encourage more families and students to walk and bike to school. SRTS programming also improves community safety, increases student physical activity, and helps address issues in school arrival and dismissal zones. While there have been individual SRTS efforts in San Bernardino like the work done at Newmark Elementary School in 2023, the City of San Bernardino currently has no formalized SRTS plan citywide. Without a formalized program and action steps towards reaching safety goals, the safety of students is at the discretion of the staff and parents at each individual school, which can lead to disproportionate crash risk.

An exploration of a SRTS program would allow the City of San Bernardino, San Bernardino City Unified School District, and the Planning Committee to identify potential funding, stakeholders, and curriculum that is needed in order to make the project a success. One major program feature to consider is a Safe Routes to School coordinator who would oversee the entire program and provide guidance and resources to individual schools. While this project may seem like a large undertaking, crash data and community experiences support the need for prioritizing the safety of schoolchildren in the focus area.

If a SRTS program moves forward, it could include the development of a map of Safe Routes to and from each school that inventory crosswalks, sidewalk gaps, bike lanes, and other infrastructure elements that aid in creating the most comfortable route for a student and their family. This would create a starting point for each school from which they can identify infrastructure enhancements to improve connectivity, circulation, and safety for those walking and biking between schools.

Project Goals:

1. Improve the safety of those walking and biking to school;
2. Encourage an enhanced culture of walking and biking to school by building awareness among all road users; and
3. Identify safe route partners and work with stakeholders to create SRTS programming citywide.

The following groups can be engaged: Parents, Students, the San Bernardino County Department of Health, Omnitrans, the City of San Bernardino, and the San Bernardino City Unified School District.

The Planning Committee can initiate a meeting with the San Bernardino City Unified School District to explore the feasibility of a Safe Routes to School program within 6-12 months. The majority of the project would likely take two-plus years, given the need to identify significant funding for the proposed programming.

Potential Safe System Strategies to use: Safe Routes to School (SRTS) Community Program, Walking School Bus, Bike Train, Designated Safe Routes, Reduced Speed Limit Zones, Safe Passages Program

Action Steps:

1. The Planning Committee can identify community members who want to make walking and biking to school safer for children in San Bernardino. This can include City staff, San Bernardino City Unified School District staff, individual school staff and administrators, Parent Teacher Association, local bicycle or pedestrian advocacy groups, and more.
2. The Planning Committee can host a kickoff meeting with stakeholders to identify the feasibility of launching a citywide SRTS program.
 - a. This meeting may include identifying who would lead the proposed program, potential funding sources, and how a citywide launch might take place.
 - b. The Planning Committee can then identify a champion at each school site who will take responsibility for helping launch any SRTS programming.
3. The Planning Committee can design the engagement campaign discussed at the workshop, including:
 - a. The SRTS campaign to engage students and parents through bike trains, walking school buses, and a bike helmet and bike giveaway.
 - b. A Walk/Bike to School Day event in which students and parents are encouraged to opt into alternative modes of transportation to get to school. The city can plan morning and afternoon meet-up locations in the district so that families can walk with other community members.

Notes/Resources:

- [Safe Routes to School Guide](#)
- [Starting and Running a Safe Routes to School Program, Safe Routes Partnership](#)
- [Safe Routes National Center for Safe Routes to School](#)
- [Defining Roles and Partnerships for Safe Routes to School](#)
- [School Streets Toolkit](#)

Project Team Recommendations

The Project Team recommends the following for local stakeholder consideration.

Pedestrian Wayfinding Project

Work with the City of San Bernardino to establish a [pedestrian wayfinding project](#). Wayfinding visualizes a city from a pedestrian perspective, encouraging walking and transit usage. Because it names destinations and their proximity, wayfinding signage makes pedestrians more comfortable and confident in their walking. Within our focal area, wayfinding signage at the Music Changing Lives Community Garden would guide visitors and local residents, especially youth, around the garden and to other local points of interest.

This recommended project should include disability advocacy groups in San Bernardino, like [Rolling Start Inc.](#), to explore grant funding, and provide necessary accommodations like the number of steps, sidewalk widths, and time required for crosswalks.

Arrowhead Urban Forestry Expansion

Establish partnerships with organizations focused on environmental issues and urban forestry, such as [Tree People](#) and [Urban Forest Conservation](#), to explore the opportunity to provide shade for sidewalks, bike paths, and bus stops. The partnerships should also aim to expand the community's knowledge on opportunities related to urban forestry and gardening and the benefits that they can provide to users of active transportation through community-wide events associated with celebrations such as Earth Day, to explore and promote community participatory processes in planning. Considering the fire-prone areas impacting the roads and homes in San Bernardino, wildfire prevention networks can be utilized to connect the community with free resources and funding sources like the [Integrated Climate Adaptation and Resiliency \(ICARP\) Grant Program](#) and the [CAL Fire Funding prevention grants](#) to assist with general plan safety elements. These improvements can incorporate the planting of fire resistant plants along pedestrian and bike paths and creating defensible space through fire-retarding asphalt pavement. All this will continue to improve comfort for active transportation users and encourage more people to walk and bike.

Build Out the Bike and Sidewalk Networks

One of the biggest concerns named throughout the process was the lack of safe places for community members, especially youth, to bike and walk throughout the focus area. The Project Team recommends the Planning Committee work with the City, transportation agencies, and other stakeholders to build out the current bike and sidewalk networks to provide safe, comfortable routes throughout San Bernardino to community assets and green spaces. There is a major need for filling in sidewalk gaps and providing safer, connected bike lanes in the focus area and throughout the entire City of San Bernardino. The addition of safe, comfortable sidewalks and bike routes throughout the City of San Bernardino would allow community members to access their neighborhoods and other destinations.

Funding opportunities for this may include:

- [Safe Streets for All Grant program](#)
- [Active Transportation Program \(ATP\)](#)
- [PeopleForBikes Community Grant Program](#)
- [Office of Traffic Safety Grant Program](#)

Expand Parks and Open Spaces for Pedestrians and Bicyclists

Coordinate with local planning jurisdictions to provide a network of parks, open spaces, and trails for the youth in the Arrowhead community. The community has remnant vacant land from the former [Pacific Electric Railway System](#), which used to serve the Arrowhead Community in the early twentieth century. Vacant lots of land have been revitalized into walking and biking trails in recent years by cities with similar land uses in Southern California utilizing ATP grants and partnerships with Cal Forest and the Davey Resource Group. Examples of pedestrian and bike trail revitalization projects, also referred to as [Rails to Trails](#), include the Medal of Honor bike and pedestrian trail in [Garden Grove](#), the Red Car Greenbelt in [Long Beach](#), and the Pacific Electric Rail Extension in [Rialto](#).

Appendix

- [CPBST Site Visit Data Presentation](#)
- [Community Analyst Report](#)

Community Pedestrian and Bicycle Safety Training Program

Site Visit

San Bernardino
April 26, 2024

Berkeley SafeTREC

California Walks
Promoting Safe Walking, Biking, & Running



1

Agenda

1. Check-in
 2. Crash Data Presentation
 3. Introduction to the Safe System Approach and Strategies
-
1. Workshop Outreach and Logistics
 2. Next Steps
 3. *Optional: Walk/Bike Assessment*



2

Pedestrian and Bicycle Crash History

San Bernardino, 2019-2023

3

What is a pedestrian crash?



Pedestrian-motor vehicle crash

- Includes a person afoot, on a skateboard, stroller, wheelchair, electric assistive mobility device

One crash may result in multiple pedestrian victims.

4

What is a bicycle crash?



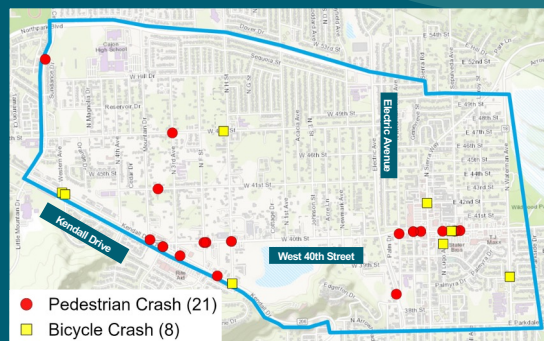
Bicycle-motor vehicle crash

- Bicycles are considered vehicles and therefore violations committed by a “driver” could have been committed by a motor vehicle driver or bicyclist.

5

Overview of crashes in San Bernardino, 2019-2023

- 29 crashes occurred in the workshop focus area:
 - 21 pedestrian crashes
 - 8 bicycle crashes
- Crashes concentrated on:
 - Kendall Drive (11 crashes)
 - West 40th Street (7 crashes)

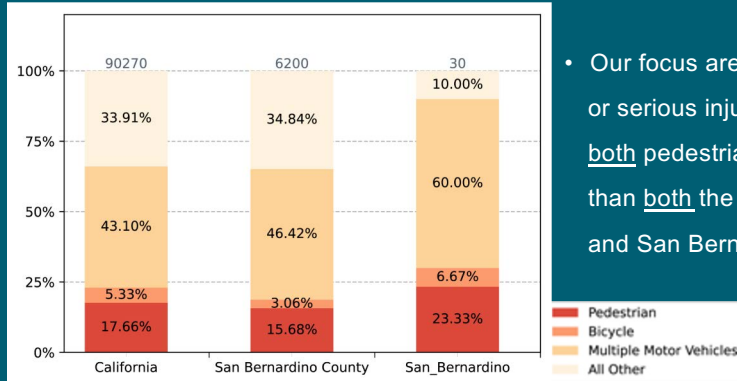


Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

6

How does our focus area compare?

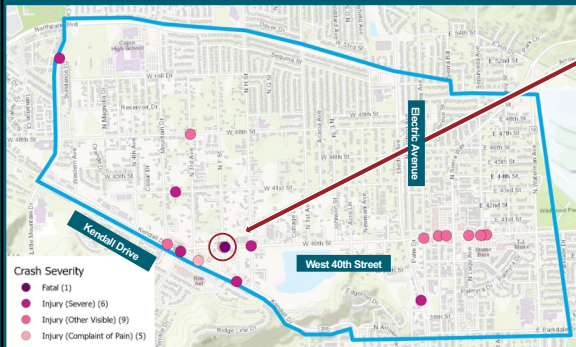
Fatal and Serious Injury Crashes by Involvement 2019-2023



- Our focus area sees more fatal or serious injury crashes for both pedestrians and bicyclists than both the state of California and San Bernardino County.

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

Pedestrian Crashes 2019-2023



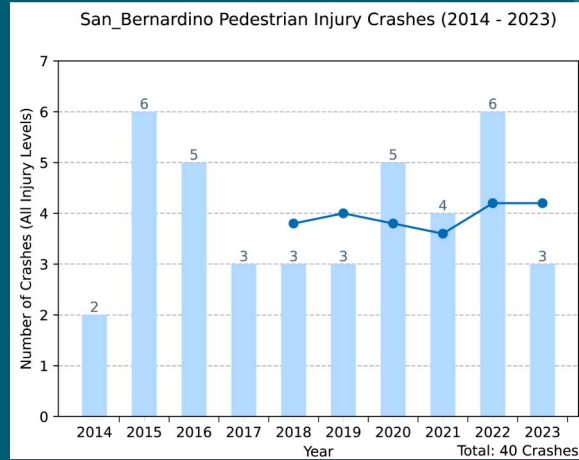
One fatal pedestrian crash at the West 40th Street / North F Street intersection.

Six serious injury crashes took place at:

- West 40th St / North E St
- Kendall Dr / Shandin Hills Cir
- West 41st St / Mountain Dr
- N Sundance Dr / N Little Mountain Dr
- N Electric Ave / N Mountain View Ave
- Kendall Dr / N Shandin Hills Dr

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

Pedestrian Crashes 2014-2023



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023, 2022 and 2023 data are provisional as of April 2024.

Pedestrian Crashes 2019-2023

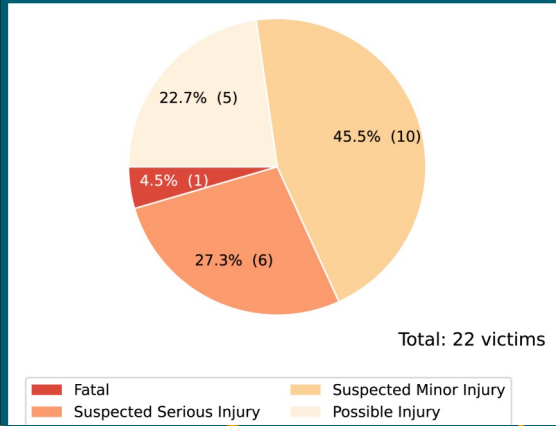
By time of day and week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM	0	0	0	1	0	0	0	1
06:00PM-08:59PM	2	1	1	2	1	2	0	9
03:00PM-05:59PM	1	0	0	1	2	1	0	5
Noon-02:59PM	1	0	0	0	0	1	0	2
09:00AM-11:59AM	0	0	0	0	0	0	0	0
06:00AM-08:59AM	0	0	1	0	1	0	0	2
03:00AM-05:59AM	0	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	1	0	1
Total	4	1	2	4	4	5	0	20

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023, 2022 and 2023 data are provisional as of April 2024.

Pedestrian Crashes 2019-2023

By injury severity



22 people were injured in 21 pedestrian crashes.

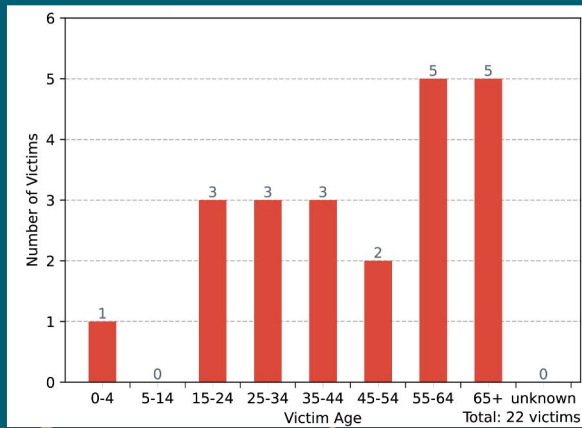
1 of those 22 victims was killed and another 6 were severely injured.

32% of all victims were either killed or seriously injured in a crash.

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

Pedestrian Crashes 2019-2023

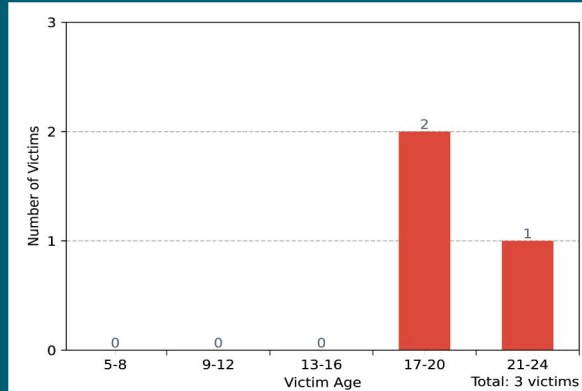
By victim age and gender



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

Pedestrian Crashes 2019-2023

School-aged children



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

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Pedestrian Crashes 2018-2022

Most frequently cited violations in injury crashes

- 7** crashes **21956.** Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present.
- 6** crashes **21950.** Driver failure to yield right-of-way to pedestrians at a marked or unmarked crosswalk.

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

14

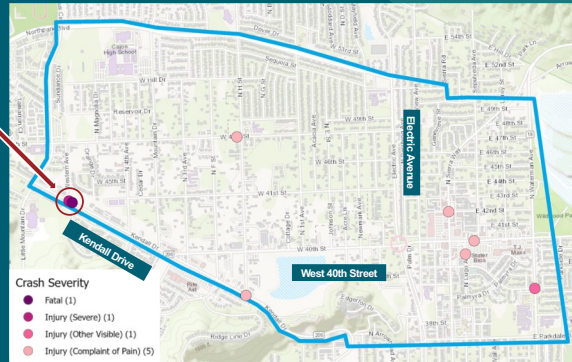
Bicycle Crashes 2019-2023

One fatal bicycle crash at the Kendall Dr / Western Ave intersection.

Only one severe injury crash and it occurred at that same intersection.

37.5% of all crashes occurred on Kendall Drive.

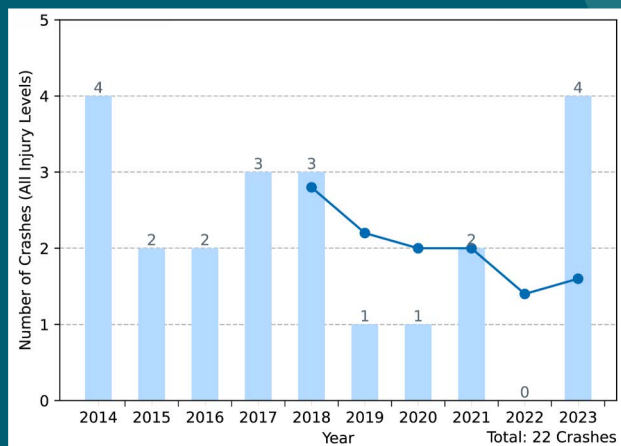
50% of all bicycle crashes took place in 2023.



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

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Bicycle Crashes 2014-2023



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

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Bicycle Crashes 2019-2023 By time of day and week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM	0	0	0	0	1	1	0	2
06:00PM-08:59PM	0	0	1	0	1	0	0	2
03:00PM-05:59PM	1	0	0	0	0	0	0	1
Noon-02:59PM	1	1	0	0	1	0	0	3
09:00AM-11:59AM	0	0	0	0	0	0	0	0
06:00AM-08:59AM	0	0	0	0	0	0	0	0
03:00AM-05:59AM	0	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	0	0	0
Total	2	1	1	0	3	1	0	8

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

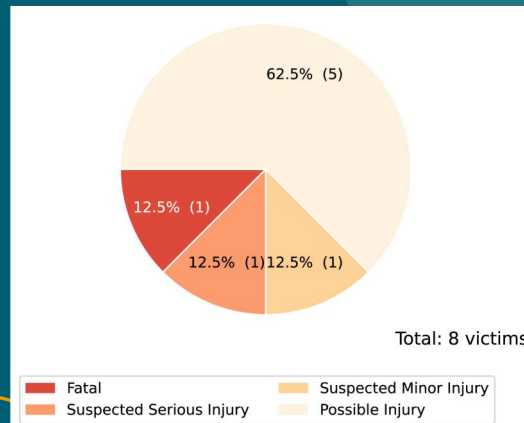
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Bicycle Crashes 2019-2023 By injury severity

8 people were injured in 8 bicycle crashes.

2 of those victims were either killed or seriously injured.

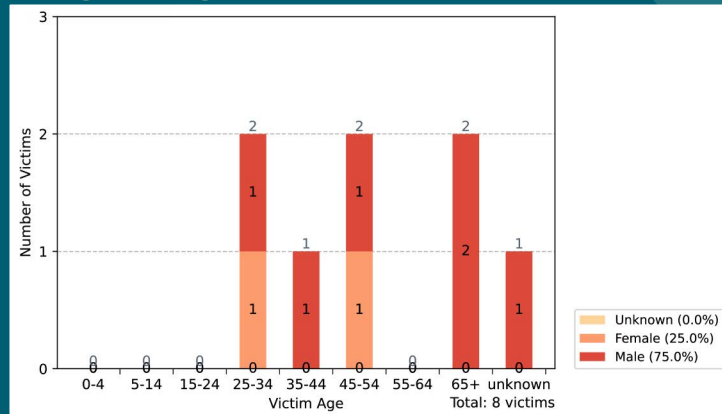
75% of all victims were minorly injured.



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

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Bicycle Crashes 2019-2023 By victim age and gender



Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

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Bicycle Crashes 2018-2022 Most frequently cited violations in injury crashes

- 3** crashes **22107.** Unsafe turning or moving right or left on a roadway. Turning without signaling.
- 2** crashes **21801.** Driver failure to yield right-of-way when making a left turn or U-turn.
- 2** crashes **21202/21650.** Failure to drive on right half of the road.

Data source: Statewide Integrated Traffic Record System (SWITRS) 2019-2023. 2022 and 2023 data are provisional as of April 2024.

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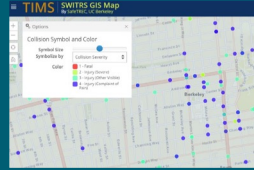
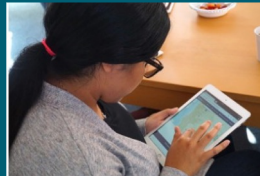
Additional Resources

Street Story

Street Story is a tool for collecting community feedback on transportation safety issues.

Share stories on Street Story of where you've been in a crash or near miss, or where you feel safe or unsafe traveling.

streetstory.berkeley.edu



Transportation Injury Mapping System (TIMS)

TIMS is a web-based tool that allows users to analyze and map data from California's Statewide Integrated Traffic Records System (SWITRS).

To further explore collision data, register for a free account to access the tools and resources on TIMS.

tims.berkeley.edu

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The Safe System Approach

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The Safe System approach is *human-centered and proactive*.

Center vulnerable populations experiencing a disproportionate rate of injuries and fatalities.

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The Safe System Approach:

- **Commits to zero traffic deaths and serious injuries;**
- **Creates a holistic approach with layers of protection for road users; and**
- **Prioritizes safety in road system investments.**

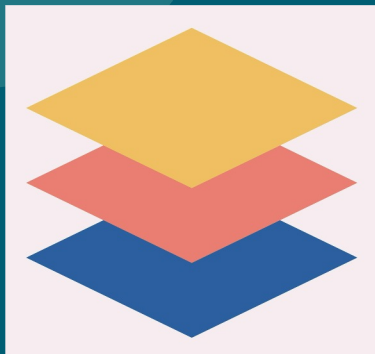
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Key Principles

- Deaths and serious injuries are unacceptable
- Humans make mistakes
- Humans are vulnerable
- Responsibility is shared
- Safety is proactive
- Redundancy is crucial

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Layers of Protection

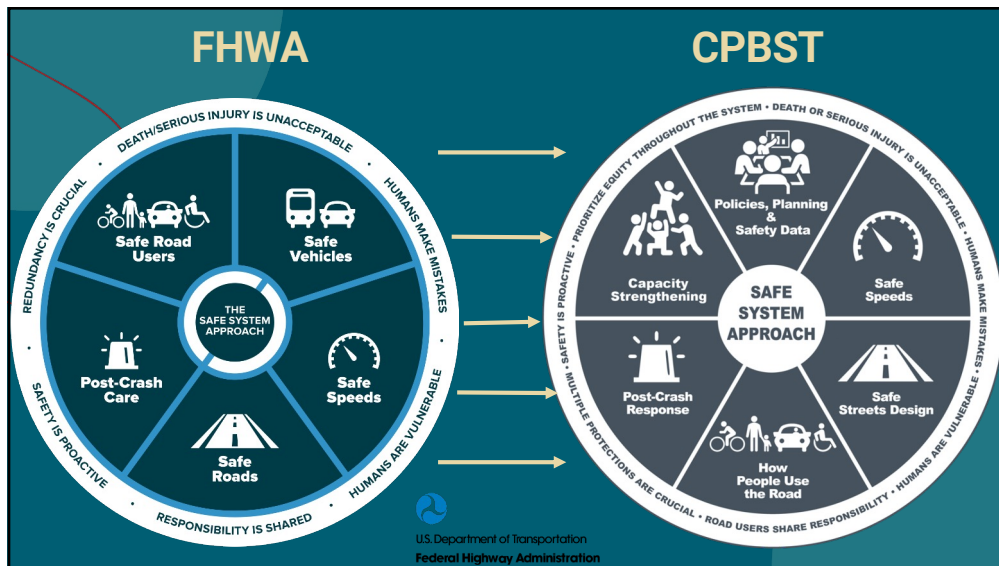


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The Traditional Approach vs. Safe System Approach

Prevent crashes	→	Prevent death and serious injuries
Improve human behavior	→	Design for human mistakes
Control speeding	→	Reduce system kinetic energy
Individuals are responsible	→	Share responsibility
React based on crash history	→	Proactively identify and address risks

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- ## CPBST Safe System Elements
- **Safe speeds:** Reduce driver speeds to reduce injury severity for all road users.
 - **Safe streets design:** Design roads that are people-focused and reduce conflict between users.
 - **How people use the road:** Create opportunities for and expand awareness of safe walking, biking, and rolling.

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CPBSP Safe System Elements cont'd

- **Post-crash response:** Provide physical and emotional care to crash survivors and their families.
- **Capacity building and empowerment:** Empower communities to claim ownership of safe streets and public spaces.
- **Policies, planning, and safety data:** Create systems change at the local and statewide policy level.

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Potential Safe System Strategies

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Community Walk and Bike Ride

- An event that encourages residents to walk or bike together and explore local themes, such as art, music, history, and architecture.
- **Elements:** How people use the road; Capacity building and empowerment.



Image source: Santa Ana Active Streets Coalition

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Shade Trees

- Provide shade, decrease noise pollution, and improve mental well-being in a community.
- **Elements:** Safe streets design; How people use the road.



Image source: Intersections South Los Angeles

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Sidewalks

- A separated place to walk outside of the road.
- **Elements:** Safe streets design; How people use the road; Policies, planning, and safety data.



Image source: [All Children Thrive, Bakersfield, CA](#)

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Bike Lanes

- A section of a roadway exclusively for people biking or using a scooter, which reduces conflicts between people walking, biking, and driving.
- **Elements:** Policies, planning, and safety data; Safe streets design; How people use the road.



Image source: [StreetsBlog LA, Pomona, CA](#)

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Raised Crosswalk

- A type of speed table that brings the roadway to the same level as the sidewalk.
- **Elements:** Safe speeds; Safe streets design; How people use the road; Policies, planning, and safety data.



Image source: San Francisco Municipal Transportation Agency

Safe System Toolkit

2022-2023 Community Pedestrian and Bicycle Training Tool Kit

Safe System Approach to Road Safety:

The Safe System Approach focuses on slowing down, with the understanding that humans make mistakes and bodies and fragile. It focuses on reducing that and serious injuries when a crash occurs through ways a street is designed, the ways we manage our streets and their infrastructure, and engaging and educating communities to work to road street safety.

The Community Pedestrian and Bicycle Safety Training (CPBST) team adopted the **California Safety Administration (CSA)** and **California Department of Transportation (Caltrans)** to make them relevant for the communities we work with. Specifically, we include community engagement as a key element in a Safe System, and make equity a central component. We also acknowledge the key role of collaboration between transportation professionals and the communities they work with in order to create safe streets for all.

Safe System Approach, the CPBST team:

1. Review pedestrian and bike crash data and safety strategies.
2. Facilitate walking and biking assessments.
3. Strategize with communities to define specific pedestrian and bike safety goals and activate road steps.
4. Engage communities to strengthen collaborations to implement specific walking and biking safety recommendations.

We've created a table of potential community improvements that can help you create a safer community with the Safe System Approach. There are many ways to go to a healthier and walkable community, the table is just a starting point.

Based on table of potential community improvements, we've tagged them with keywords we found relevant to the specific strategy. These keywords include:

- **Community Engagement/Partnerships:** offers opportunities to engage with the community and create partnerships with community based organizations, local businesses, and others.
- **Data:** strategies that collect, analyze, and provide data by reports.
- **Encouragement and Education:** encourage communities to walk, bike, or use public transportation and/or provide educational opportunities to learn the safety, walk, bike, or use public transportation.
- **Infrastructure:** infrastructure specific and change the layout of the roadway.
- **Safe Routes to School (SRTS):** encourage and support SRTS efforts in communities.
- **Speed Management:** help manage speeds on the roadway to make communities safer for those walking and biking.
- **Vulnerable Populations:** create safer streets and communities for our most vulnerable populations such as seniors, children with disabilities, and others.

About the CPBST

The Community Pedestrian and Bicycle Safety Training (CPBST) program is a voluntary active transportation and community engagement program of UC Berkeley SafeREC and California State of San Francisco. It aims to help communities improve their walking and biking conditions. The program is a partnership between transportation professionals and the communities they work with in order to create safe streets for all.

California Walks | Berkeley SafeREC | CTS | WALK

Funding for this program was provided by a grant from the California Office of Traffic Safety, through the National Highway Traffic Safety Administration.

Community Benefit Agreement

A legally enforceable contract between a community coalition and the developer of a proposed development project. In exchange for public support of the project, the developer contributes benefits to the local community, such as pedestrian and bike safety improvements and open green space.

When to Use: To improve the safety of people walking and biking or increase open green space for the community at or near new development projects.

Community Engagement/Partnerships, Encouragement and Education, Infrastructure, Speed Management, Vulnerable Populations

Community Coalition

A variety of partners in a community that work together to improve active transportation safety. This can include work in affordable housing and active transportation, land use solutions, and public transportation investments.

When to Use: To provide a well-rounded, safe community for those living in and traveling to it.

Community Engagement/Partnerships, Data, Encouragement and Education, Infrastructure, Safe Routes to School (SRTS), Speed Management, Vulnerable Populations

Community Liaison/Promotores Campaign

A program that trains community residents to become public health workers. They can teach their neighbors advocacy skills to promote safe walking and biking behaviors among their communities.

When to Use: To promote safe walking and biking in communities, by teaching the people in the community themselves to become advocates.

Community Engagement/Partnerships, Encouragement and Education, Safe Routes to School (SRTS), Speed Management, Vulnerable Populations

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CPBST Workshop Planning

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CPBST Workshop: Logistics

- **Workshop Date:** June 23, 2024
- **Time:** Workshop will be from 9am to 11am; optional walk / bike assessment from 11am to noon
- **Location:** MCL Community Garden

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CPBST Workshop: Outreach

- Let's start first by reviewing our Workshop Outreach document
- What community members, institutions, organizations, etc. would we like to attend our workshop?
 - The offices of Councilmember Damon Alexander and Mayor Helen Tran have reached out to provide support for the Workshop. What asks do we have for them?
- Who has connections to each identified individual or organization?
- What support do you need from the Project Team in order to conduct outreach?

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Next Steps

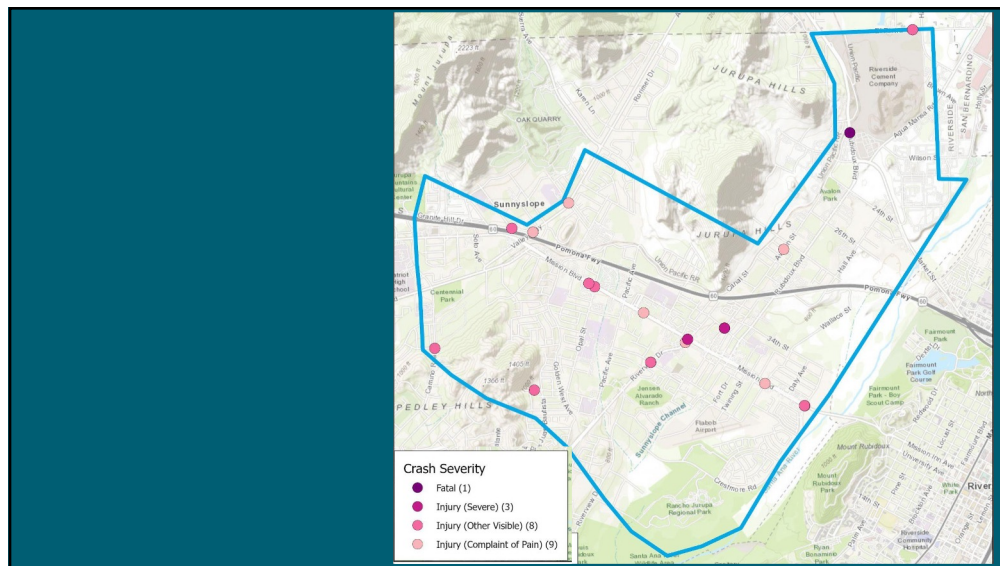
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Questions?

For more information, email Adriana Valencia,
Community Programs Coordinator with CalWalks at
adriana@calwalks.org.

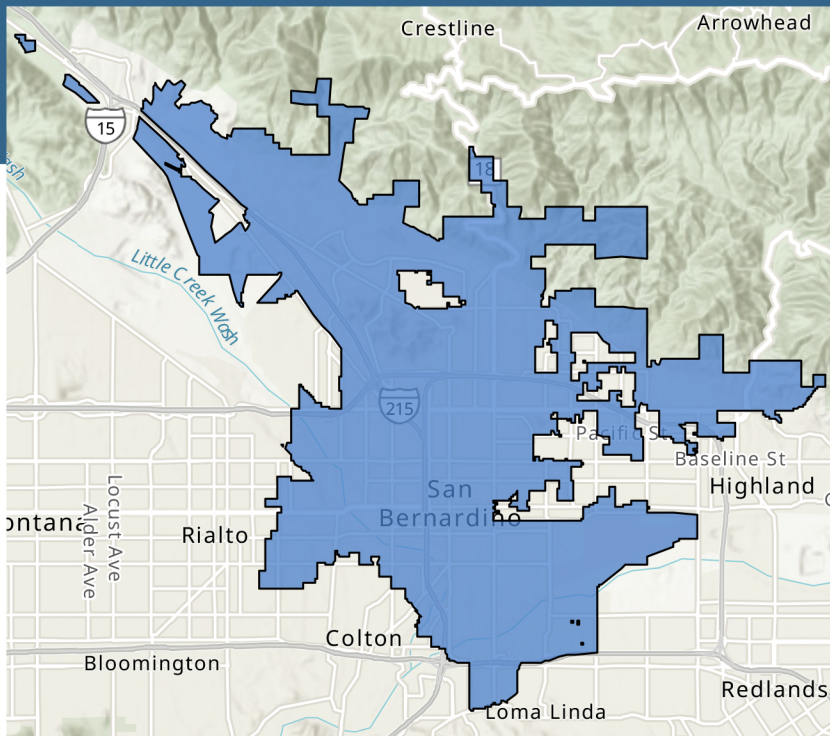
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This presentation was prepared in cooperation with the California Office of Traffic Safety (OTS). The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of OTS.



San Bernardino

Community Pedestrian and Bicycle Safety Program



Key Facts



31%

Households with 1+ Persons with a Disability

Vulnerable Population



11%

Population 65+



15%

Households without a vehicle



19%

Households Below the Poverty Level

Commute Profile



2%

Took Public Transportation



13%

Carpooled



1%

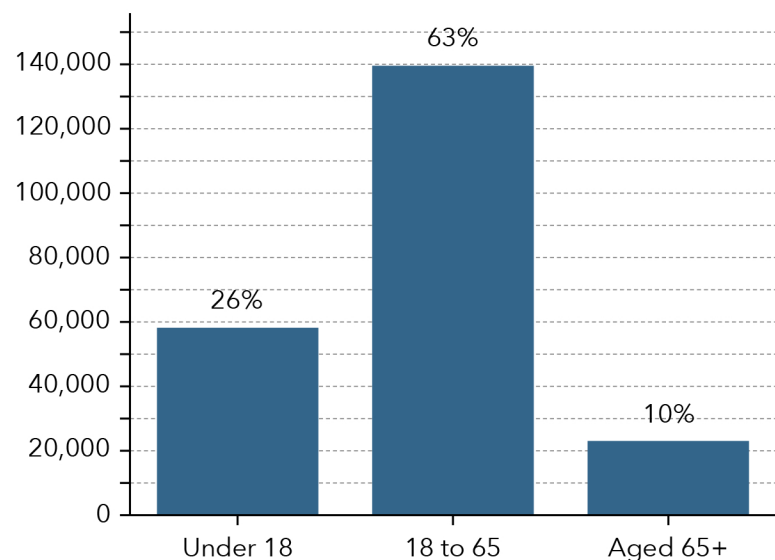
Walked to Work



0%

Bike to Work

Population by Age



2024 Race and ethnicity (Esri)

The largest group: Hispanic Origin (Any Race) (70.23)

The smallest group: Pacific Islander Alone (0.40)

Indicator ▲	Value	Diff
White Alone	23.03	-10.62
Black Alone	11.71	+3.44
American Indian/Alaska Native Alone	2.32	+0.37
Asian Alone	4.28	-4.77
Pacific Islander Alone	0.40	+0.05
Other Race	41.35	+11.61
Two or More Races	16.91	-0.08
Hispanic Origin (Any Race)	70.23	+14.63

Bars show deviation from San Bernardino County

Household Income (2021)		
Median Household Income	\$62,874	
Household Income less than \$15,000	7,108	11%
Household Income \$15,000-\$24,999	4,963	8%
Household Income \$25,000-\$34,999	5,895	9%
Household Income \$35,000-\$49,999	7,498	12%
Household Income \$50,000-\$74,999	10,678	17%
Household Income \$75,000-\$99,999	9,609	15%
Household Income \$100,000-\$149,999	10,301	16%
Household Income \$150,000-\$199,999	4,417	7%
Household Income \$200,000 or greater	3,374	5%

**Thank you for your interest in the
Community Pedestrian and Bicycle
Safety Program.**

For more information, please visit:

<http://bit.ly/CPBSP>.

For questions, please email safetrec@berkeley.edu.

Visit SafeTREC on the Web at

<https://safetrec.berkeley.edu/>.