

SPEED
LIMIT
20

SPEED MANAGEMENT PLAN



HAY UN NUEVO
**LÍMITE DE
VELOCIDAD**

20

20 MILLAS POR HORA
EN DIVISIDERO

**LAS VELOCIDADES SEGURAS
SALVAN VIDAS**

VISIONZERO.SF.org



Acknowledgement & Thank You

Every traffic death is a life cut short, leaves loved ones devastated, and is a tragic loss to our community.

There are many people who survive traffic injuries, and their lives are forever changed. These crashes were happening even before Vision Zero was adopted in 2014 and changed how San Francisco approached street safety.

This Speed Management Plan is dedicated to the people who have been impacted by traffic violence on San Francisco streets.

Thank you to our families, members of the public, advocates, decision makers, and staff who push us every day to make street safety a priority and stop traffic deaths in San Francisco.

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1. Defining the Problem & Approach

About 30 people die and more than 500 are severely injured while traveling on San Francisco streets every year. These deaths and injuries are unacceptable and preventable, and San Francisco is committed to stopping them. The loss to our society is not just in dollars and cents, but in long-term recovery, permanent disability and the premature deaths of these people, as well as the impact to their families.

Speeding is the leading cause of severe and fatal crashes in San Francisco.

The National Highway Traffic Safety Administration (NHTSA) estimates that these crashes cost more than \$29 billion every year across California. Studies show that speeding gives drivers less time to react and brake when someone is crossing the street, and reduces a person's ability to survive a crash. **We need streets that move people who are walking, biking, or taking transit - not just those in cars. And we need everyone driving to slow down.**

These are the reasons why San Francisco's 2021 Vision Zero Action Strategy committed to:

Develop a comprehensive speed management plan to slow vehicle speeds on the High Injury Network using speed limit reductions (authorized by AB43), changing the timing of traffic signals, installing traffic calming devices, and changing travel lanes (road diets). The Plan includes education, outreach, and high visibility enforcement to slow speeds.*

This Speed Management Plan meets this Action Strategy commitment and supports Vision Zero SF, the City's commitment to end traffic deaths. The plan describes the tools San Francisco will use to slow speeds and save lives, prioritizing safety for children, seniors, people with disabilities, and people of color.

There are many reasons for the speeding issue. The problem can be made worse by many things: a road's design, risk-taking behavior seen as acceptable, and vehicle design. Vehicles that are heavier and accelerate rapidly are more difficult to control. Solutions for speeding must also address these many causes. The Speed Management Plan organizes the various tools and programs to slow speeds in San Francisco and make crossing the road safer into the following three sections:

1. **Where We're At:** Existing Tools and Programs
2. **Where We're Going:** New or Expanded Tools and Programs
3. **What's Still Needed:** Future Tools and Programs

The plan includes best practices from peer cities that have adopted Vision Zero within the US and internationally, an inventory of effective tools the City has identified, as well as data on severe injury and fatal crashes mapped on the High Injury Network. These tools and programs are most effective when used across entire corridors or neighborhood-projects. Our tools and programs also maximize their benefit when implemented in combination with one another.

2. Where We're At: Existing Tools

Strategies for Slower Speeds



Quick-Build Program

The SFMTA's Vision Zero Quick-Build Program is an effort to quickly make pedestrian and bicycle safety improvements on the Vision Zero High Injury Network to slow speeds and create safer streets. Quick-Build projects make road changes that can be adjusted or even reversed. Unlike major capital projects that may take years to put in place, quick-build projects are finished in weeks or months and are evaluated in the 24 months after construction. Typical Quick-Build type improvements include paint, traffic delineators, street signs, parking and loading adjustments, traffic signal timing, or transit boarding islands. Quick-Builds can be done while we still work on broader, long-term street changes, often laying the groundwork for future major capital projects.

Traffic Calming Programs

Traffic calming enhances neighborhood livability by reducing vehicular traffic impacts on residential streets. Simple, inexpensive physical tools such as speed humps, raised crosswalks, and median islands are effective at creating safer and more comfortable streets for people walking, biking, and driving.

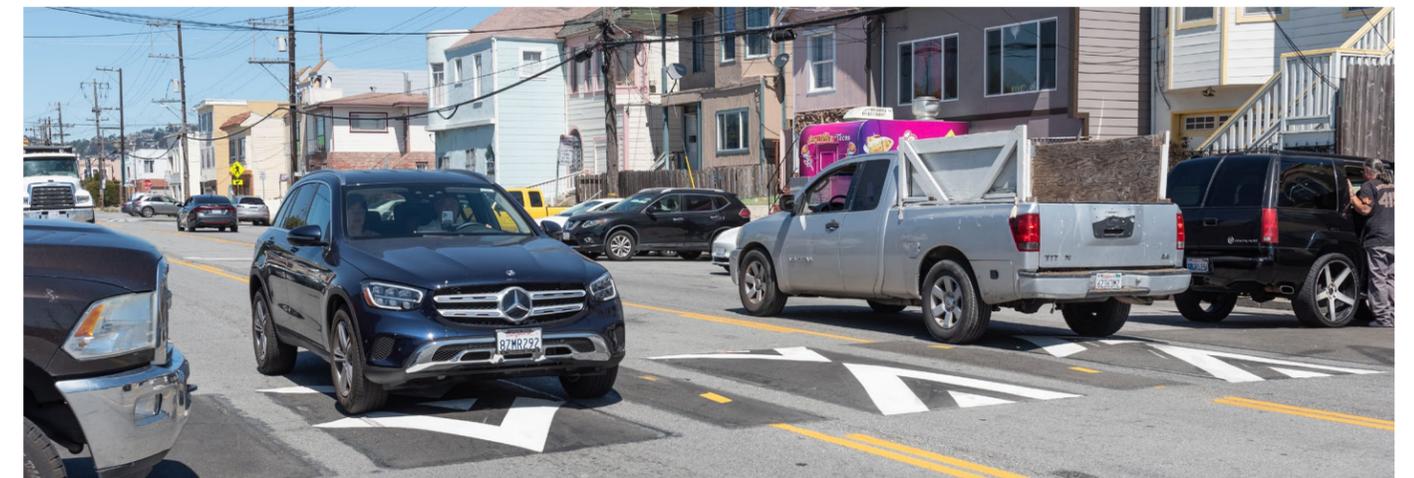
Speed bumps recently installed at 10 different residential streets as part of the Excelsior Neighborhood Traffic Calming project reduced average speeds by 13% and higher speeds by 18%. Raised crosswalks and other traffic calming tools as part of the Golden Gate Park Traffic Calming project increased drivers stopping for people in the crosswalk by 21% and brought close-call crashes down to zero.

On average, about 200 traffic calming tools are installed each year citywide. The three main ways where locations are selected are through the Residential Traffic Calming Program, the Proactive Traffic Calming Program, or through the school-based engineering program.

Residential Traffic Calming Program is an application-based program developed with residents to address mid-block speeding on San Francisco's residential streets.

Proactive Traffic Calming Program prioritizes neighborhoods where seniors and people with disabilities are more at risk for severe or fatal traffic injuries.

Schools Engineering Program works to slow speeds by installing about 30 speed bumps a year in 15 mph school zones throughout the city.



“Road Diets”

“Road diets” change vehicle travel lanes to lanes designed to move people walking, biking, or taking transit. Road diets are proven to be effective and are used nationally to slow speeds.



In 2019 the Brannan Street Safety project reconfigured Brannan Street between Division Street and the Embaracero from four travel lanes to three with left turn pockets. Other safety improvements included bike lanes, intersection improvements, and traffic signal upgrades. As a result of this work, Brannan Street is no longer identified in the 2022 High Injury Network.

In 2020 the California Street Safety Project converted California Street between Arguello and Park Presidio from four travel lanes to three with a new center lane for left turns. Other improvements included intersection daylighting, continental crosswalks and more time for people to cross the street at traffic signals. While the daily number of vehicles and travel speeds remained similar, this road diet decreased traffic crashes by 64% and helped decrease transit travel times.



In 2021 the SFMTA implemented the first neighborhood wide 20 MPH zone in the Tenderloin, where every street is on the High Injury Network.



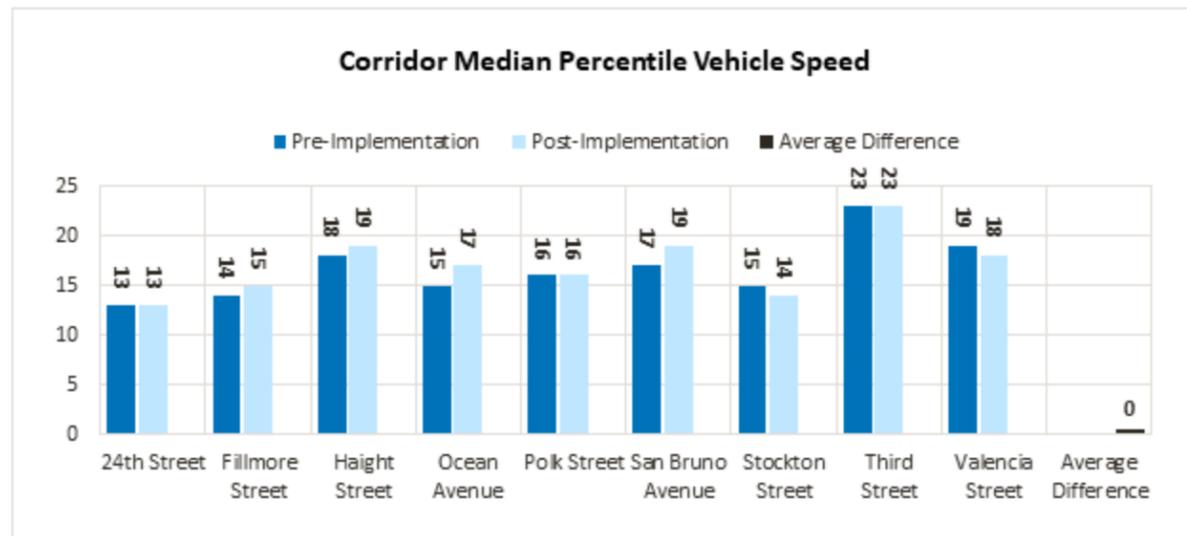
Speed Limit Reductions

Children and older adults are some of the most vulnerable to speed-related crashes and injuries. Addressing vehicle speeds where they are next to or crossing streets creates a safer, more walkable, bikeable, and livable environment. School and Senior Zones encourage slow speeds (15 mph) where there are high numbers of children or seniors. In 2011, San Francisco was the first large city in California to lower speeds to 15 MPH at about 200 public and private schools - 100% of schools eligible under state law. Senior Zones were established in 2020 to lower speeds to 15 mph near some senior living facilities and centers.

Effective January 2022, California Assembly Bill 43 (Friedman) allows cities to lower speed limits on business activity district corridors. The speed limit will be reduced from 25 to 20 MPH along these high traffic streets where at least half of the property uses are dining or retail. San Francisco leads the state in implementing these new 20 MPH business activity districts. Speeds in twenty-eight corridors were lowered in 2022, over 20 miles and installing more than 300 signs. Education and community outreach after the speed limit changes support compliance with the new speed limits in those districts.

Evaluating Speed Limit Reductions

Evaluation of these new 20 MPH business activity districts looked at before and after data from nine (9) corridors. The table below shows for average speeds the majority of drivers were already going at or below the new posted speed limit of 20 MPH.

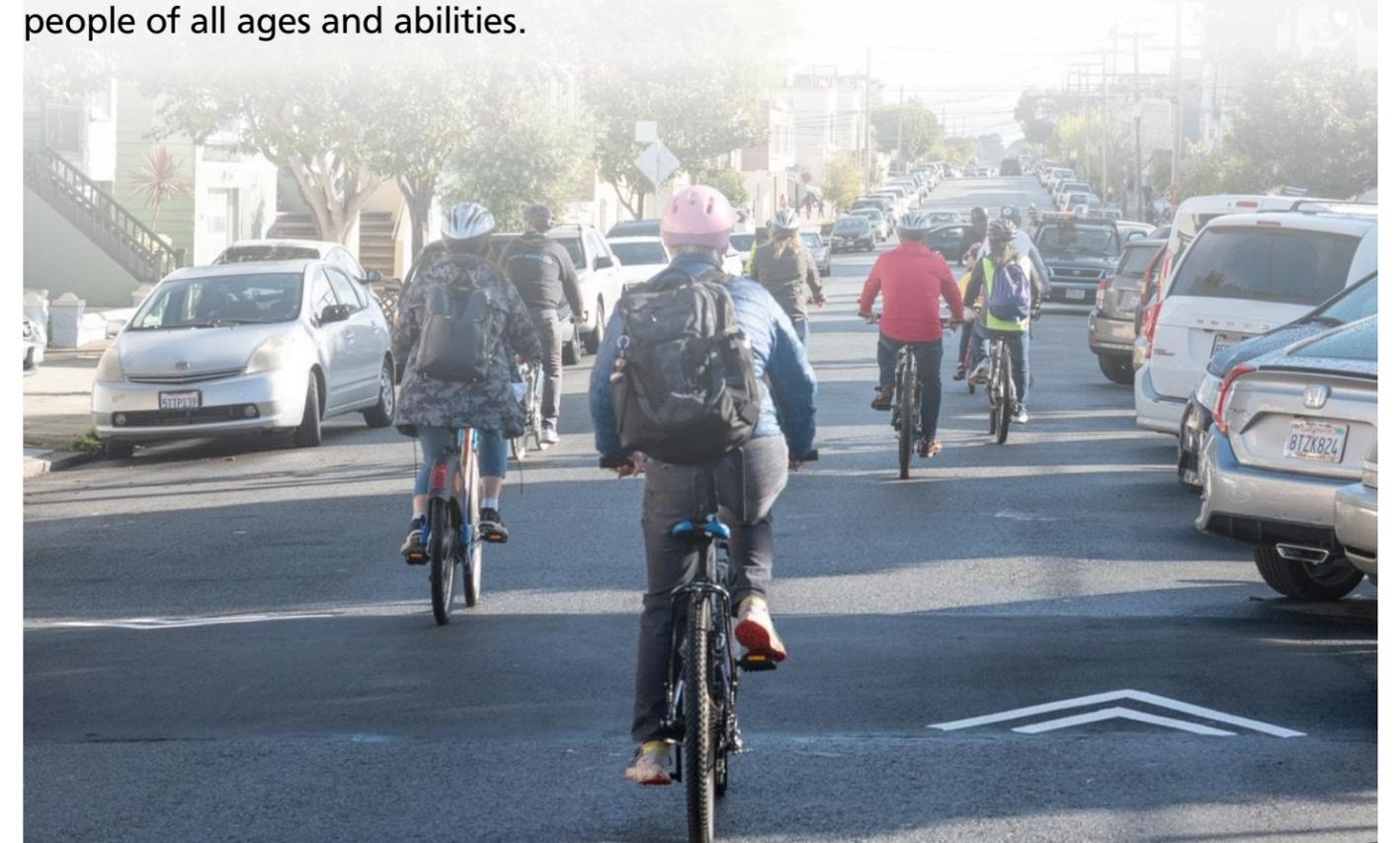


For corridors like Third Street that have higher average speeds both before and after this evaluation, additional design changes beyond speed signs are needed to slow speeds. The evaluation also looked at excessive speeding (over 30 MPH) and found no change in before and after data. This means that the new posted speed signs are an appropriate treatment for these commercial corridors.

The Active Transportation Network

One of the city's programs in response to COVID helped expand the active transportation network. SFMTA created safe, comfortable, low-vehicle-traffic routes on residential streets through the SFMTA's Slow Streets Program. After becoming a Slow Street, streets have on average 35% less traffic and 14% lower vehicle speeds. As a result, the number of crashes (in all modes as well as with people walking or bicycling) have gone down 36% on Slow Streets, and three out of four residents surveyed said they felt safer on the street after it was a Slow Street.

JFK Promenade through Golden Gate Park, and the Great Highway along Ocean Beach, are more examples of car-free streets that encourage people to choose low-carbon ways to travel and help build community. Growing a connected network of streets that are safe and welcoming creates places to walk, bike, and roll for people of all ages and abilities.



Strategies for Safer Crossings



High Visibility Crosswalks

Upgrading the crosswalks in the High Injury Network helps increase visibility and reduce the vulnerability of road users like people walking and biking. So far, more than 90% of crosswalks on the High Injury Network have been upgraded to high visibility.

Daylighting

Daylighting creates safer crossings using red curb paint to prevent cars parking near the intersection. This helps drivers see more of the crosswalk so they can stop for people walking or biking. In the Tenderloin, 80 intersections were daylighted in 2015, resulting in 14% fewer crashes reported. To date, all of the 2017 High Injury Network has been daylighted. This work will continue now that additional streets have been identified in the 2022 High Injury Network.

Traffic Signal Timing

A range of traffic signal improvements are being upgraded to create safer crossings on the High Injury Network and include:

Slower Walking Speeds give people in the crosswalk more time to cross the street and reduce side street delay. In 2018, San Francisco adopted local policies for slower walking speeds that exceed federal guidance. Increasing the crossing time at intersections to 3.0 feet per second gives people walking of all ages and abilities the time they need to cross safely and comfortably. To date, 83% of intersections on the High Injury Network have slower walking speeds.

Leading Pedestrian Intervals (LPI) give people in the crosswalk a head start before drivers can move and have reduced pedestrian-vehicle crashes by as much as 60%, according to NACTO. To date, 57% of intersections on the High Injury Network have LPIs.

Accessible Pedestrian Signals (APS) communicate when to cross the street in a non-visual manner, such as audible tones, speech messages, and vibrating surfaces. These help people with disabilities to cross the street safely. SFMTA installs APS at all new traffic signals and at signalized intersections undergoing a major signal repair. 40% of intersections on the High Injury Network now have APS.

Pedestrian Countdown Signals (PCS) show how much time is left for people to cross the street before the light changes. 95% of intersections on the High Injury Network now have PCS.





Complementary Strategies

Education and Outreach

Education and outreach to the community are cost-effective, long-term strategies. Together they raise public awareness of the problem, build support for solutions, and improve driver behaviors. Public education campaigns and outreach projects have been included since the beginning of our commitment to Vision Zero, to address the most dangerous driving behaviors of speeding, not stopping at crosswalks, or crashes when turning. Public education campaigns and outreach are especially effective when paired with other strategies.



The Safe Routes To School (SRTS) program was created to make walking, bicycling, and taking transit and bicycling to school safer and more accessible for students children of all abilities, and to increase the number of how many children students walking, bicycling, taking public transit, and carpooling, while decreasing the number of single-family car trips to school are driven in carpools. SRTS programs enhance students' children's health and well-being and improve the daily life of all our community members. SFMTA conducts administers San Francisco's Safe Routes To School program to promote safety and Vision Zero near schools and with youth and their families.

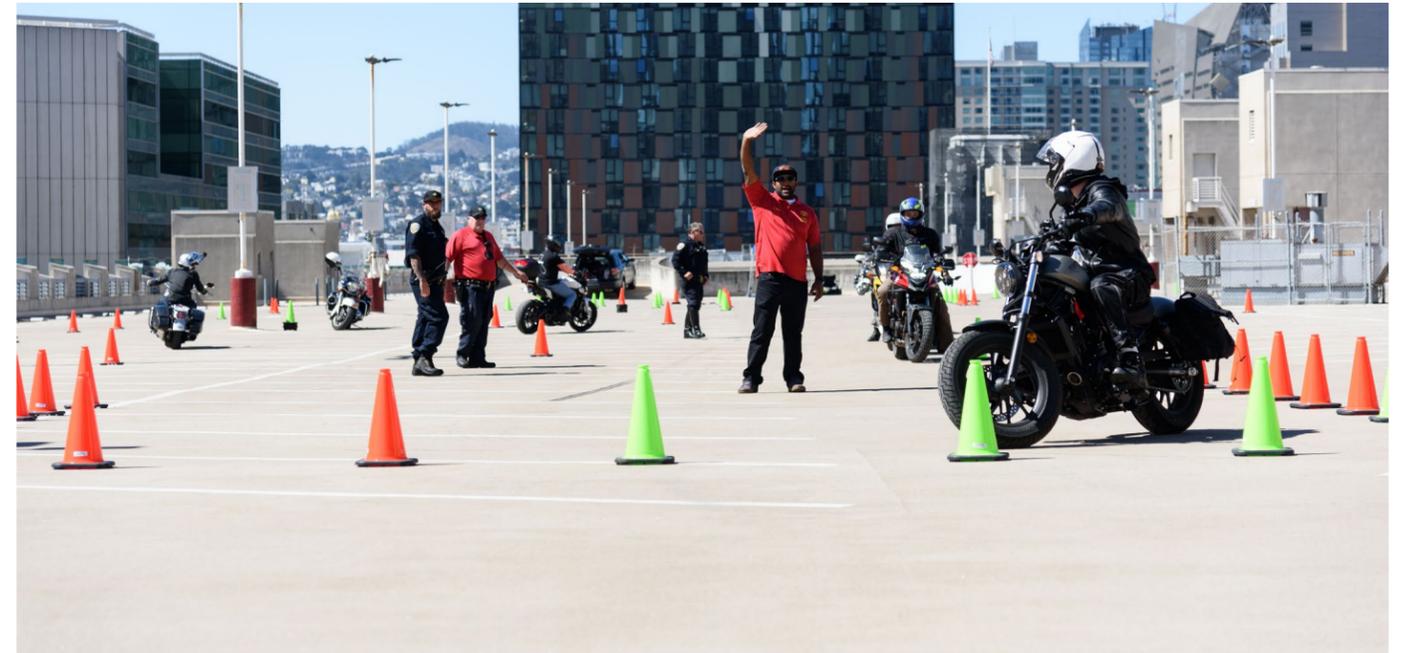
High Visibility Enforcement

Enforcement of dangerous driving behaviors needs to be done in an equitable manner that does not harm vulnerable communities and road users. High visibility enforcement works to transparently curb dangerous driving behaviors and reduce bias in citations. Speeds were slower but short-term during a Safe Speeds campaign with the Police Department and Public Health Departments as partners for high visibility enforcement. Evaluation of this campaign recommends regular high visibility enforcement to sustain lower vehicle speeds over time.

Community Partnerships

The SFMTA awarded six grants to community organizations serving historically underserved populations with the Safety – It’s Your Turn campaign. These groups took the information to their communities and expanded outreach to monolingual food-delivery drivers, people living with blindness or low visibility, teen drivers, and other community groups not conventionally associated with transportation issues (such as arts organizations, senior living groups, the YMCA) but are in proximity to or along the High Injury Network.

The Tenderloin Community Benefit District (TLCBD) and the San Francisco Bicycle Coalition partnered together to launch Tenderloin Community Alternatives to Policing (TLCAP) with funding support from the SFMTA in September 2020. This campaign works with residents to explore community-based alternatives to traditional traffic enforcement in the City’s neighborhood with the most traffic crashes. The campaign created several recommendations for alternative enforcement: 1) Develop compliance plans for street safety projects using existing, non-enforcement ways to change behavior (such as quick-builds, 20 MPH/No Turn on Red); 2) Pay to teach residents about models to monitor for traffic safety (Such as TLCBD’s Safe Passage); 3) Pay local community groups to go to small businesses, monolingual, and “Single Room Occupancy” residents in-person.



Safety Trainings

Motorcycle riders are only 2% of road users, but account for 20% of traffic deaths in San Francisco. Riders are also vulnerable to severe injury. The SFMTA partnered with the Department of Public Health, the Police Department, and motorcycle groups to develop a Motorcycle Safety Program. This annual program offers free Motorcycle Safety Skills Closed-Course Trainings focused on low speeds and control. The program was the first of its kind in the nation.

3. Where We're Going: New & Expanded Tools

Strategies for Slower Speeds



High Injury Network Quick-Build Toolkit

The High Injury Network will have a comprehensive assessment in Spring 2023. Findings will recommend appropriate Quick-Build projects and spot improvements along the remaining 50 miles of the High Injury Network. This assessment will help fulfill the Vision Zero Action Strategy commitment to complete Quick-Build improvements on the full High Injury Network by the end of 2024.

Status: High Injury Network Quick-Build Toolkit consultants are completing recommendations. The SFMTA is securing funding for 2023 Quick-Build projects.

Proactive Traffic Calming

The Vision Zero Proactive Traffic Calming Program will focus on Visitacion Valley and Portola neighborhoods. The Department of Public Health identified priority areas and corridors where pedestrian injuries to seniors and people with disabilities were very high. A focus on speed humps and other low-cost traffic calming measures to slow speeding vehicles along residential streets will be prioritized in design and construction.

Status: Construction of Visitacion Valley and Portola Traffic Calming Project will begin Spring 2023.





Speed Radar Signs

Speed Radar Signs are electronic signs that measure and display the speed of approaching vehicles. In the past few years, Speed Radar Signs have been installed in multiple locations throughout the city to help reduce vehicle speeds.

Status: *Through the Safe Streets and Roads for All Grant awarded in February 2023, the SFMTA will install up to five speed radar signs in the Western Addition neighborhood.*

Speed Limit Reductions expanded

Speed reductions under Assembly Bill 43 will allow cities to lower speeds by 5 mph on streets designated as “safety corridors” beginning in 2024. The state is developing criteria for defining safety corridor eligibility. San Francisco is contributing to this state process. This will give us the flexibility to lower speeds on streets with the highest number of severe injuries and fatalities.

Status: *San Francisco along with other California cities and partners are continuing to work with state legislators on defining “safety corridor” for the 2024 speed reduction work.*

The Active Transportation Network expanded

Expanding a connected network of car-free or low-vehicle streets that are safe and welcoming places for people to walk, bike, and roll help slow speeds and reduce conflicts between motorists and people.

A permanent Slow Streets program was authorized by the SFMTA Board of Directors in December 2022 and includes 17 corridors. To enhance community building, the SFMTA will also incorporate its existing Play Streets. This will allow neighbors to set up regular block closures to enjoy their neighbors at gatherings on their street.

Status: *Finalizing evaluation of each corridor’s current conditions for existing volumes and speeds to inform future design treatments. Design work for an additional Slow Street, Cayuga Avenue, is being developed with the community and will go the SFMTA Board for approval in March 2023.*

Slow Streets in the Sunset is transitioning to Sunset Neighborways. Between December 2021 and March 2022, the SFMTA gathered extensive feedback on the proposed Sunset Neighborways. The goal is to designate and design several residential streets as preferred biking and walking routes.

Status: *Project team is going back to the community to do design outreach and share project progress and next steps for the proposed residential street designs.*

The Active Communities Plan outreach began in January 2023 and over the next two years will develop a new plan for active mobility. This new plan will include all devices that can legally be used on the active transportation network and will pay special attention to the needs of equity priority communities such as people living with disabilities, monolingual communities, youth, and women/trans/non-binary people.

Status: *Citywide outreach is planned to complete in January 2024. The final Active Communities Plan is scheduled for May 2024.*



Strategies for Safer Crossings

Western Addition Traffic Signal Upgrades



The SFMTA will make major traffic signal upgrades in the Western Addition neighborhood, including larger signal heads, mast arms for better visibility, pedestrian signal improvements such as PCS, APS, LPIs, flashing beacons, and ADA-compliant curb ramps. Funding will come through local grants, Prop K, Go Bonds, and the Safe Streets and Roads for All federal grant.

Status: Construction of Phase I of traffic signal upgrades including PCS, APS, signal visibility, flashing beacons, and radar speed signs to begin in March 2023. Finalizing Safe Streets and Roads for All grant agreement for Phase II of traffic signal upgrades.



Left Turn Safety Expansion

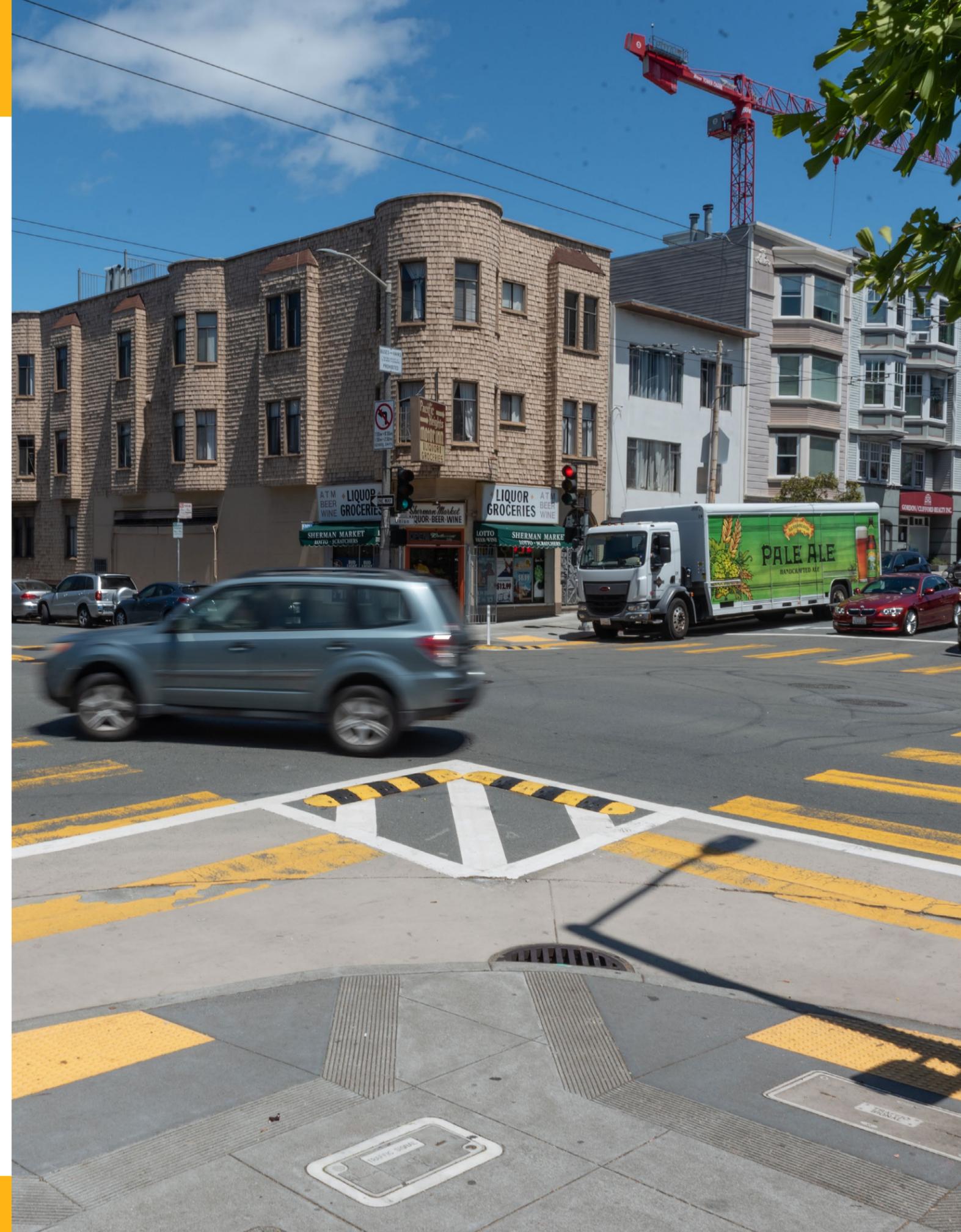
In 2021, the SFMTA tried calming treatments for left turn traffic at seven high-crash intersections. The designs were paired with a comprehensive “Safety—It’s Your Turn” public education campaign. It resulted in a 17% reduction in lower speeds (1.7mph slower) and reduced the likelihood of a car turning left faster than 15 mph by 71%. As a result of these promising results, the SFMTA will expand left-turn treatments to another 35 intersections throughout the city.

Status: *Left turn safety treatments installed at seven (7) locations in February 2023. Analyzing eligibility list for next set of intersections.*

Red Light Camera Expansion

The SFMTA’s **Automated Enforcement Program** uses an automated camera network to enforce red-light running and illegal right turns. The SFMTA’s combined automated enforcement, engineering, and education efforts have reduced 66% citywide injury crashes resulting from red-light running by 66% between 1996 (when the program started) and 2017. All other effective traffic safety measures are considered first before considering automated enforcement due to the high cost of automated cameras. The SFMTA is expanding the Automated Enforcement System and will install new equipment at eight intersections.

Status: *Working with red light camera consultant on design. Finalizing curb ramp scope with Public Works. Will advertise for installation in 2024.*



4. What We Still Need: Tools Needed for the Future

Strategies for Slowing Streets



Speed Safety Cameras

Automated Speed Enforcement is a proven street safety tool used in more than 150 U.S. cities. Staten Island, New York reported 70% fewer traffic deaths and injuries where speed cameras are installed. Portland, Oregon experienced a 46% decrease in traffic deaths and 85% decrease in excessive speeds after implementing an automated speed safety program. California is one of a handful of states that prohibits this life-saving technology.

Speed safety cameras are a tool that can slow drivers down, enforce speed limits, and improve safety for all road users. Speed safety cameras use fixed or mobile cameras to capture images of vehicles moving dangerously over the speed limit. Speed safety cameras have been proven to deter illegal speeding and provide consistent, predictable, and unbiased speed limit enforcement.

Vehicle Weights and Size Restrictions

Research has shown larger, heavier vehicles involved in crashes have more deadly results, especially for people walking and biking. A 2010 meta-analysis by E. Desapriya et. al. in the Journal of Traffic Injury Prevention show light truck vehicles pose a greater risk of pedestrian injury or death while compared to smaller sedan cars. Even more striking is Justin Tyndall's 2021 article in the Economics of Transportation Journal, which suggests replacing light trucks to standard cars would have saved over 8,000 pedestrians lives over the 10-year crash analysis in the United States. While the SFMTA has no regulatory authority over vehicle size and weight, we are very interested in supporting new vehicle regulations that prioritize safety.



Speed Governors

Speed governors, sometimes called speed limiters, are a tool that links GPS map data with a vehicle's camera to limit speeding. Current vehicle safety standards include blind spot warnings, lane departure warnings, or brake assistance. Including speed governors into car design features has the potential to prevent speeding. This would improve the safety of vulnerable people on the road such as people walking and biking.

5. Staying Accountable and Transparent

The SFMTA will continue to be accountable and open about how the speed management plan is put into place through publicly available data and public meetings.

Data Tracking and Evaluation

Safe Streets Evaluation Report: an annual evaluation of bike, pedestrian, and traffic calming projects

Severe Traffic Injury Trends Report: a biannual report updating Zuckerberg San Francisco General Hospital trauma registry data gathered since 2011 on severe injury trends.

Traffic Fatalities End of Year Report: a yearly report updating fatalities using Zuckerberg San Francisco General Hospital data and San Francisco Police Department data.

High Injury Network Refresh: last updated in 2022 with 2017 – 2022 police and hospital crash data.

TransBASE traffic crash dashboard and **Vision Zero Safe Streets** dashboard will be updated quarterly.

Progress Updates to the Public

Regular updates to the **SFMTA Board of Directors and Community Advisory Committee**

Regular updates to the **TA Commission and Community Advisory Committee**

Quarterly meetings of the **Vision Zero Task Force**

For more information about the Vision Zero SF, visit

[VisionZeroSF.org](https://www.visionzerosf.org)



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