FEHR PEERS

Memorandum

Date: June 27, 2025

To: Jennifer Donlon Wyant, Jeff Jelsma, City of Sacramento

From: Erin Ferguson, Sonia Anthoine, Yihao Zheng, and Daoud Farrah, Fehr & Peers

Subject: City of Sacramento Vision Zero Action Plan Update – Current Practices and Benchmarking Analysis

SA25-0279

The City of Sacramento is updating their 2018 Vision Zero Action Plan (VZAP) to provide a framework for the next five years to continue efforts in reducing fatalities and serious injuries on Sacramento's streets.

This memo summarizes the extent to which the City was able to implement the actions identified in the 2018 VZAP as well as a benchmarking assessment of existing plans, policies and practices. The purpose of this review and benchmarking is to identify opportunities for the City to change or refine existing policies and practices to make it easier to implement effective safety improvements.

The following section summarizes the extent to which the City was able to implement the actions from the 2018 VZAP. Subsequent sections provide an overview of the plans, policies, and practices reviewed and share the detailed benchmarking results.

Progress from the 2018 Vision Zero Action Plan

Fehr & Peers reviewed the 41 actions identified in the 2018 VZAP and identified which items City staff had completed, were in progress, and those not started. **Appendix A** includes mark-up of the action items for the 2018 VZAP with green indicating completed, yellow in-progress, and red not started.

The action items City staff were able to complete or have in-progress tended to be those where Transportation Planning (now Mobility and Sustainability Division) had purview and available staff time to influence and help advance with partners within the Department of Public Works (e.g., Traffic Engineering Design) as well as outside Public Works with external partners such as the Police Department.

Efforts such as initiating corridor studies for the top five corridors on the High Injury Network (HIN) and subsequent design and efforts related to making progress towards implementation (i.e., Action 2.2) are well underway with significant milestones completed. Similarly, Action 1.4 related to creating an online, interactive crash data map and website was completed as well as Action 3.1 related to public safety education campaign. In total of the 41 actions, 27 were completed or are in-progress.

In reviewing the 12 actions that were not completed, some required a lead and/or significant involvement from outside of Transportation Planning or outside of the Department of Public Works. Some of the incomplete actions also required changes at the State level, such as Action 3.11 related to lowering the legal blood alcohol level. Many of the incomplete or in-progress actions appear to need additional staff time to advance, clarity in who is best suited to lead it, and/or may be beyond City's immediate ability to influence.

Plans and Policies Reviewed

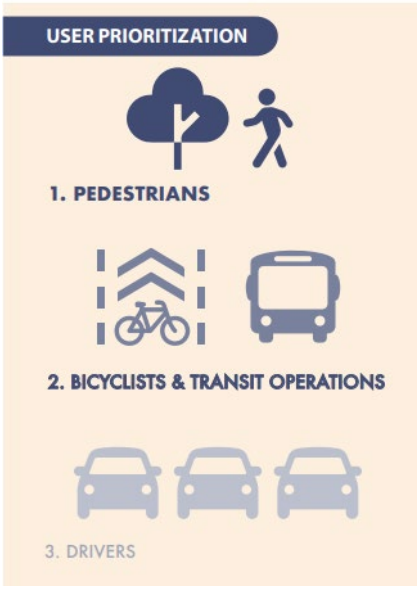
The following documents were reviewed to help inform the benchmarking assessment presented further below. The review focused on City level plans, policies, and practices. **Appendix B** summarizes regional, state, and federal level policies related to safety; these can be a helpful resource when considering cross-jurisdictional coordination and/or in framing support for advancing City practices.

Sacramento 2040 General Plan (February 2024)

The City of Sacramento General Plan guides how and where the City will grow over the next 20 years. As stated in the Mobility Element:

> *"The General Plan promotes mobility and transportation choices for all Sacramentans with an integrated approach to land use and transportation. Th[e] Mobility Element of the General Plan outlines a strategy for mobility and access improvements that enhance transportation safety, bolster connectivity, and shift trips to active modes, public transit, and high-occupancy vehicles to meet the needs of all users citywide. Equally, it recognizes the*

need to prioritize investments in disadvantaged areas with the highest need as part of the roadmap to a sustainable and equitable city" (page 8-1).



The Mobility Element asserts a user priority, with the mobility, comfort, health, safety, and convenience for people walking first, followed by people biking and riding transit, ahead of design and operations for people driving (Policy M-1.2). The Mobility Element also includes a map of street reallocations with street segments that have been identified as places where excessive street capacity could be repurposed as spaces to prioritize walking, biking, and transit use. Many of these locations, such as Northgate Boulevard, Marysville Boulevard, Franklin Boulevard, and Fruitridge Road were also identified as high injury corridors in the 2018 Vision Zero Action Plan.

Goal M-4 "A safer transportation system" includes policies to use complete streets principles, lower driving speeds and enforce speed limits, utilize a Vision Zero approach, reaffirm the 2027 Vision Zero goal, collaborate with stakeholders, train City staff, improve rail crossings, integrate goods movement, prioritize active transportation users and transit in detour facilities, and support safe routes to school programming.

The Mobility Element also covers system planning, design, and operations; active transportation; transit; and zero- and low-emissions vehicles.

City of Sacramento Vision Zero Action Plan (August 2018)

Sacramento's Vision Zero Action Plan, adopted in 2018, was one of the first in the nation. The stated goal of the VZAP was: "The City of Sacramento will work collaboratively in a data-driven effort to eliminate traffic fatalities and serious injuries by 2027."

The Plan uses historic crash data from 2009 through 2015 to develop a High Injury Network (HIN), which identifies the corridors with the highest levels of fatal and serious crashes for people walking, people biking, and motorists. The crash data was also used to pinpoint the factors contributing to traffic deaths and serious injuries. Every profile highlights a crash pattern the City identified as a priority to address:

- Unsafe Speed on Non-Local Streets
- Alcohol Involved
- 35+ MPH Streets
- 30+ MPH Streets - Bicycle Involved
- Broadside Crashes - Bicycle Involved
- Driver Making Left or Right Turns - Bicycle/Pedestrian Involved
- Crashes in Commercial Areas

- 60+ Year Old Pedestrians
- Pedestrian Crossing Outside of an Intersection or Crosswalk
- Pedestrian Crashes Near Transit Stops

The profiles are paired with safety countermeasures most relevant for the crash and location context. Together, these infrastructure, education, and enforcement-based countermeasures make up a toolbox of safety interventions the City will utilize to implement projects tailored to unique safety issues.

The plan also outlines a set of key actions to serve as a roadmap towards Vision Zero. The implementable actions directly address the Plan's 10 Crash Profiles and are organized into five action areas: 1. Vision Zero Program, 2. Street Design, 3. Dangerous Behaviors, 4. Access to Key Destinations, and 5. Vulnerable Road Users.

Vision Zero Progress Update (July 2023)

This 2023 Vision Zero Progress Update provides the following updates to the City's accomplishments:

- Launched "Our Safety is Homegrown" campaign with messages to walk, bike, and drive safely
- Reduced school speed zones to 15 miles per hour in areas around 115 schools in Sacramento
- Developed plans for first Top 5 priority corridors that include: Marysville Boulevard, El Camino Avenue, Broadway/Stockton Boulevard, South Stockton Boulevard, and Florin Road
- Implemented crosswalk safety improvements
- Secured funding from the Highway Safety Improvement Programs (HSIP) for spot safety improvements
- Updated the City's Pedestrian Crossing Guidelines

City of Sacramento Transportation Priorities Plan

The Transportation Priorities Plan (TPP) is the City Council adopted strategy for prioritizing transportation investments. The strategy is based on community values for improving air quality, climate, and health, providing equitable investment, providing access to destinations, improving transportation safety, and fixing and maintaining the system. The TPP helps the City prioritize $5 billion in transportation investments, outlines the prioritization process, and includes a list of the projects.

The latest prioritized list of transportation projects, adopted in November 2022, asserts that the City will prioritize projects that improve a Vision Zero Top 10 Injury Corridor, the Vision Zero High-Injury Network, or a Vision Zero School Safety Project.

City of Sacramento Neighborhood Connections Plan (February 2025) & Streets for People Plan (Draft)

The City of Sacramento's Active Transportation Plan is organized into two plans: the Neighborhood Connections Plan and Streets for People Plan. The Neighborhood Connections Plan, adopted in February 2025, provides a framework for building and maintaining a comfortable and accessible neighborhood-oriented network for all ages and abilities, sometimes referred to as "bicycle boulevards" or "neighborhood greenways."

The Neighborhood Connections Plan proposes creating low-stress connections to important neighborhood destinations, includes a traffic-calming toolkit to help reduce vehicle speeds and improve quality of life along the network, recommends implementation of policies and actions, and provides corridor treatment examples.

Streets for People is the second part of the Active Transportation Plan, addressing citywide active transportation needs and focusing on high-volume, high-speed corridors within Sacramento's regional network. The plan is currently under public review until early April, with council approval expected in summer 2025.

City of Sacramento Street Design Standards (July 2009)

The Street Design Standards are a portion of the City's Design and Procedures Manual last updated in 2009. The Street Design Standards are the basis for design decisions regarding City streets such as travel lane widths, bikeway types and widths, and sidewalk widths. The Street Design Standards influence development expectations, the built environment, and travel safety and behavior.

The Street Design Standards will go through an amendment process starting in spring 2025 through late summer 2026. The stated project objectives are to identify designs to reduce driver speeds, improve safety for people walking and people biking, provide low stress bikeways to and through intersections, improve intersection design to enhance visibility of people walking and people biking, accommodate sidewalk widths that align with the City's goals for walking, update roadway designs to support efficient transit operations, and expand urban tree canopy.

While the effort will not review signal timing operations, it will review several key design considerations related to street safety including:

- Access control and diversion
- Bikeway types and conflict zones (e.g. bus stops, driveways, and intersections)
- Curb radii, corner islands and turn wedges
- Crosswalk design
- Curb extension design
- Design Vehicles and truck turn design
- Hardened centerlines
- Intersection sight lines and visibility

- Median refuge islands
- Roundabouts/traffic circles
- Sidewalk and landscape strip widths
- Traffic calming (speed lumps, chicanes, raised intersections, traffic circles and similar)
- Travel lane widths, with considerations for 10 ft travel lanes
- Standards for retrofitting older streets with outdated standards

City of Sacramento Traffic Signal Operations Manual

A Traffic Signal Operations Manual is currently being updated to provide best practice guidelines for traffic signals in the City. The guidelines cover the following topics:

- Traffic Signal Design Process Policies, Procedures, and Guidelines
- Traffic Signal Turn-On Policies, Procedures, and Guidelines
- Traffic Signal Timing Policies, Procedures, and Guidelines
- Traffic Signal Safety Tool
- Traffic Operations Center

Top 10 Vision Zero Injury Corridors

Significant strides have been made to improve street safety outcomes on the Vision Zero corridors between 2018 and now. Updates to these corridors are below:

- Marysville Boulevard is awaiting funding to move forward with a preliminary design setup
- El Camino Boulevard is on hold due to the ongoing Street Design Standards amendment
- Broadway (between Martin Luther King Jr Boulevard and Stockton Boulevard) is in the final stages of design
- South Stockton Boulevard is negotiating design contracts and has BRT design work that will incorporate Vision Zero elements
- Florin Road Phase is complete and Phase 2 will require coordination with the California Public Utilities Commission and Union Pacific regarding improvements at the at-grade railroad crossing with construction anticipated to begin in 2026
- Northgate Boulevard has completed planning and has secured funding for Preliminary Engineering
- Arden Way is in the process of selecting consultants for planning services as part of a Caltrans Sustainable Transportation Planning grant
- Howe Avenue is in the planning phase
- 12th Street upgrades that include a road diet and Class IV protected bikeway are complete

Safety Corridors & Speed Limit Setting

The City is updating speed limit setting procedures in alignment with Assembly Bill 43 (AB 43). AB 43 allows the City to create a prima facie speed limit of 20 or 25 mph on streets in "business activity districts." AB 43 also allows the City to round down from measured 85th percentile speed, in some instances by as much as 12.4 mph, when setting posted speed limits. A given street must

meet certain criteria related to "safety corridor" definition or proximity to pedestrian or bicycle generator. The CA MUTCD sets specific circumstances under which a local jurisdiction can lower its posted speed limits in accordance with AB 43. This VZAP Update will update the City's HIN to be developed in a manner consistent with the CA MUTCD definition of "safety corridors." The City is currently in the process of evaluating which streets are eligible for reduced posted speed limits based on AB 43.

Transportation Safety Team

The City has begun to assemble a transportation safety team within the Transportation Division to expedite community-rooted and quick action solutions addressing safety. Their efforts would include construction of quick builds of Vision Zero corridor projects already in progress of design or environmental review.

Benchmarking Overview

The benchmarking framework is made up of six core areas of the Safe System best practices, as identified by the Federal Highway Administration (FHWA). Those are: (1) Safety Planning and Culture; (2) Safe Users; (3) Safe Roadways; (4) Safe Vehicles; (5) Safe Speeds; and (6) Post Crash Care.

The purpose of this benchmark exercise is to identify recommendations for the VZAP update and opportunities to institutionalize the Safe System Approach into the everyday activities of the City. The matrix identifies where the City has already "Institutionalized" a practice, where it is an "Occasional" practice, or "Not a Current Practice".

The benchmarking analysis resulted in four types of conclusions or recommendations, and this memo includes areas of input we need from the City to advance the insights of this analysis in one of these ways:

1. No action needed: City programs, policies, or practices are already consistent with Safe System best practice
2. Accomplish with the Safety Action Plan: The VZAP Update's development process and final product will move the City into best practice alignment
3. Implement following Safety Action Plan adoption: The VZAP Update will include a recommendation for this program, policy, or practice as a next step for implementation following the Plan's adoption
4. No action planned for now: This program, policy, or practice is not currently in place in Sacramento and the City does not intend to move forward with this topic at this time

The results of the benchmarking exercise are in the following section.

Sacramento Vision Zero Benchmarking Results[1]

Core Element	Category	Benchmark	Summary of State of Current Practice in Sacramento (FP Input)	Link/Source	Existing Assessed Level of Commitment/Implementation			Path to Institutionalization			
					Not a Current Practice	Occasional Practice	Institutionalized Practice	No Action Needed	Accomplish with the VZAP	Implement Following VZAP Adoption	No Action Planned for Now
Safety Planning & Culture	Leadership and Commitment	**Leaders publicly commit to a "Zero" goal for traffic fatalities and serious injuries within a specific timeframe, and exhibit buy-in for the Safe System approach through media, public events, and support for related policies and programs. [SS4A Self-Cert Q1]**	"The City Council commits that the City of Sacramento will work collaboratively in a data-driven effort to eliminate traffic fatalities and serious injuries by 2027."**1** "Vice Mayor posted about a proposal declaring a state of emergency regarding pedestrian safety in the City of Sacramento, identifying public education campaign, ramping up traffic enforcement, and committing to Vision Zero."**2** *Will revisit/refine the target year as part of the VZAP Update.*	1. Sacramento Vision Zero Action Plan (2018) 2. Sacramento State of Emergency Resolution			x		x		
		Establish key safety performance indicators and implement a monitoring process to evaluate progress and intervene if Sacramento is not on track. [SS4A Self-Cert 7 pt 1]	The City's primary performance measure to evaluate progress is the change in the number of KSI crashes in total and under each crash profiles, with the ultimate goal to reach zero KSI crashes by 2027.	Sacramento Vision Zero Action Plan (2018)			x		x		
		Convene and/or participate in an inter-agency committee, task force, implementation group, or working group that is charged with a Safety Action Plan's development, implementation, and monitoring [SS4A Self-Cert Q2]. The group should include a representative from every agency or department that plays a critical role in advancing each Safe System element.	The City of Sacramento Active Transportation Commission meets monthly to provide advice on strategies related to walking, bicycling, and rolling in the City. *Current effort as part of this VZAP Update to convene a Task Force.*	https://boards.cityofsacramento.org/board/2924			x		x		

[1] Benchmarking is informed by: Primer on Safe System Approach for Pedestrians and Bicyclists (available at: https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/fhwasa21065.pdf)

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		Provide ongoing training to Sacramento staff, directors, elected officials, and community stakeholders on the Safe System approach.	*Current effort as part of this VZAP Update - Working Meetings.*		x				x		
		Establish an ongoing Safe Routes to Schools program and funding mechanism.	Safe Routes to School programming implemented by WALKSacramento. **1** Supported in the 2040 General Plan. **2**	1. https://www.walksacramento.org/portfolio/safe-routes-to-school/ 2. Sacramento 2040 General Plan		x			x		
	Meaningful Engagement	**Engage with the public and relevant stakeholders, including the private sector and community groups. Engagement activities should be available in common languages spoken by Sacramento residents whose first language is not English. Incorporate information received from the engagement and collaboration into the safety plan. [SS4A Self-Cert Q4]**	The City regularly engages with the public, private sector, and community groups during all planning processes. The City of Sacramento launched "Our Safety is Homegrown" campaign in Summer 2018, an educational campaign with messages to walk, bike, and drive safely.**1** *This is also a current effort as part of this VZAP Update.*	1.Sacramento Vision Zero Action Plan Update (2023)			x	x			
		Establish a website to inform the public about Sacramento's safety program goals and progress and the effectiveness of implemented safety projects. [SS4A Self-Cert Q7 pt 2]	The City's official page has information about Sacramento's transportation program goals and progress updates but lack of project effectiveness on safety improvements. *Current effort as part of this VZAP Update.*	https://www.cityofsacramento.gov/public-works/transportation/current_transportation_efforts		x				x	

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	Data and analysis	**Apply a proactive and transparent approach to data-driven safety analysis, including the use of systemic profiles, roadway and roadside condition, and modal specific condition assessments (e.g., bicycle network stress or distance between marked crossings). [SS4A Self-Cert Q3]**	Conducted as part of the 2018 VZAP, and will be *enhanced as an effort of this VZAP Update.*				x		x		
		Establish a process for residents to report safety hazards or request safety interventions and a data-driven approach for evaluating the reports/requests.	The city provides non-emergency service to citizens and visitors to connect, report, and inquire information about City services, which includes street related issues that may lead to safety hazards via 311.	https://www.cityofsacramento.gov/information-technology/311			x	x			
		Maintain a GIS inventory and actively work to improve accuracy of crash data and roadway data such as missing sidewalks, bikeways, intersection controls, pedestrian/bicycle volumes, etc.	The city has an updated interactive Vision Zero Crash dashboard based on Crossroads data collected from local Sacramento Police Department Data. The most recent dataset including 2023 and 2024 has some data management issues. The city has a comprehensive GIS database of City infrastructure, including speeds, intersection controls, walking and biking facilities, trees, etc.	https://experience.arcgis.com/experience/0e4570ffc617481cabed6e666b6cd532		x		x			
		Proactively and holistically evaluate risk factors and prioritize locations with high potential for exposure. Analysis considers the 'Ws' of safety (who, what, when, where, why, which).	*Current effort as part of this VZAP Update.*	Sacramento Vision Zero Action Plan (2018)		x			x		

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	Funding	Develop a project evaluation framework that prioritizes funding based on fatal and serious injury crash reduction opportunities, especially for Areas of Persistent Poverty and vulnerable road users.	The City implements formula-based funded projects for comprehensive transportation corridor rehabilitation improvements that improve mobility options, incorporate or expand active transportation elements, address safety concerns. The Transportation Priorities Plan, the City's adopted strategy for prioritizing transportation investments, incorporates community values of equitable investment and transportation safety.	1. https://www.cityofsacramento.gov/public-works/engineering/transportation_funding 2. Sacramento Transportation Priorities Plan			x		x		
		Apply for grant programs to fund safety projects.	The city has applied for ATP funds for several projects such as Two Rivers Trail (Phase 2), Broadway Complete Streets, Franklin Complete Streets, and Northwood School Access Improvements. **1** The city also applied to the federal Safe Streets and Roads for All grant program for Marysville Blvd Vision Zero Top 5 corridor, and secured funding for Highway Safety Improvements Program (HSIP) intersection improvements, and HSIP spot safety improvements. **2**	1. https://www.cityofsacramento.gov/public-works/engineering/transportation_funding 2. Sacramento Vision Zero Action Plan Update (2023)			x	x			
		Institutionalize safety considerations in all project types to systematically fund projects through operations and maintenance efforts (such as repaving projects through the CIP).	Throughout the three major phases of an effort (Planning, Preliminary Engineering/Environmental, and Final Design), the city teams consider safety considerations in design efforts.				x	x			

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		During the development review process ensure circulation to, from, and within the development, along with recommended TDM measures, align with safety best practices and encourage active transportation modes.	The city is in process of updating their Street Design Standards. The city is planning to update its TDM requirements to increase share of all trips by transit, active transportation, and pooled shared modes. (17% by 2030, and 23% by 2045). The project team will be developing a recommendation of a new strategy to encourage and support developments to provide TDM programs, services, and amenities at their sites.	https://www.cityofsacramento.gov/public-works/transportation/current_transportation_efforts/transportation_demand_management		x			x		
	Removing Barriers to Mobility	Use data to identify Areas of Persistent Poverty. Analyze how these communities are burdened by traffic crashes and/or include a prioritization criteria for fair access to safety improvements within these areas.	The City's Vision Zero Plan identifies locations in Environmental Justice Areas with a high frequency of crashes. **1** This current effort will utilize data from the Transportation Priorities Plan.	1. Sacramento Vision Zero Action Plan (2018) 2. Transportation Priorities Plan			x	x			
		Meaningfully engage populations to provide fairness in resource allocation by prioritizing the most dangerous locations and improving access to jobs and services.	Previous effort as part of the 2018 VZAP, ongoing effort with various transportation plans, and *current effort as part of this VZAP Update.*				x		x		
Safe Users	Education	Perform outreach through educational programs, with a focus on the behaviors and target audiences most linked to death and serious injuries. Utilize partnerships with community-based organizations and advocacy groups.	*PW does a free monthly Urban Biking and Scooting class. Broader educational programs need to be coordinated with Police Department, particularly around impaired driving.*			x			x		

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		Use demonstration projects to raise awareness of new designs, encourage support among stakeholders for safety projects requiring capacity trade-offs, and solicit feedback from the public. Demonstration projects also provide the opportunity to measure safety effects and encourage innovation and design flexibility.	Tactical demonstration and pilot project at 34th/2nd/Broadway in Oak Park. More anticipated with Tactical Action Group (TAG) incoming. *VZAP will provide the framework to implement demonstration projects ahead of full funding opportunities.*	Sacramento Vision Zero Action Plan Update (2023)		x				x	
	Enforcement	Reallocate enforcement activities to target those behaviors and locations most linked to death and serious injury.	A Council Member's proposal included enforcement prioritization on high-injury corridors. Police Department does focus on top 10 Vision Zero corridors from the 2018 HIN. Currently, automated speed enforcement is not legal in California besides in six pilot cities, but the City is trying to lobby the State to be able to join on-going pilot of automated speed enforcement. The City supports AB 645 and SB 720 which allow the use of automated enforcement with transparent implementation that protects user privacy.				x	x			
	Research	Develop and implement strategies for robust demographic data collection in crash reporting including partnering with organizations such as Sacramento County Health and Social Services Agency and local hospitals.	Sacramento PD currently collects age and sex, data when responding to collisions, but not race. No further cross-jurisdictional coordination occurs with the Health Department or local hospitals as it relates to sharing safety data.		x				x		

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Safe Roadways	Collision avoidance	Systematically implement proven countermeasures to enhance pedestrian and bicyclist safety and connectivity by providing separation in space and time, increasing attentiveness and awareness, and addressing infrastructure gaps. Measures include protected signal phases, clear zones, and vertical and horizontal separation, prioritized based on crash exposure, crash history, roadway characteristics, and adjacent land uses associated with higher levels of use.	Sacramento has developed Pedestrian Crossing Guidelines to improve pedestrians crossings, incorporating treatments such as curb ramps, marked crosswalks, curb extensions, crossing islands, raised pedestrian crossings, and enhanced lighting.[1] The City is also in the process of updating their Design Standards. Sacramento has made progress on making safety improvements on the High Injury Network with prioritization based on crash history, street characteristics, and adjacent land uses, specifically the Top 10 Injury Corridors identified through the 2018 Vision Zero Plan process.	1.https://www.cityofsacramento.gov/content/dam/portal/pw/Transportation/Active-Transportation/Treatment-Applications-Guide-to-Pedestrian-Crossing-Guidelines-April-2021.pdf?			x	x			
	Kinetic energy reduction	Systemically install proven countermeasures to manage motor vehicle speed and collision angles. Measures include roadside appurtenances, roundabouts, refuge islands, hardened center lines, and road diets.	The city has recognized the safety benefits of roundabouts and is considering the installation of new traffic safety measures, such as roundabouts and road diets, in high-risk areas. Sacramento has made progress on making safety improvements on the High Injury Network prioritized based on crash history, street characteristics, and adjacent land uses, specifically the Top 10 Injury Corridors identified through the 2018 Vision Zero Plan process.			x		x			
		Evaluate intersection design and control decisions in the planning or scoping stage for opportunities to better prioritize reducing kinetic energy transfer, following new FHWA guidance.	The City is also in the process of updating their Design Standards, which should include prioritizing reduction in kinetic energy transfer.			x		x			
	Policies and tradeoffs	Designate functional class and modal priority for roadways to pinpoint the most effective safety countermeasures and streamline tradeoff decisions.	Previous effort as part of the 2018 VZAP, and *current effort as part of this VZAP Update*.				x		x		

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		Put curbside management, shared mobility, or micromobility policies (e.g., permitting, enforcement) in places that prioritize pedestrian and bicyclist safety.	The City of Sacramento has introduced surveillance cameras on buses to monitor and issue tickets for illegal parking in bike lanes, enhancing safety for people biking.[1] The City code mandates that bikes and scooters cannot be left on sidewalks, blocking travel ways for pedestrians.[2].	1. https://www.cbsnews.com/sacramento/news/parking-enforcement-cameras-sacramento-city-buses/ 2. https://codelibrary.amlegal.com/codes/sacramentoca/latest/sacramento_ca/0-0-0-22753#JD_10.76.050		x				x	
		Ensure safety for all users is prioritized, and accessibility maintained, during construction and road maintenance projects.	The City has established a Sidewalk Closure Policy that mandates the provision of alternate accessible routes when sidewalks are closed due to construction.[1] The City will be updating its Street Design Standards considering design to improve safety for people walking and people bicycling. [2] All construction activities must follow the City's Standard Specifications, ensuring safe construction areas, protection of facilities, and traffic control for vehicle safety through or around work zones.[3] The City established work zone detours. [4]	1. https://www.cityofsacramento.gov/content/dam/portal/pw/Publications/Engineering/SidewalkClosurePolicy.pdf? 2. https://www.cityofsacramento.gov/public-works/transportation/current_transportation_efforts/street_design_standards_amendment 3. https://www.cityofsacramento.gov/content/dam/portal/dou/Specifications_FINAL2020.pdf? 4. https://www.cityofsacramento.gov/public-works/transportation/current_transportation_efforts/work_zone_and_event_detour			x	x			

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Safe Vehicles	Technology	Provide supportive infrastructure for dynamic curbside management and autonomous vehicles to enable active safety technology.	Unknown.		x						x
	Fleet Management	Support safer operations of City and commercial vehicles through a transition plan of City's vehicle fleet to lower-mass and safety feature enhanced vehicles; heavy vehicle route restrictions to avoid high-pedestrian areas; and curbside management programs to limit user conflicts around stopped or loading vehicles.	Unknown.		x						x
	Autonomous vehicles	Provide supportive infrastructure for autonomous vehicles to enable active safety technology.	Autonomous vehicles were tested in Sacramento for possible future implementation.	1. https://www.transportation.gov/sites/dot.gov/files/docs/policy-initiatives/automated-vehicles/351281/56-sacramento.pdf	x						x
Safe Speeds	Design and operations	Adopt roadway design standards that are focused on speed management, such as target speed-based design. Adjust roadway geometries for context-appropriate speeds.	Streets design standards support vehicle speed management to reduce the risk of severe or fatal injury outcomes in collisions. Where people are expected to be walking or biking or where there may be a desire for such activity, vehicle speeds should be 25 mph or slower unless, there are well-designed separated facilities. Similarly, where there is the potential for crossing conflicts between any mode, vehicle speeds should be 25 mph or slower unless, design features are present that eliminate those crossing conflicts. The City is currently updating their Street Design Standards.	1. https://www.cityofsacramento.gov/content/dam/portal/pw/Publications/Engineering/Development-Engineering/Design-Procedures-Manual/section15-street-design-standards.pdf		x			x		

Core Element	Category	Benchmark	Summary of State of Current Practice in Sacramento (FP Input)	Link/Source	Existing Assessed Level of Commitment/Implementation			Path to Institutionalization			
					Not a Current Practice	Occasional Practice	Institutionalized Practice	No Action Needed	Accomplish with the VZAP	Implement Following VZAP Adoption	No Action Planned for Now
	Enforcement	Deploy automated speed enforcement, with a focus on fair fee structures.	Automated speed enforcement isn't permitted in California (minus pilot locations listed in AB 645), but the City of Sacramento is planning to support the effort if California established new legislation to allow automated speed enforcement in the City.**1**	1. Sacramento Vision Zero Action Plan (2018)	x						x
	Policy and training	Follow speed limit setting methodologies that determine appropriate speeds based on roadway context and modal priority, rather than the historic behavior of road users. Provide speed management training to staff focused on fatality and serious injury minimization.	The City of Sacramento employs a context-based approach to setting speed limits on transportation projects and is in the process of implementing allowances set forth in AB 43. For example, the City has implemented lower speed limits on certain streets to enhance safety, including areas near schools and residential neighborhoods. *VZAP Update efforts will support the creation of "Safety Corridors."*	1. https://sacramentocityexpress.com/2024/08/14/city-set-to-lower-speed-limits-in-14-areas-in-sacramento/?			x			x	
Post Crash Care	Crash investigation	Create a feedback loop such that key insights from crash investigations are shared with roadway designers.	Previous effort as part of the 2018 VZAP, *and current effort as part of this VZAP Update.*	Sacramento Vision Zero Action Plan (2018)			x		x		
	Partnerships	Share data across agencies and organizations, including first responders and hospitals, to develop a holistic understanding of the safety landscape and improve accuracy.	Unknown.								x

Leadership and Commitment

The City Council has publicly committed to Vision Zero, establishing it as a guiding framework for transportation safety initiatives. Sacramento has adopted key performance indicators to evaluate progress, ensuring that safety metrics are integrated into planning and implementation efforts. Prioritizing safety improvements on the HIN and Top 10 Injury Corridors demonstrates the City's commitment to serving people of all ages and abilities and prioritizing the most dangerous locations. Leadership and commitment are institutionalized practices within the city. Elected officials and agency leaders actively support safety initiatives, and there is a clear alignment between Vision Zero objectives and citywide transportation policies. However, funding for these initiatives has been challenging given the lack of a dedicated funding source. City staff rely heavily on grant funding to fund safety improvements. Grant funding is very competitive and the amount available fluctuates depending upon factors at the state and federal levels that are outside of City staff's control.

Data-Driven Decision Making

Sacramento employs a data-driven approach to prioritizing safety interventions. The City utilizes collision data, community input, and transportation system performance metrics to inform planning and project development. The City's primary performance measure for Vision Zero progress is the reduction in fatalities and serious injuries. This approach aligns with industry best practices, as recommended by the Federal Highway Administration (FHWA) and the Safe System Approach.

The City of Sacramento has implemented foundational data collection and analysis practices, such as the Vision Zero dashboard with an interactive map that displays motor vehicle fatalities and the 2018 Vision Zero Action Plan. The City also maintains a comprehensive GIS database of the City's infrastructure including speeds, intersection controls, walking and biking facilities, and trees. The City has a publicly available Vision Zero Dashboard: https://experience.arcgis.com/experience/0e4570ffc617481cabed6e666b6cd532.

Enhanced collaboration between City departments and external agencies can lead to more effective safety strategies grounded in shared data and insights. This coordinated approach helps create safety initiatives with a comprehensive view between planning, engineering and first responders.

Engineering and Infrastructure Improvements

The City has implemented a range of engineering solutions to improve street safety, particularly areas along the HIN and Top 10 Injury Corridors. These improvements are informed by crash data, street characteristics adjacent land uses, and community feedback.

Benchmarking results suggest that engineering countermeasures are well-integrated into Sacramento's transportation projects, although continued investment in quick-build safety

projects, enhanced street design standards, improved signal operations practices, and systemic network-wide improvements aligned with the HIN and Top 10 Injury Corridors could further enhance outcomes.

Speed Management and Enforcement

Speed management is a critical component of Sacramento's Vision Zero strategy. Although the City has adopted policies to reduce speeds in high-risk corridors, strategies such as reducing default speed limits, expanding automated enforcement programs, and enhancing street designs that encourage safer speeds could further strengthen the City's efforts.

Benchmarking results indicate that while some speed management strategies are in place, further institutionalization is needed to achieve broader systemic improvements.

Public Engagement and Community Partnerships

Community engagement is a key component of Sacramento's Vision Zero approach. The City collaborates with advocacy groups, neighborhood associations, and local agencies to raise awareness of traffic safety issues and solicit input on proposed projects, and efforts include:

- Hosting community workshops and open houses
- Conducting safety awareness campaigns
- Attend existing events to meet communities in their places and at their events

Benchmarking results suggest that Sacramento's engagement efforts align with best practices. Ensuring outreach consistently reaches and prioritizes areas of persistent poverty and those not typically involved in City planning processes will continue to enhance accessibility and effectiveness.

Challenges and Opportunities for Improvement

While Sacramento has made significant progress in advancing Vision Zero, key challenges remain:

- Sustained Funding: Expanding funding sources for safety projects and leveraging federal, state, and regional grants to support continued implementation.
- Removing Barriers to Mobility: Continue to meaningfully engage populations to provide fairness in resource allocation by prioritizing the most dangerous locations and improving access to jobs and services.
- Inter-Agency Coordination: Strengthening collaboration between City transportation engineering and planning, law enforcement, first responders, and public health agencies, as well as outside agencies such as Sacramento County and Caltrans is at the core of the Safe System Approach. Collaboration and data sharing leads to more targeted safety interventions, interdisciplinary buy in, and stronger policy alignment.

Safe System Policy-Based Alignment Framework

The Safe System Policy-Based Alignment Framework[2], a resource provided by the FHWA, is a tool to help agencies assess specific policies to determine the extent to which a give policy is in alignment with the Safe System Approach.

The alignment framework was used to assess policies in the 2040 General Plan Mobility Element, evaluating alignment with Safe System principles and providing efficient and cost-effective infrastructure improvements, tracking progress and benchmark improvements, and identifying gaps in existing policies and programs. This assessment is contained in **Appendix C**.

The tool has a five-level adoption process for scoring, with criteria scored on a scale of 0 to 15. Conclusions from this tool include:

- The City falls under the "Integration" level (a score of 13 or better) for its commitment to eliminating fatal and serious injury crashes; proactively accounting for risks and behaviors that could lead to fatal and serious injury crashes; integrating multi-faceted approaches to safety to ensure that if one element fails others support the system; and considering equity.
- The City falls under the "Execution" level (a score of 7-9) for accounting for crashes that have a higher likelihood of fatal or serious injury due to mode, speed, or angle of collision.
- The City falls under the "Development" level (a score of 4-6) for having policies address human error in fatal and serious injury crashes; multi-disciplinary and multi-jurisdictional team, implying that responsibility is shared and that prioritization is not only focused on one street type or only infrastructure improvements.

Next Steps

Understanding the current state of policies and practices that may impact safety related decisions and outcomes is an important step to institutionalizing the Safe System Approach into everyday practice and streamlining efforts toward Vision Zero. These findings will be considered in determining the actions within the VZAP update.

Next steps include identifying a strategy and means for the City to more easily track and report on Vision Zero implementation progress moving forward. This would be tied to the progress the City is making towards the recommendations identified in the VZAP Update.

[2] Available at: https://highways.dot.gov/safety/zero-deaths/safe-system-policy-based-alignment-framework

Appendix A - 2018 Vision Zero Action Plan: Action Item Status

Action Category	Action	Timeline	Partners	Metric	Group Lead	Status	Notes
1. Vision Zero Program	1.1 Include Vision Zero on agendas for all City sponsored meetings, and education opportunities such as the Planning Academy	Short-Term	CC, NA	Number of meetings with Vision Zero on agenda	Transportation Planning	**In Progress**	
1. Vision Zero Program	1.2 Convene regular meetings of executive-level departmental representatives to coordinate Vision Zero efforts.	Short-Term	PW, CD, YPCE, PD, CMO	Number of executive-level participants	TBD	**In Progress**	
1. Vision Zero Program	1.3 Develop a workshop for media professionals on how to best communicate about traffic crashes and roadway safety.	Long-Term	CMO	Number of media professionals participating	TBD	**Not Started**	
1. Vision Zero Program	1.4 Launch online, interactive crash data map and website.	Long-Term	PW	Number of website visitors	Transportation Planning	**Completed**	https://experience.arcgis.com/experience/0e4570ffc617481cabed6e666b6cd532
1. Vision Zero Program	1.5 Identify a permanent, dedicated funding source for Vision Zero implementation and coordination.	Short-Term	CC	Amount of funding available for Vision Zero	Transportation Planning	**Completed**	
1. Vision Zero Program	1.6 Incorporate Vision Zero safety principles into all future City plans and design documents.	Long-Term	CD, PW	Number of plans and policies incorporating Vision Zero	TBD	**In Progress**	
1. Vision Zero Program	1.7 Provide ongoing safety related training and support to City staff responsible for street design and enforcement activities.	Long-Term	PD	Share of SPD officers trained	Police Department	**Not Started**	
1. Vision Zero Program	1.8 Publish an annual report to measure progress against the goals of the Action Plan.	Long-Term	PW	Annual report addressing all metrics and performance measures	Transportation Planning	**Not Started**	
2. Street Design (Addresses Profiles 3 & 4)	2.1 Update City street design standards to reflect complete streets and designs reflective of crash reduction factors.	Short-Term	PW	Design standards updated	Transportation Planning	**In Progress**	
2. Street Design (Addresses Profiles 3 & 4)	2.2 Develop designs and secure grant funding for first Top 5 priority corridors, with a focus on roadway designs for reduced speeds.	Short-Term	PW	Number of projects implemented	Transportation Planning	**In Progress**	
2. Street Design (Addresses Profiles 3 & 4)	2.3 Install low-cost safety improvements at 10 locations, including new road markings, signs, and minor signal modifications per year.	Short-Term	PW	Number of projects implemented	Traffic Engineering Design	**Completed**	
2. Street Design (Addresses Profiles 3 & 4)	2.4 Develop prioritized list and deliver half of engineering safety projects on the HIN in Disadvantaged Communities (commensurate with share of fatal collisions).	Long-Term	PW	Share of projects delivered in Disadvantaged Communities	TE Design ES CIP Team	**In Progress**	
2. Street Design (Addresses Profiles 3 & 4)	2.5 Establish internal process to ensure that Vision Zero countermeasure options are evaluated and implemented where feasible on projects that fall within the HIN.	Long-Term	PW, CD	Share of public and private projects incorporating Vision Zero elements	TE Design ES Design Team ES Development Engineering	**Not Started**	
2. Street Design (Addresses Profiles 3 & 4)	2.6 Enhance street lighting to improve visibility throughout the HIN.	Long-Term	PW	Share of HIN with upgraded street lighting	TE Design ES CIP Team	**Not Started**	

Appendix A - 2018 Vision Zero Action Plan: Action Item Status

Action Category	Action	Timeline	Partners	Metric	Group Lead	Status	Notes
2. Street Design (Addresses Profiles 3 & 4)	2.7 Prioritize at least 10 capital project locations on HIN to address roadway designs for reduced speeds; develop project designs and secure funding. Focus on geographic equity and Disadvantaged Communities.	Long-Term	PW	Number of project implemented. Geographic distribution of projects. Share of projects in Disadvantaged Communities.	Transportation Planning TE Design ES CIP Team	**Completed**	
2. Street Design (Addresses Profiles 3 & 4)	2.8 Work with local, state and federal partners to update the current 85th percentile methodology for setting speed limits.	Long-Term	GP	Number of local, state and federal policy changes to support Vision Zero	Transportation Planning	**Completed**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.1 Launch high-visibility education PSA campaigns against speeding, distracted driving, impaired driving, and other high-risk behaviors. Campaigns will focus on HIN corridors	Short-Term	PD	Number of peopled reached	PW	**Completed**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.10 Improve data collection and reporting on speed, impairment, cell phone use, and distraction for KSI collisions.	Long-Term	PD	Share of collision records including this data	Police Department	**Not Started**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.11 Work with local, state and federal partners to lower legal blood alcohol levels.	Long-Term	GP	Number of local, state and federal policy changes to support lowering legal blood alcohol levels	External Partners	**Not Started**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.2 Explore opportunities to expand free or subsidized transit fares during holidays and for special events.	Short-Term	RT	Number of people using free or subsidized fares	Transportation Planning	**In Progress**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.3 Increase the use of speed feedback signs to discourage speeding.	Short-Term	PW	Number of signs installed	TE Design	**In Progress**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.4 Support state Automated Speed Enforcement legislation.	Short-Term	CC, PD, GP	Adoption of state legislation	Transportation Planning	**Completed**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.5 Launch high-visibility enforcement campaigns against speeding, failure to yield to pedestrians, distracted driving, and impaired driving. Campaigns will focus on HIN corridors.	Short-Term	PD	Number of enforcement campaigns	Police Department	**Completed**	
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.6 Deter impaired driving by targeting education and outreach at alcohol-serving establishments.	Long-Term	PD, BID	Number of establishments reached	Police Department	**Not Started**	DRAFT - Pending input from PD.
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.7 Develop public promotional campaign to encourage late-night transit, taxi, rideshare, and other services to provide alternatives to impaired driving.	Long-Term	PD, TNC, RT	Number of people reached	Police Department	**Not Started**	DRAFT - Pending input from PD.
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.8 Increase number of traffic enforcement officers to number recommended by best practices.	Long-Term	PD	Number of traffic officers	Police Department	**Not Started**	DRAFT - Pending input from PD.
3. Dangerous Behaviors (Addresses Profiles 1 & 2)	3.9 Integrate Vision Zero curriculum into PD Academy curriculum and in-service Police Officer training.	Long-Term	PD	Number of officers trained on Vision Zero	Police Department	**Not Started**	DRAFT - Pending input from PD.
4. Access To Key Destinations (Addresses Profiles 7 & 10)	4.1 Install at least one low-cost or pilot project engineering countermeasure project in a neighborhood-serving commercial area each year.	Short-Term	PW, NA, BID	Number of projects implemented	TE Design	**Completed**	

Appendix A - 2018 Vision Zero Action Plan: Action Item Status

Action Category	Action	Timeline	Partners	Metric	Group Lead	Status	Notes
4. Access To Key Destinations (Addresses Profiles 7 & 10)	4.2 Improve safe pedestrian and bicycle access to transit stops along key bus routes and near light rail stations.	Long-Term	PW, RT	Share of transit stops and stations that have improved access	TE Design ES CIP Team	**In Progress**	
4. Access To Key Destinations (Addresses Profiles 7 & 10)	4.3 Prioritize at least 10 capital project locations on HIN to improve access to commercial areas and transit stops; develop project designs and secure funding. Focus on geographic equity and Disadvantaged Communities.	Long-Term	PW, BID, RT	Number of project implemented. Geographic distribution of projects. Share of projects in Disadvantaged Communities.	Transportation Planning TE Design ES CIP Team	**Completed**	
4. Access To Key Destinations (Addresses Profiles 7 & 10)	4.4 Evaluate school areas eligible for reduced speed limits and implement.	Long-Term	PW, SD	Share of schools with a school zone	PW	**Completed**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.1 Collaborate with local stakeholders near the HIN with a special emphasis on reaching vulnerable and under served populations.	Short-Term	PW, NA, PO	Number of public meetings	PW	**Completed**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.10 Establish regular pedestrian and bicyclist counts at consistent locations in order to understand collision rates and exposure, develop walking and biking data that can be analyzed over time, and assist in prioritizing investments.	Long-Term	PW, PO		Transportation Planning	**Not Started**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.2 Revisit pedestrian crossing guidelines for signalized and unsignalized intersections.	Short-Term	PW	Share of crossings meeting design criteria	PW	**Completed**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.3 Develop PSA campaign aimed at drivers to increase safety for pedestrians age 60+.	Short-Term	PW	Estimated number of people reached	Transportation Planning Police Department	**Completed**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.4 Update City signal timing policy to improve safety for all modes (e.g. all red time, pedestrian crossing times).	Short-Term	PW	Share of signals meeting updated policy	TOC	**In Progress**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.5 Complete 10 projects that improve bicycle and pedestrian safety related to turning vehicles at intersections.	Long-Term	PW	Number of projects implemented	TE Design	**In Progress**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.6 Continue building the enhanced bikeway network consistent with the Bicycle Master Plan.	Long-Term	PW	Lane miles of low-stress facilities installed	Transportation Planning	**Completed**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.7 Install at least 10 pedestrian crossing treatments on the HIN.	Long-Term	PW	Share of crossings that have been upgraded	TE Design	**Completed**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.8 Install pedestrian countdown timers at every signalized crossing location throughout the City.	Long-Term	PW	Share of crossings with countdown timers	TOC ES CIP Team	**In Progress**	
5. Vulnerable Road Users (Addresses Profiles 5, 6, 8 & 9)	5.9 Develop and implement at least 10 trust-building opportunities related to traffic safety among law enforcement and low-income communities, and communities of color.	Long-Term	PD, NA, PO	Number of public meetings & events	Police Department	**Not Started**	Pending input from PD

Appendix B: Regional, State, and Federal Safety Policies and Guidelines

Understanding regional, state, and federal policy frameworks can be a helpful resource when considering cross-jurisdictional coordination and/or in framing support for advancing City practices. For example, FHWA's Safe System Design Hierarchy and Caltrans DIB 94 (both discussed further below) can be helpful resources and examples at the federal and state level for how to revise and advance street design standards to better support safe outcomes for all road users.

Regional

Sacramento County Local Road Safety Plan (January 2022)

The County's Local Road Safety Plan identified Emphasis Areas using stakeholder input and a data-based approach to understand collision characteristics and driver behaviors across the county. Emphasis Areas were then categorized into four groups with accompanying strategies to reduce these types of collisions. The four groups included: Vulnerable Users, Risky Behaviors, Infrastructure, and Improved Systems. Many of the county streets identified within the LRSP are on the city boundary or feed traffic directly onto city streets.

SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS)

The 2020 MTP/SCS is SACOG's long-range plan that links land use, air quality, and transportation needs for the Sacramento region. It forecasts growth and development in the region through 2040, with a focus on creating a vibrant future supported by a prosperous economy, strong housing and jobs growth, and a variety of transportation options for residents. The plan aims to decrease carbon emissions, support climate adaptation and resiliency, and promote vibrant places. The four policy priority areas outlined in the MTP/SCS are:

1. Build vibrant places for today's and tomorrow's residents
2. Foster the next generation of mobility solutions
3. Modernize the way we pay for transportation infrastructure
4. Build and maintain a safe, reliable, and multimodal transportation system

As stated in the Policies and Implementation Actions in the MTP/SCS, "almost $9 billion of the $35 billion budget is anticipated to go to expanding the transportation system. Of this capacity budget, $6.8 billion will go to street and highway expansion projects, including operational, safety, and multi-modal elements as part of large capital projects." Another $5.6 billion is for dedicated bicyclist and pedestrian infrastructure, safety programs and improvements, and operational improvements, and programs to connect residents with options and services.

The next update of the MTP/SCS, termed the 2025 Blueprint, will be finalized later this year.

State

Caltrans Strategic Highway Safety Plan and Implementation Plan (2023)

The Caltrans Strategic Highway Safety Plan (SHSP) is a framework for reducing fatalities and serious injuries on California's streets. Through extensive statewide outreach and in-depth collision analysis, Caltrans has identified sixteen challenge areas with the greatest opportunity to reduce fatalities and serious injuries on public streets. The SHSP Implementation Plan supplements the SHSP with the specific actions to be taken in each challenge area to achieve this goal.

Caltrans Director's Policy (DP) 36

In Caltrans Director's Policy (DP) 36, made effective in February of 2022, the agency committed to eliminating fatal and serious injury crashes by the year 2050, and committed to achieving this goal through the application of the Safe System Approach.

Caltrans Director's Policy (DP) 37

Director's Policy (DP) 37, issued in December 2021, establishes creating complete streets that support people walking, biking, taking transit, and accessing passenger rail. It recognizes these priorities as a means of advancing state goals in climate and the environment, in public health, and in equity and repairing harm to underserved communities. It also recognizes complete streets as valuable community spaces that can boost economic vitality and resiliency. To these ends, it directs that "all transportation projects funded or overseen by Caltrans will provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved."

Caltrans Design Information Bulletin (DIB) 94

In January 2024, Caltrans issued Design Information Bulletin (DIB) 94 to support the implementation of DP 37. DIB-94 provides design standards and guidance introducing more flexibility than the Highway Design Manual (HDM) to make it easier to implement safety and complete streets improvements that serve all ages and abilities. The design approach as well as standards contained in DIB-94 are significant progress towards being able to effectively slow vehicle speeds and increase separation for vulnerable road users on Caltrans' owned facilities. It establishes a framework consistent with the Safe System Approach and is also a framework many local agencies would benefit from mirroring in their design and implementation of local roads.

Federal

The United States Department of Transportation (US DOT) incorporated the Safe System Approach as part of its most recent National Roadway Safety Strategy (NRSS), adopted in January 2022. This NRSS is the first national commitment to the goal of zero fatalities on America's roadways, and names the Safe System Approach as the way to accomplish that goal. Federal

transportation officials have since unveiled a number of policies and programs geared towards the application and implementation of the Safe System Approach at the state and local levels.

Safe Streets and Roads for All

The Safe Streets and Roads for All (SS4A) grant program was established by the Bipartisan Infrastructure Law in 2022, centered around the Department of Transportation's National Roadway Safety Strategy and its goal of zero deaths and serious injuries on America's roadways. It will provide $5 billion in grant funding over its five-year duration to develop and implement safety plans and projects.

The SS4A grant program provides funding for local agencies to create Comprehensive Safety Action Plans (CSAPs). It also provides funding to implement safety projects, but only to those agencies that have an adopted CSAP or an equivalent. In order to qualify as a CSAP (and allow an agency to be eligible for implementation planning grant funding), a plan must meet a nine-point criteria as set forth by the Department of Transportation. They include an official commitment and goal to eliminate roadway fatalities and serious injuries; the creation of a standing task force or working group that will lead and monitor the implementation of the plan; data-driven safety analysis; public engagement and inter-governmental collaboration; consideration of equity in the planning process; assessment of current policies and guidelines to identify changes that will better prioritize safety; identification of a comprehensive set of projects and strategies that address safety issues; posting of the plan online along with description of how future progress will be measured; and that the plan would be updated every five years.

FHWA Safe System Roadway Design Hierarchy

The Safe -System Roadway Design Hierarchy, created by the Federal Highway Administration (FHWA) in 2024, provides guidance in contextualizing and assessing infrastructure-based countermeasures and strategies on their alignment with the principles of the Safe System Approach.

The Hierarchy classifies countermeasures into four tiers, from most to least aligned with Safe System principles. These tiers are:

1. Removing severe conflicts, which can act to eliminate high-risk conditions that involve users with different speeds or moving in different directions sharing space. This tier can include countermeasures that remove potential points of conflicts (for example, removing conflicting turning movements), and those that separate vulnerable users from vehicles in space (for example, protecting people biking through a separated bike lane).
2. Reducing vehicle speeds, which reduces the kinetic energy present within systems and thereby reduces the severity of crashes that do occur. As driver behavior, especially when it comes to speed, is highly influenced by roadway features, countermeasures that reduce prevailing speeds can include lane narrowing and features that channelize vehicle traffic such as median islands.

3. Managing conflicts in time, which covers instances (such as intersections) where space needs to be shared between different users, but where they can be separated in time. An example is the Leading Pedestrian Interval, which allows people walking to have a "head start" interval at a signalized intersection before conflicting vehicle traffic enters the crosswalk.
4. Increasing attentiveness and awareness, which involves alerting users to conflicts and potential risks, can involve such countermeasures as intersection daylighting and warning signage.

Crucially, the Hierarchy prioritizes improvements and countermeasures that make physical changes to the system for the whole population as more effective than measures that rely on roadway users and individual decisions. This is consistent with the Safe System Approach's central premise that humans make mistakes, and that the roadway system should be designed to accommodate them through redundant and proactive interventions.

In addition to presenting this tiered hierarchy as a framework for understanding countermeasures as they relate to the principles of the Safe System Approach, the guidance also presents examples of both common and novel countermeasures that fall under each tier.

FHWA Safe System Approach for Speed Management

Speeding continues to be one of the leading causes of collisions across the country, especially those causing fatalities and severe injuries, and the relationship between higher speeds and increased collision severity is well-documented. The FHWA's 2023 report on the Safe System Approach for Speed Management provides targeted recommendations around speed management. The report notes the need for agencies to place safety and the prevention of injury collisions (as opposed to throughput or travel times) as the highest priority when it comes to speed setting on roadways, and highlights the need to change the

physical design and context of the roadway beyond merely changing regulatory speed limits in order to achieve target speeds.

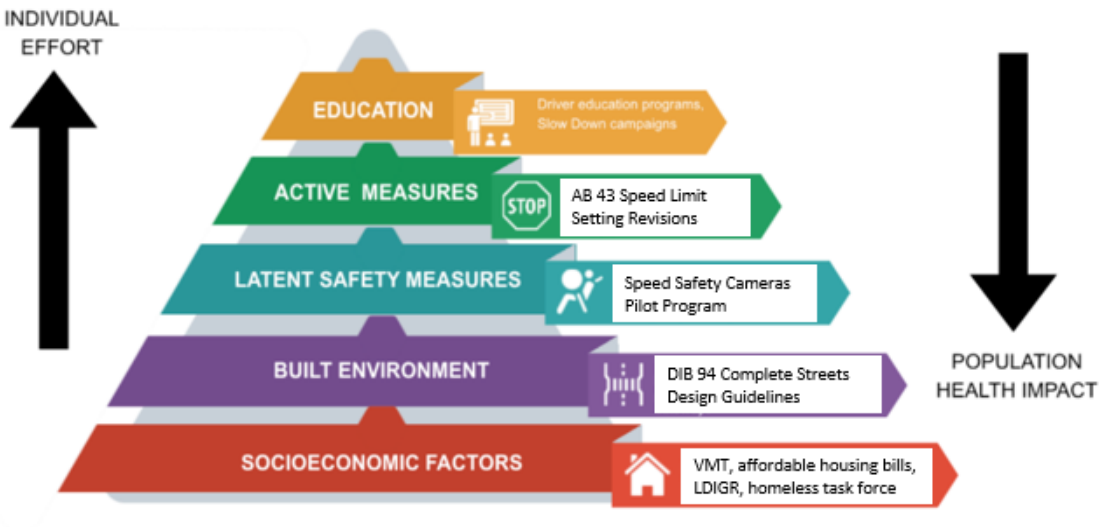
The report outlines a five-stage framework to speed management that is consistent with the Safe System Approach. The process begins with establishing a vision and building consensus within the community to manage speeds; the creation of a strategic safety plan, such as a Vision Zero plan or Local Roadway Safety Plan, can serve this purpose. Second, speed data should be collected and analyzed, which can help both guide the rest of the process and provide the backing to build public support. Third, locations for speed management should be prioritized proactively, taking into account both collision and speeding history as well as contextual factors (such as the presence of vulnerable users or traffic generators like schools and commercial areas). Countermeasures can then be selected for prioritized locations. Finally, ongoing monitoring and evaluation should be conducted to ensure efficacy and allow for flexibility and adjustment. The report also provides real-world case studies of how these principles were applied in practice.

FHWA Primer on Safe System Approach for Pedestrians and Bicyclists

The Primer, released by the FHWA in 2021, emphasizes the importance of protecting pedestrians and bicyclists, as vulnerable users, under the Safe System Approach. The Primer details the considerations surrounding pedestrians and bicyclists under each of the five elements of the Safe System Approach – Safe Speeds, Safe Roads, Safe Vehicles, Safe Road Users, and Post-Crash Care. It also provides strategies and actions that can be taken at the Federal, state, and local levels towards implementing the Safe System Approach. Also included is an appendix on benchmarking policies, programs, and practices for Safe System consistency. The benchmarking used for City of Sacramento is based on this benchmarking tool.

The Safe Systems Pyramid

The Safe Systems Pyramid is a new framework for traffic safety proposed in a 2023 paper by David Ederer of the Center for Disease Control (CDC), along with his co-authors Rachael Thompson Panik, Nisha Botchwey, and Kari Watkins, which adapts the Health Impact Pyramid framework into the Safe Systems Pyramid for roadway safety practitioners. Building on established public health practice, the Safe Systems Pyramid illustrates how interventions that have the largest reach and require the least personal effort will be the most impactful. In addition to identifying the kinetic energy transfer as the cause of injury, the Safe Systems Pyramid also relates energy to exposure. It explains how the many possible safety interventions differ in their effectiveness at reducing risk in the transportation system by prioritizing interventions that reduce exposure to kinetic energy transfer at the system level. Those that require more individual effort, such as driver education programs, have the least impact on improving system-wide safety. Meanwhile, those that change the quality of people's lives and the built environment in which they travel more broadly, such as affordable housing near transit, zoning reform, traffic calming, and limiting crossing distances at intersections, have the largest impacts on safety.



At the top of the Safe System Pyramid is education, which generally correspond to Tier 4 of the Safe System Hierarchy, and encompasses driver education programs and campaigns – for example, asking drivers to slow down and obey the speed limit. As the authors of the paper note, "the need to urge behavioral change is symptomatic of failure to establish contexts in which healthy choices are default actions," and education programs are thus considered to be most reliant on individual behavior and least effective in producing improvements.

Below education on the Pyramid are active and latent safety measures, which generally correspond to Tier 3 of the Hierarchy. Active safety measures encompass such countermeasures as warning signals and signs, as well as in-vehicle devices such as seatbelts and collision warnings. These safety measures are effective when used, but rely on individual opt-in (for example, for a driver to react to signage or to a collision warning) to function. Latent safety measures encompass countermeasures such as signal timing modifications such as leading pedestrian intervals (LPIs) that create redundancy, as well as vehicle features such as lane departure prevention and automated emergency braking. Latent measures are considered more effective than active measures, as they require less individual opt-in, but their efficacy is still limited by the fact that they are applied individually. For example, while automated braking is superior to a warning signal that warns the driver to manually brake, only those who choose and have the means to drive a vehicle with the feature will have access to this technology.

Further down on the pyramid is the built environment level, which corresponds to Tiers 1 and 2 of the Hierarchy, and refers to physical alterations to the roadway that promotes slower speeds, physically separate vulnerable users, and reduce the number of high-risk conflicts. Such interventions can also improve the experience for walking and biking, and reduce the number of vehicle trips by encouraging mode shift. Unlike the higher levels of the pyramid, changes to the environment creates contexts that encourage safer user behaviors (for example, narrower lanes that induce lower speeds), and are thus less dependent on active user participation and are more effective.

Finally, the socioeconomic factors level lies at the base of the pyramid. Typically, roadway safety interventions do not go beyond the roadway infrastructure, but today's safety outcomes are inexorably linked by socioeconomic factors of the places that our roadways serve. Across the country, communities of color and low-income communities are disproportionately exposed to the most dangerous roadways that feature high speeds, high traffic volumes, and outdated design and safety features. Moreover, many communities across the country also trapped by a lack of viable alternative transportation options as a result of car dependency, a crisis that is likely going to persist as the national phenomenon of the suburbanization of poverty continues. These are overarching socioeconomic factors that dictate urban form and the built environment, which in turn dictate safety outcomes. This category of interventions is often considered outside the traditional purview of transportation professionals, as they must come in the form of policy around land use, zoning, and economics that go beyond (but work in tandem with) transportation

policy. However, they also must be considered when attempting to address roadway safety, as these socioeconomic factors form the root causes of roadway safety issues.

The pyramid should be seen as a structure for prioritizing the roadway design and operations tools that will have the most impact for safety while also collaborating outside the safety silo with other agency and community stakeholders to engage in upstream and more wide-ranging root cause topics.

NCHRP 1036: Roadway Cross-Section Reallocation Guide

The National Cooperative Highway Research Program (NCHRP)'s Report 1036, the Roadway Cross-Section Reallocation Guide, was developed in 2023 as a tool for practitioners to use in the development of roadway cross-sections that better assess the tradeoffs that are involved in the allocation of the limited width of a roadway. The guide begins with the premise that roadway space is scarce, and trade-offs are inevitable, and provides guidance for planning roadway cross-sections that center community priorities

for that limited space. The guidelines also infuse Safe System considerations by establishing minimum floors for safety standards, such as the provisions of pedestrian and bike facilities and minimum widths for sidewalks and bike lanes. Finally, the guide discusses approaches for community engagement and operational analysis to facilitate the decision-making process consistent with the goals and minimum standards outlined in the guide. The guide also includes a companion Excel spreadsheet that can be used for new roadway and retrofit planning.

Documents Under Review: Sacramento General Plan 2040 Mobility Element

Note that this is not analyzing the 2018 VZ Action Plan, but the GP.

https://www.cityofsacramento.gov/content/dam/portal/cdd/Planning/adopted-2040-general-plan/2040%20GP_2-08_Mobility_Adopted.pdf

Policy Framework—Scoring

Safe System Principle	Safe System Approach in Policy	Alignment Score (1-15)	Level of Alignment	Justification	Discussion/Notes (Optional)
Death/Serious Injury is Unacceptable	**Does the policy identify the need to focus on eliminating fatal and serious injury crashes versus all crashes?'** - The policy should explicitly state "elimination" of fatal or serious injury crashes versus "reducing" crashes and integrate countermeasures or strategies that aim to eliminate fatal and/or serious injury crashes for all users. - The process for project identification and project prioritization should focus on fatal and serious injury crashes. - Leadership and administration support for eliminating fatalities and serious injury crashes is important to the integration of Safe System culture and should be explicitly stated in policy documentation.	14	**Integration**	"14" Partners and agencies receiving support from or working with the Safety Program are required to support the principle.	*Policy M-4.3: . The City shall utilize a data-driven, "vision zero" approach to eliminate all traffic fatalities and severe injuries by 2027, while increasing safety, health, and equitable mobility for all.*
Humans Make Mistakes	**Does the policy address human error in fatal and serious injury crashes? (i.e., does it evaluate the human factors related to the crashes)'** - The policy should acknowledge that human mistakes and errors, and that these should not result in fatalities or serious injuries. - Strategies for accommodating human errors and human behavior should be provided for all roadway users and user capabilities. - Human factors analysis and diagnosis are an important aspects of determining these mistakes and how they are likely to occur. - These should be included in policy-driven procedures and practices. Agency leadership and stakeholder support for accommodating human errors in potential fatal and serious injury crashes should be explicitly stated in the policy.	6	**Development**	"6" Agency has developed and finalized the plan to meet the requirement of addressing human error.	*Mentioned in the Element, but not within a policy: "It is inevitable that people will some times make mistakes, so the Vision Zero approach incorporates policies and design strategies to ensure those mistakes do not result in severe injuries or fatalities" (page 8-21)*
Humans are Vulnerable	**Does the policy account for crashes that have a higher likelihood of fatal or serious injury due to mode, speed, or angle of collision?** - The policy should identify risk characteristics that compound human mistakes throughout the network, including strategies for addressing vulnerable road user safety. - Resources and support for addressing these risks need to be identified as part of integrating Safe System culture into agency practices. - It is also important strategies and resources are focused on the need to reduce speed and utilize speed management strategies.	7	**Execution**	"7" Agency has started drafting language into the policy about vulnerability and reducing kinetic energy.	*Policy M-4.1 Application of Safety. "The City shall design, plan, and operate streets using complete streets principles to ensure the safety and mobility of all users."* *Policy M-4.2 Safer Driving Speeds: "The City shall work to maximize the safety of the transportation network by designing streets for lower driving speeds and enforcing speed limits in an unbiased manner as well as promoting safer driving behavior."*
Responsibility is Shared	**Does the policy embrace a multi-disciplinary and multi-jurisdictional team, implying that responsibility is shared and that prioritization is not only focused on one roadway type or only infrastructure improvements?** - The policy should address and highlight the understanding that zero can only be reached through a comprehensive approach and collaboration, explicitly identifying responsibilities and roles for implementing safety improvements and strategies. - This includes eligibility policies and procedures with a focus on addressing the greatest safety needs, regardless of jurisdiction. - The policy should also provide strategies beyond engineering and infrastructure and/or discuss collaboration with other agencies on supporting education, enforcement, and other behavioral strategies.	6	**Development**	"6" Agency has developed and finalized the plan the meet the requirement of collaboration across partners and discipline.	*Policy M-4.4 Collaborative Safety Solutions. "The City shall collaborate with educational institutions, senior living facilities, community organizations, and other interested parties when developing and implementing programs and improvements that increase safety and encourage the use of active transportation and transit modes."* *Policy M-4.5 Safety-Related Training. The City shall encourage ongoing transportation safety related training and support for City staff responsible for street design and transportation enforcement activities."*

Documents Under Review: Sacramento General Plan 2040 Mobility Element

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https://www.cityofsacramento.gov/content/dam/portal/cdd/Planning/adopted-2040-general-plan/2040%20GP_2-08_Mobility_Adopted.pdf

Policy Framework—Scoring

Safe System Principle	Safe System Approach in Policy	Alignment Score (1-15)	Level of Alignment	Justification	Discussion/Notes (Optional)
Safety is Proactive	**Does the policy proactively account for risks and behaviors that could lead to fatal and serious injury crashes?** - Policy language should proactively and explicitly call for elimination of roadway risks that lead are likely to lead to severe crashes, as well as identify strategies that proactively address emerging trends in crash types and behaviors, utilizing new and innovative education, enforcement, and vehicle technology. - These efforts utilize data-driven safety analysis, systemic analysis, and predictive methods as means of prioritizing investments. - They should also consider innovative contracting and resource allocation practices utilized to proactively address time and cost limitations.	13	**Integration**	"13" Agency has begun to integrate the requirement of systemic safety into their policies, but has not been full adopted.	*Implementing Action M-A.1: Transportation Investment Priorities. "The City shall use the Transportation Priorities Plan in conjunction with the General Plan update ensuring the outcomes align with the General Plan goals."* *Implementing Action M-A.3: High Injury Network. "The City shall continue to annually assess progress toward the adopted actions of the Vision Zero Action Plan and, as warranted, update the High Injury Network and associated intervention priorities."* *Implementing Action M-A.7: Roadway Reallocations. "As funding is available, the City shall study implementation of roadway reallocations to prioritize walking, bicycling, and transit use in the locations shown on Map M-1 as well as other locations that align with the Transportation Priorities Plan and are determined to be appropriate for reallocation. Preparation of the studies will provide opportunities for community input and feedback on streetscape design."* *Implementing Action M-A.9: Transportation Demand Management (TDM) Ordinance. "The City shall update the existing Transportation Systems Management Program requirements in the City Code to promote wider adoption of transportation demand management strategies. The update should include a fee structure to support staffing for regular monitoring/reporting and provide for enforcement with meaningful penalties for non-compliance."* *Implementing Action M-A.10: Street Design Standards Update. "The City shall*
Redundancy is Crucial	**Does the policy integrate multi-faceted approaches to safety to ensure that if one element fails, that others support the system?** - The policy and strategies should highlight layers of protection using safe road users, safe speeds, and safe roads elements, as well as documented strategies or collaboration to highlight additional layers of protection using safe vehicles and post-crash care elements. - This is important to include in the policy to protect users when one level fails or mistakes are made. - Evaluation practices that promote the benefits of safety approaches outside infrastructure improvements should also be explicitly documented.	14	**Integration**	"14" Agency has adopted the policy but has not fully integrated the redundancy is crucial practices outside of safety.	*In consideration of policies above and current City operations, redundancy is being reinforced, though not necessarily stated distinctly in policy.*
Equity	**Does the policy consider equity (e.g., that all users are provided the tools to experience the transportation system equally)** - The policy should prioritize communities and users of the transportation network impacted disproportionately by safety challenges, including the solicitation of input from disproportionately impacted communities and users. - Strategies for addressing inequities in transportation safety investments for all users, including negative impacts from historic investments, should be provided. - Also, eligibility policies and procedures should focus on addressing the greatest safety needs, regardless of location or user type.	14	**Integration**	"14" Agency has adopted the policy but has not fully integrated equity outside of the agency.	*Equity mentioned in the Circulation Element Safety section, (e.g., "the proportion of serious injury or death to residents of disadvantaged communities is notably higher than in other parts of the city" (pg 8-21) but no direct policies in support of prioritizing communities.* *GP does link to Transportation Priorities Plan in Implementing Action M-A.1, which covers this.* *Still giving a high ranking based on current plan and practice.*

Safe System Alignment Policy Score:

74/105