



Planning & Transportation Commission Staff Report

From: Philip Kamhi, Chief Transportation Official
Lead Department: Office of Transportation

Meeting Date: October 11, 2023
Report #: 2309-1975

TITLE

STUDY SESSION: Safe Streets for All (SS4A) Action Plan & Safe Systems Approach Introduction

RECOMMENDATION

Recommend that PTC receive a report on the Safe Streets for All (SS4A) Safety Action Plan and the Safe Systems Approach.

EXECUTIVE SUMMARY

Improving safety for all road users is a constant need in Palo Alto and one that will require the City to assess existing conditions and prioritize actions to proactively address locations and situations that are associated with the highest risk for severe injuries and fatalities. The City intends to follow the Safe System Approach for this assessment and action items to follow.

The Safe System Approach is a transportation system safety strategy to eliminate fatal and severe injury crashes on roadways. The Safe System Approach is promoted by the federal, state, and regional transportation organizations. This approach identifies traffic safety as the highest priority for the design and operation of the transportation system and views traffic fatalities and severe injuries as unacceptable and preventable through joint action. The Safe System Approach is the foundation for the National Safety Strategy released by USDOT in 2022.¹ Caltrans has also adopted both a Safe System Approach and a Vision Zero goal in roadway safety planning across California.²

Several state and federal funding sources now require adoption of roadway safety action plans or Vision Zero plans to ensure funding for transportation projects that prioritize safety for all road users. In June of 2023, the City executed a Safe Streets for All (SS4A) grant agreement with the Federal Highway Administration (FHWA) to develop a safety action plan informed by the Safe System Approach.³ This planning effort will assist in identifying and prioritizing safety

¹ <https://www.transportation.gov/nrss/usdot-national-roadway-safety-strategy>

² <https://dot.ca.gov/news-releases/news-release-2022-009>

³ [June 19, 2023 Council item #35, CMR 2305-1525](#)

projects and programs in Palo Alto. Completion of this grant-funded project will also enable the City to apply for subsequent SS4A Implementation Grants as well as other funding programs, such as the State's Highway Safety Improvement Program (HSIP).

BACKGROUND

The 2017 Palo Alto Comprehensive Plan Policy T-6.2 states the community goal to reduce fatal and severe injuries on local roadways to zero. This concept of "Vision Zero" includes a multi-modal focus and has come to fore nationally and regionally since the 2012 adoption of the City's Bicycle and Pedestrian Transportation Plan. In June 2020, the Metropolitan Transportation Commission (MTC) adopted the first Regional Vision Zero policy under Resolution 4400 and formed a Vision Zero working group to advance regional Vision Zero safety efforts. In June 2023, the Valley Transportation Authority (VTA) adopted a strategy for the Valley Transportation Plan 2050 to eliminate pedestrian and bicycle severe injuries and traffic deaths as part of its goal to prioritize active transportation to encourage healthier multimodal options.⁴

Meeting this safety objective will require a cooperative, multi-sector and multi-jurisdictional effort, built on the Safe System Approach (Attachment 1). The Safe System Approach addresses the safety of all road users and prioritizes roadway safety through acknowledgement of these six principles:

1. Death and serious injury are unacceptable
2. Humans make mistakes
3. Humans are vulnerable
4. Responsibility is shared
5. Safety is proactive
6. Redundancy is crucial

The approach requires elements that remove stakeholders from silos and create critical collaboration and coordination opportunities. These include:

- Safe Road Users
- Safe Vehicles
- Safe Speeds
- Safe Roads
- Post-Crash Care

For many jurisdictions, the Safe System Approach represents a fundamental shift in how safety is viewed, discussed, and prioritized. These shifts, as shown in the graphic below, refocus safety practices to anticipate human mistakes and reduce crash severity by lessening the impact to the human body:

⁴ [June 1, 2023 VTA Board item 6.12](#)

Traditional

Safe System

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

DISCUSSION

To advance the goal of improving roadway safety for all modes in Palo Alto and to support the requirements of the SS4A grant, Fehr & Peers, a transportation consulting firm with expertise in safety planning, will assist city staff in developing a safety action plan, entitled Safer Palo Alto, over the next year. This effort will be data-driven and complement the recent Local Roadway Safety Plan (LRSP)⁵ completed by VTA for Palo Alto by adding robust community engagement and an equity analysis that was not included in the LRSP, as well as a review of opportunities to institutionalize safety within the City's policies, programs, and practices. A list of the required SS4A safety action plan components can be found [here](#).⁶

While meeting requirements for funding is important, the primary goal of this planning effort is to identify opportunities across the Safe System elements to improve safety in support of the Vision Zero goal of reducing roadway fatalities and serious injuries to zero by 2030 or a different target year to be adopted by the City. This study session is intended for the Commission to give input into the target year in order to determine funding levels and urgency applied to Plan implementation.

The City's Safety Action Plan includes the following activities:

1. An assessment of the City's current policies, plans, guidelines, and/or standards to align with the Safe System Approach and identify opportunities to improve how processes prioritize safety
2. An analysis of safety data to understand historic collision trends including the number of fatal and severe injury crashes from 2018 to 2022. This includes analysis of crash locations, the severity, contributing factors, and crash types while identifying higher risk locations and a high injury network that highlights the portions of the City's roadway network responsible for disproportionate numbers of collisions
3. A project website and data dashboard to highlight results of the collision data analysis and host links to an outreach survey and interactive map

⁵ [Local Road Safety Plan for Palo Alto and other cities, September 2022](#)

⁶ [US Department of Transportation, SS4A Action Plan Components](#)

4. A survey of community preferences regarding safety improvements that will help inform the project list and safety strategies
5. An equity analysis to understand how collisions may be impacting different population groups
6. Development of a list of projects and strategies for the Safety Action Plan
7. A description of how plan progress will be measured over time and resource needs for ongoing data collection and analysis

FISCAL/RESOURCE IMPACT

On June 19, 2023, Council approved (CMR 2305-1525 as referenced above) the funding agreement with FHWA and the related budget amendment to the Fiscal Year 2024 Adopted Capital Budget for the Transportation and Parking Improvements Project (PL-12000) to increase the revenue and expense appropriation by \$160,000 to reflect the grant revenue and project cost, respectively. The additional \$40,000 in project cost, which is the 20% City match portion required in the funding agreement, will be absorbed from the same project (PL-12000), as a part of the FY2024 Adopted Capital Budget. No additional budgetary action is required for the City match obligation.

STAKEHOLDER ENGAGEMENT

Community engagement is a required element of any SS4A Safety Action Plan receiving federal grant funding. The City is engaging the public in plan development through an online survey, interactive mapping, in-person tabling at two community events, and via the City's communication channels. Much of this engagement will be coordinated with the concurrently scheduled Pedestrian and Bicycle Plan Update. The City will engage the Planning and Transportation Commission, the Pedestrian and Bicycle Advisory Committee, and the City/School Traffic Safety Committee, which is a historic partnership between City Departments. The City will also engage the Palo Alto School District and the Palo Alto Parent Teacher Association Council.

TIMELINE

Palo Alto Safety Action Plan Timeline (subject to change)

DATE	TASK
October 1, 2023	Community Outreach Event at Bike Palo Alto!
October 2023	Document existing safety practices, policies, standards
October 2023	Committee Meetings (PTC, PABAC, CSTSC) to introduce project and announce community survey. Will return to Committees with results from the collision analysis in January-February 2024.
Late October/Early November 2023	Informational Report to Council to introduce project

September – November 2023	Analyze collision data, identify collision profiles, map High-Injury Network
December-January 2024	Equity Analysis
January-February 2024	Committee Meetings to review collision analysis and High-Injury Network. We will return to Committees to review project list and the Safe System Toolbox in May 2024.
December – March 2024	Develop project list and Safe System Toolbox
March – May 2024	Document progress measures and outcome data for ongoing monitoring and data collection
May 2024	Community Engagement Event (May Fete) & Standing Committee Meetings to review project list and Safe System Toolbox. Will return to Committees in October to share draft safety action plan.
July-August 2024	Draft Vision Zero Action Plan Review
September – November 2024	Council & Committee Meetings Final Plan Adoption

ENVIRONMENTAL REVIEW

This study session is not a project as defined by CEQA because it does not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment. CEQA Guidelines section 15378(b)(4).

ATTACHMENTS

Attachment A: FHWA Safe System Approach Brochure⁷

AUTHOR/TITLE:

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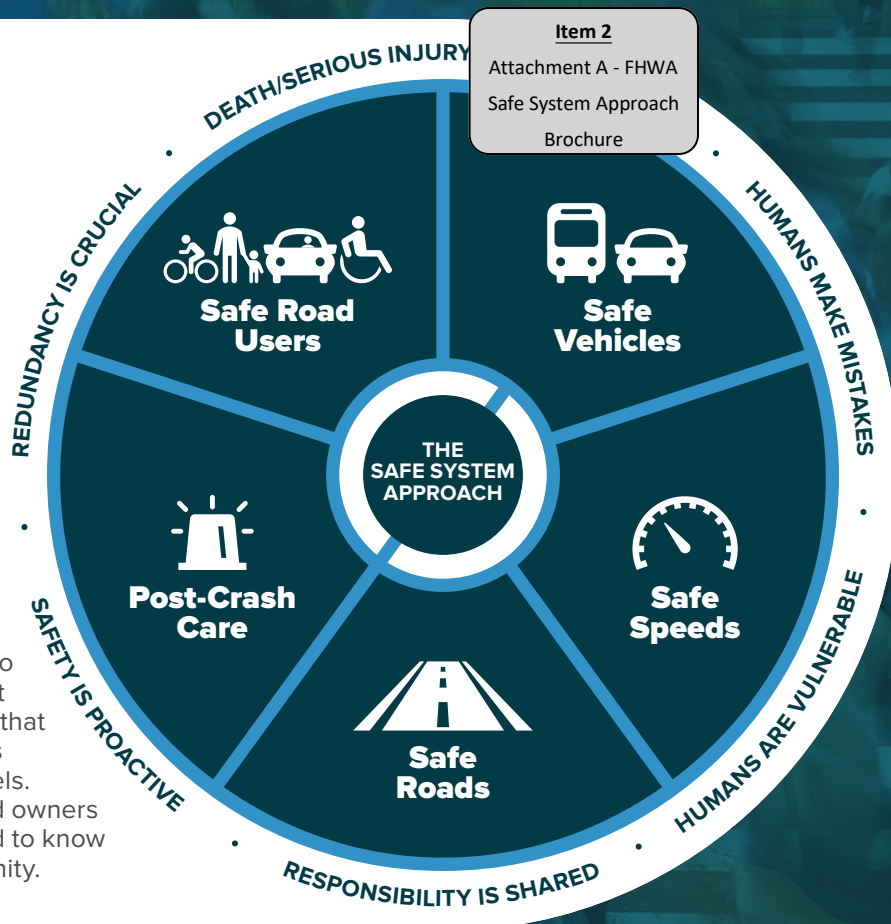
⁷ [FHWA brochure, The Safe System Approach, FHWA-SA-20-015](#)

THE SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes. The Safe System approach aims to eliminate fatal & serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Here's what you need to know to bring the Safe System approach to your community.



Item 2
Attachment A - FHWA
Safe System Approach
Brochure

SAFE SYSTEM PRINCIPLES



Death/Serious Injury is Unacceptable

While no crashes are desirable, the Safe System approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.



Responsibility is Shared

All stakeholders (transportation system users and managers, vehicle manufacturers, etc.) must ensure that crashes don't lead to fatal or serious injuries.



Humans Make Mistakes

People will inevitably make mistakes that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.



Safety is Proactive

Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterwards.



Humans Are Vulnerable

People have limits for tolerating crash forces before death and serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.



Redundancy is Crucial

Reducing risks requires that all parts of the transportation system are strengthened, so that if one part fails, the other parts still protect people.



U.S. Department of Transportation
Federal Highway Administration

FHWA-SA-20-015

Packet Pg. 13

Our Future
investment in roadway safety saves lives

Making a commitment to zero deaths means addressing every aspect of crash risks through the elements of a Safe System, shown below. These layers of protection and shared responsibility promote a holistic approach to safety across the entire transportation system. The key focus of the Safe System approach is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances.



Safe Road Users

The Safe System approach addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes.



Safe Vehicles

Vehicles are designed and regulated to minimize the occurrence and severity of collisions using safety measures that incorporate the latest technology.



Safe Speeds

Humans are unlikely to survive high-speed crashes. Reducing speeds can accommodate human injury tolerances in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.



Safe Roads

Designing to accommodate human mistakes and injury tolerances can greatly reduce the severity of crashes that do occur. Examples include physically separating people traveling at different speeds, providing dedicated times for different users to move through a space, and alerting users to hazards and other road users.



Post-Crash Care

When a person is injured in a collision, they rely on emergency first responders to quickly locate them, stabilize their injury, and transport them to medical facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident management, and other activities.

THE SAFE SYSTEM APPROACH VS. TRADITIONAL ROAD SAFETY PRACTICES

Traditional

- Prevent crashes —————> Prevent deaths and serious injuries
- Improve human behavior —————> Design for human mistakes/limitations
- Control speeding —————> Reduce system kinetic energy
- Individuals are responsible —————> Share responsibility
- React based on crash history —————> Proactively identify and address risks

Safe System

Whereas traditional road safety strives to modify human behavior and prevent all crashes, the Safe System approach also refocuses transportation system design and operation on anticipating human mistakes and lessening impact forces to reduce crash severity and save lives.

WHERE ARE
YOU ON THE
SAFE SYSTEM
JOURNEY?

Implementing the Safe System approach is our shared responsibility, and we all have a role. It requires shifting how we think about transportation safety and how we prioritize our transportation investments. Consider applying a Safe System lens to upcoming projects and plans in your community: put safety at the forefront and design to accommodate human mistakes and injury tolerances. Visit safety.fhwa.dot.gov/zerodeaths to learn more.