



Seattle Department of Transportation

Vision Zero Top to Bottom Review Full Report July 28, 2023

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A Note to Readers

Mayor Bruce Harrell and Executive General Manager Adiam Emery asked SDOT Director Greg Spotts to prioritize safety in the department's work. To implement this prioritization, Director Spotts commissioned an expedited "top to bottom" review of SDOT's Vision Zero program to help understand why serious injuries and deaths on Seattle streets are on the rise, and to identify opportunities for improvement.

This draft was prepared by staff who do not work within the Vision Zero team and is being shared now in order to engage with City Council, the Transportation Equity Workgroup, several City boards and commissions, and interested members of the community. Feedback from this engagement will help shape the final report, and it will also help inform SDOT's Vision Zero Action Plan update, Seattle Transportation Plan development, and other efforts in 2023.

This review focuses on how SDOT can more effectively deliver safety interventions with demonstrated effectiveness in the locations where they are most needed. It does not evaluate or provide recommendations on specific projects or locations, nor does it attempt to fully assess the potential cost and staffing impacts of recommendations. All recommended strategies and tactics are intended to inform further work to align funding, policies, procedures, and activities within a Safe Systems framework to support Vision Zero.

SDOT wants all readers to engage with the agency on what's presented here and ways to implement Vision Zero in Seattle.

Executive Summary

Vision Zero is Seattle's plan to end traffic deaths and serious and serious injuries on city streets by 2030. It's also an international transportation safety movement, shifting how we approach safety to focus on the most effective ways to reduce harm and move toward a culture of care and dignity for everyone who uses Seattle streets. The Seattle Department of Transportation (SDOT) adopted the goal of ending traffic deaths and serious injuries in 2012 through the Road Safety Summit Action Plan and formally launched its [Vision Zero program](#) in 2015 to organize and strengthen the effort.

SDOT's Vision Zero program is moving toward the United State Department of Transportation's [Safe System](#) approach as a guiding framework. To assess SDOT's alignment with the Safe System approach and the effectiveness of current Vision Zero efforts we reviewed existing documentation and reports, identified challenges and opportunities with existing programs and projects, and interviewed dozens of key SDOT and partner agency staff. We drew on extensive existing research by SDOT's Vision Zero program and peer agencies across the country on the effectiveness of safety interventions and countermeasures. And we reviewed a significant amount of feedback that SDOT has received through many recent efforts to collect thoughts, suggestions, and opinions from the community regarding safety.

Vision Zero is the center of SDOT's work to make our streets safer and aligns with other SDOT core values – to make Seattle more equitable, more sustainable, and climate-friendly. SDOT and community members in the Transportation Equity Workgroup co-created a Transportation Equity Framework (TEF) to guide efforts to make our work more equitable. Safety and transportation justice are core values of the TEF. This review aims to build on the TEF and work underway to implement it. Concurrently with this

V review, SDOT is also developing a Climate Emergency Response Framework (CERF) to strengthen SDOT's response to the climate emergency. Many strategies that support a climate-friendly future align closely with Vision Zero.

What we found

We found that safety interventions and countermeasures used by SDOT to advance Vision Zero make our streets safer. We also identified dozens of potential opportunities to improve SDOT's Vision Zero efforts - by strengthening policies and improving policy implementation, streamlining decision-making, improving project delivery, and moving more quickly toward broader implementation of proven interventions where they are most needed.

Key Recommendations

- **Incorporate Vision Zero and Safe Systems approaches into every project and program**
- **Adopt clearer and stronger guidance for facility design**
- **Clarify and streamline internal decision pathways**
- **Be willing to reduce vehicle travel speeds and convenience to improve safety**
- **Implement iterative, ongoing improvements to our infrastructure**
- **Accelerate planning for broader or systemwide implementation of proven interventions**
- **Secure funding to incorporate Vision Zero improvements in all projects and for asset maintenance**
- **Complete racial equity analysis of automated enforcement. Address inequities and where appropriate, use automated enforcement as a tool**
- **Shift culture and strengthen support for Vision Zero throughout SDOT**
- **Strengthen and resource SDOT's Vision Zero core and matrix teams**
- **Improve SDOT's customer service response process**
- **Be champions for Vision Zero as we engage with WSDOT, the Port of Seattle, transit partners, the legislature, and other organizations**

How we recommend SDOT use this report

This report is neither the beginning nor the end of SDOT's Vision Zero work. Our recommendations are intended to spur action to make SDOT more effective in delivering Safe Systems and Vision Zero outcomes, and to provide an important input into SDOT's upcoming update of the Vision Zero Action Plan. The recommendations in this report should also be used to inform future budget processes and organizational planning to improve overall alignment with Vision Zero.

As we publish this draft report for public review, we plan to present the report to and engage with the Seattle City Council, SDOT's Transportation Equity Workgroup, and several City boards and commissions. Feedback from this engagement will be summarized in the final report to provide additional input for SDOT's Vision Zero Action Plan update, Seattle Transportation Plan development, and other efforts in 2023 and beyond.

1. Introduction and background

What is Vision Zero?

Vision Zero is Seattle's plan to end traffic deaths and serious injuries on city streets by 2030. It's also an international transportation safety movement, shifting how we approach safety to focus on the most effective ways to reduce harm and move toward a culture of care and dignity for everyone who uses Seattle streets.

The Seattle Department of Transportation (SDOT) adopted the goal of ending traffic deaths and serious injuries in 2012 through the Road Safety Summit Action Plan and formally launched the Vision Zero program in 2015 to organize and strengthen the effort.

Key principles of Vision Zero include:

- Traffic deaths and injuries are preventable. Crashes or collisions are not “accidents.” They are preventable and often occur as a result of the way our transportation system has been designed – for the fast, uninterrupted movement of motor vehicles.
- Humans make mistakes and are vulnerable and fragile. When we say “most vulnerable,” we mean people who are not protected by a vehicle – people walking, rolling (using a wheelchair or other mobility device), biking, scooting, or riding a motorcycle.
- Success does not hinge on individual behavior, but on the design of a safe system. To reach Vision Zero, we need to re-imagine and change our street designs to encourage slower speeds, reduce conflict points between travelers, and focus on the safety of the most vulnerable.

Vision Zero's bold goal – to eliminate all traffic fatalities and serious injuries on our streets – may seem unachievable to some. We believe that deaths and serious injuries resulting from traffic crashes are unacceptable and hold this vision as our north star and a goal to measure our progress. We continue to push to achieve Vision Zero by 2030.

Purpose of this Vision Zero top to bottom review

While Seattle's streets are some of the safest in the United States, we still see more than 10,000 crashes a year, resulting in an average of 28 people losing their lives and 180 people seriously injured. These are our friends, neighbors, and family members.

SDOT has implemented many projects and programs to advance Vision Zero, with measurable reductions in the frequency and severity of crashes at project locations. Despite these efforts, deaths and serious injuries on Seattle streets trended upward in 2020, 2021 and 2022. In particular, pedestrian fatalities have been on an upward trend.

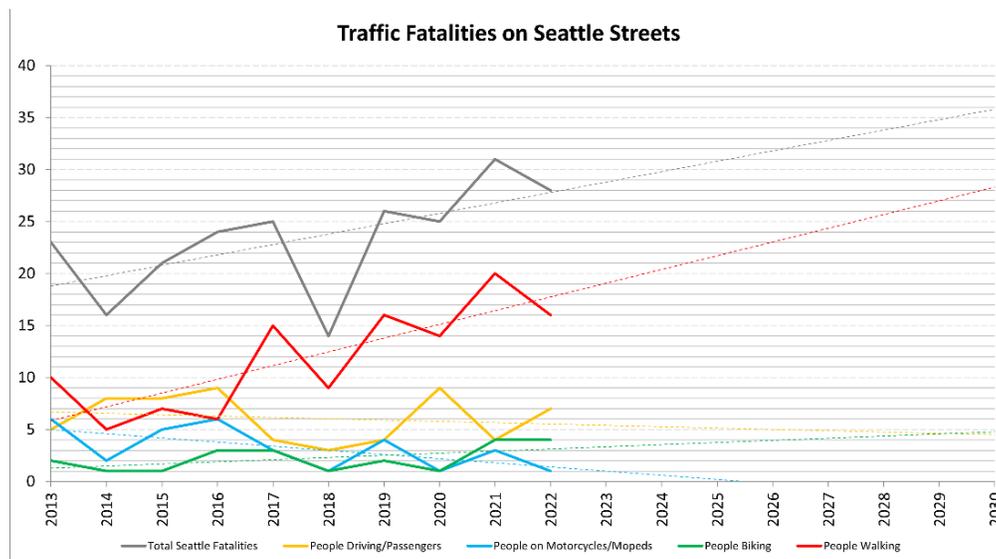


Figure 1: Chart showing traffic fatality trends in Seattle by mode of transportation, 2013-2022. Source: SDOT Vision Zero

When Greg Spotts was appointed SDOT Director in September 2022, he called for a “top to bottom” review of Vision Zero efforts as his first order of business to help understand why serious injuries and deaths on Seattle streets are on the rise, and to identify opportunities for improvement. He asked for the review to be exhaustive in scope and to be done quickly - by early 2023.

National trends and context

Cities and peer agencies around the country are wrestling with the same questions and concerns as Seattle. Our understanding of the problems – and of effective approaches to address the problems – is rapidly evolving in the transportation safety profession. This review provides a snapshot in time of what’s working and not working in our community. SDOT’s Vision Zero team has strong connections with peer agencies through the National Association of City Transportation Officials (NACTO), the Vision Zero Network, and other organizations, and will continue to review and incorporate best practices.

Part of the challenge is that the United States is an outlier among wealthier nations – one of the few experiencing increases in transportation fatalities over the past few decades, and, notably, since the pandemic began. Nationwide we’ve also seen crash, fatality, and injury rates diverge between people inside vehicles (as personal vehicles became safer for the driver and passengers) and people outside vehicles - especially people walking, biking, and rolling.

These trends confirm the effects of long-standing, national policies and priorities favoring personal driving over active and public transportation modes; the effects of larger and more powerful cars and trucks; and the reality that undoing a century of vehicle-focused city planning and street design toward people-focused design is perhaps our greatest challenge.

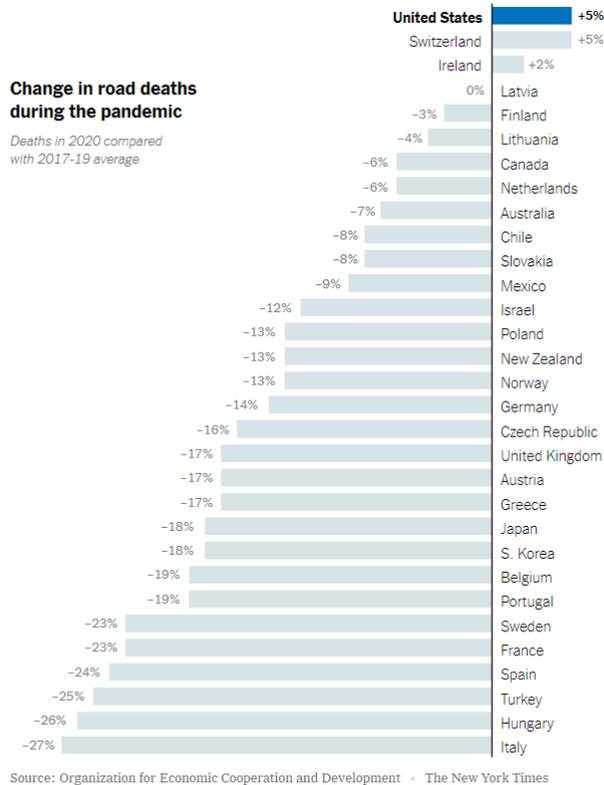


Figure 2: Chart showing traffic fatality trends by country in 2020 compared to prior years.

Traffic deaths in the United States increased during the pandemic, in contrast to decreases in most other wealthy peer countries. This national trend is headed in the wrong direction and gives Seattle an impetus to find local, actionable approaches to reverse the trend. We cannot assume a national shift is or will be happening in the near-term. Source: OECD data visualized by The New York Times

This review also considers changes experienced across the country since the onset of the COVID-19 pandemic. In 2020, although the total number of crashes in Seattle and nationwide went down, the frequency of severe crashes in many jurisdictions increased. While the exact factors that led to this uptick are still being studied, these changes highlighted some of the entrenched challenges we have with the design of our streets. [The pandemic alone did not cause an increase in serious and fatal collisions, but highlighted the work we must do to get to safer streets.](#)

Grounding this work in other SDOT core values: Equity and sustainability

Vision Zero is the center of SDOT’s work to make our safe streets safer and aligns with other SDOT core values – to make Seattle more equitable and more sustainable and climate-friendly.

SDOT established a Transportation Equity Workgroup (TEW) in 2019 to seek input from a broad and diverse set of community members representing Black, Indigenous, and People of Color (BIPOC) and vulnerable communities. Working with the TEW, SDOT co-created a [Transportation Equity Framework](#) (TEF) to guide efforts to make our work more equitable. Safety and transportation justice are core values of the TEF. This review aims to build on the TEF and work underway to implement it. The TEF includes strategies and tactics related to safety and Vision Zero, including specific tactics to address historical inequities with traffic enforcement and automated enforcement.

Drawing from SDOT's equity work, our review also aims to build on the framework of [targeted universalism](#), which means setting universally applicable goals, paired with targeted approaches to move toward those goals. In particular, this framework is used to make the case for centering people who are most impacted by past policy choices or those who are most vulnerable in our current system. By centering youth, elders, and people with disabilities in how we think about safety, we can design a system that is safer for everyone. This may require people to accept new paradigms for how streets function – sometimes compromising speed and convenience to make streets safer for everyone.

Concurrently with this review, SDOT is developing a Climate Emergency Response Framework (CERF) to strengthen SDOT's response to the climate emergency. Many strategies that support a climate-friendly future align closely with Vision Zero. Specifically, both seek a stronger, safer active transportation and transit network and the strategies to achieve this outcome are generally the same – reducing personal vehicle trips and providing safe, connected, and reliable active transportation and transit options.

Other guiding frameworks: Safe System Approach and Hierarchy of Controls

Traffic safety and Vision Zero programs have historically relied on “the three E's” – engineering, education, and enforcement – to guide their actions. SDOT's Vision Zero program is evolving beyond that approach and toward a new approach championed by the United States Department of Transportation (USDOT) called the [Safe System Approach](#). The goal of Safe System Approach is to build multiple layers of protection to reduce crashes and minimize harm.

The Safe System Approach identifies five guiding principles and five objectives. In the graphic below, the guiding principles listed around the outside of the circle and the objectives are shown as slices within the circle. As a local department of transportation, SDOT is largely focused on two of the five objectives: safer roads and safer speeds. These are traditionally areas where we have more direct control as an agency. The [SDOT Response Team](#) contributes to post-crash care. SDOT works in partnership with other agencies and organizations to take a holistic approach to addressing all Safe System Approach objectives. We used this framework in our review, and support SDOT using it to guide future Vision Zero efforts.



Figure 3: Safe System Approach Diagram. Source: US Department of Transportation

To understand the effectiveness of Vision Zero interventions, we also used the Centers for Disease Control and Prevention (CDC) [Hierarchy of Controls](#). We know that traffic deaths and injuries are a public health concern and believe applying this CDC framework can help understand how to make our streets safer. In the context of Vision Zero, we recognize that vehicles pose a hazard to people walking, biking, and rolling, as well as for people in vehicles.

We also recognize that motor vehicles play an important or even essential role for many people, and that freight movement by trucks is a key part of our supply chain and economy. The hierarchy of controls tells us that the most effective options, however, are eliminating the hazard, as well as providing replacements, called substitution. SDOT and partner agencies invest in options that can be substituted for car travel.

The majority of SDOT’s work on Vision Zero falls under engineering controls (i.e., street design) and administrative controls (i.e., regulating speed limits and enforcement). CDC’s framework also suggests that layering of these types of interventions can improve effectiveness.

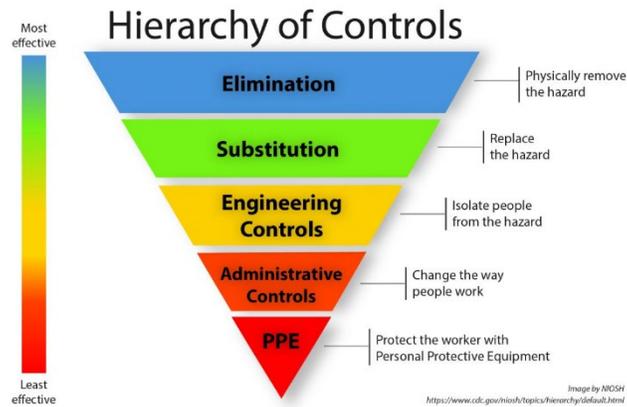


Figure 4: Hierarchy of Controls diagram. Source: Centers for Disease Control and Prevention

2. Review of existing programs, conditions, and sources of information

Throughout its history, SDOT (and the Seattle Engineering Department that preceded it) has focused on safety. What safety means to us has evolved as our Vision Zero programs have developed. Meanwhile, engineering standards continue to evolve to prioritize safety rather than focusing on vehicle throughput and travel time.

Over the years, SDOT implemented many projects to make our streets safer and more human-centered. SDOT has received national recognition for its Vision Zero work such as the [US Vision Zero for Youth Leadership Award](#) from the National Center for Safe Routes to School in 2022. We want to acknowledge the years of care and work that have gone into these efforts.

How SDOT is currently organized to deliver Vision Zero

SDOT currently has a small group of staff in the Project Development Division (PDD) dedicated to leading Vision Zero efforts for the department. SDOT's Transportation Operations Division (TOD) staff, including the City Traffic Engineer, are key resources, working closely with the Vision Zero core team and other SDOT divisions to develop and implement projects and programs supporting Vision Zero. Like many SDOT programs, every division in SDOT contributes to Vision Zero in some way and staff are "matrix" resources to the program, which means they may not directly report to the Vision Zero team, but are committed to advancing Vision Zero.

Projects and programs contributing to Vision Zero

Vision Zero tools focus on reducing vehicle speeds and reducing or eliminating conflicts between people using the right-of-way. The Safe Systems framework and Hierarchy of Controls provide general guidance regarding effective interventions, and the Federal Highway Administration (FHWA) has also identified [proven countermeasures](#).

Actions SDOT's Vision Zero and other SDOT programs have taken to improve safety include:

- Developing robust data-driven research, analysis, and planning;
- Reducing speed limits citywide;

- Redesigning arterial streets to reduce speeds, including reducing general purpose travel lanes;
- Implementing leading pedestrian intervals, which allow people crossing at signalized intersections to get a “head start” on vehicles;
- Implementing “no turn on red” restrictions and signage;
- Enhancing pedestrian crossings with marked crosswalks, signage, flashing beacons, and refuge islands;
- Implementing signal timing improvements to allow more time for people to cross the street, or to help manage vehicle speeds;
- Increasing visibility at intersections by installing curb bulbs, “no parking” signage, or traffic delineators such as plastic wands and Tuff Post;
- Adding “hardened centerlines,” which are an extruded curb lane delineation, at intersections to direct and slow turning vehicles;
- Building and repairing sidewalks and pedestrian pathways;
- Building protected bicycle lanes;
- Adding speed humps and cushions;
- Implementing program-based interventions, such as the Safe Routes to School, Neighborhood Greenways, and Home Zone programs, which deploy a variety of the measures in priority corridors or areas;
- Providing funding and staffing support for implementation of measures as part of other capital projects, including Arterial Asphalt and Concrete paving and Transit Plus Multimodal Corridor projects; and,
- Collecting data and performing analysis to support prioritization of the above improvements.

How SDOT uses data to support Vision Zero

SDOT's Vision Zero and bicycle and pedestrian programs have collected and analyzed a large amount of data to drive safety decisions. Our data show that more crashes – especially serious crashes – occur on arterials than neighborhood streets. SDOT analysis shows 93% of pedestrian fatalities occur on arterials, and 80% of those fatalities were on arterials with more than one lane in each direction. Our data also show that 80% of people killed while biking were biking where no bike facility was available. These charts show data from 2015 through 2022.

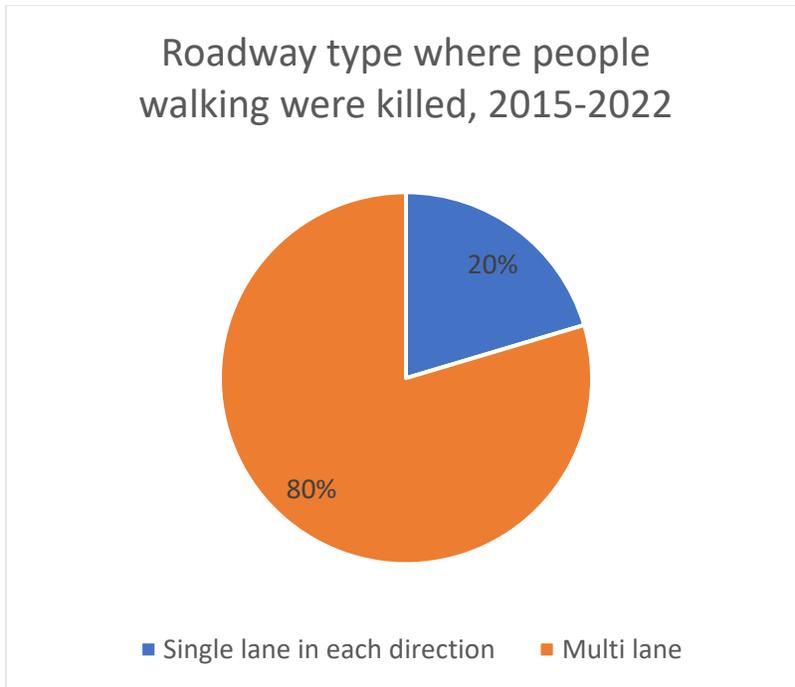


Figure 5: Chart showing roadway types where pedestrian fatalities occurred. Source: SDOT Vision Zero

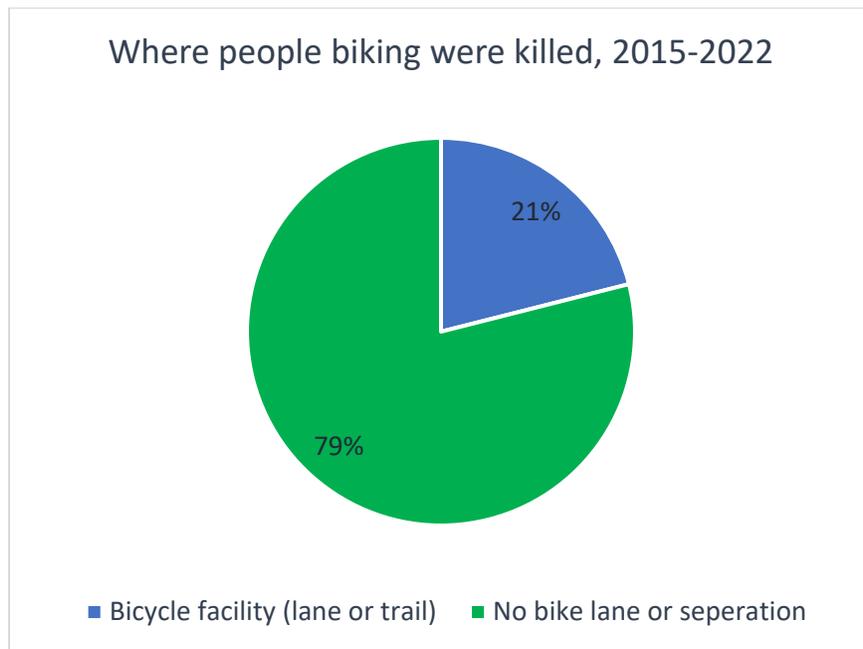


Figure 6: Chart showing bicycle fatality locations by availability of bicycle facility

Key examples illustrating SDOT’s use of data include:

- [Bicycle and Pedestrian Safety Analysis \(BPSA\)](#) – Uses statistical models to estimate the risk of incidents based on multiple land use and transportation input variables. The model predicts risks even where there have not been many documented crashes. The BPSA helps SDOT be more proactive in intersection-level safety work and also helps identify higher risk corridors.

Two phases of this analysis have been completed – most recently in 2020 – and a third phase is underway. Each phase has added data and improved statistical methods to help refine our understanding of higher risk areas for people walking, rolling, and biking. The BPSA also prioritizes locations by Council district for bicycle and pedestrian investments.

FIGURE 14: TOP 20 PRIORITY PEDESTRIAN LOCATIONS PER COUNCIL DISTRICT

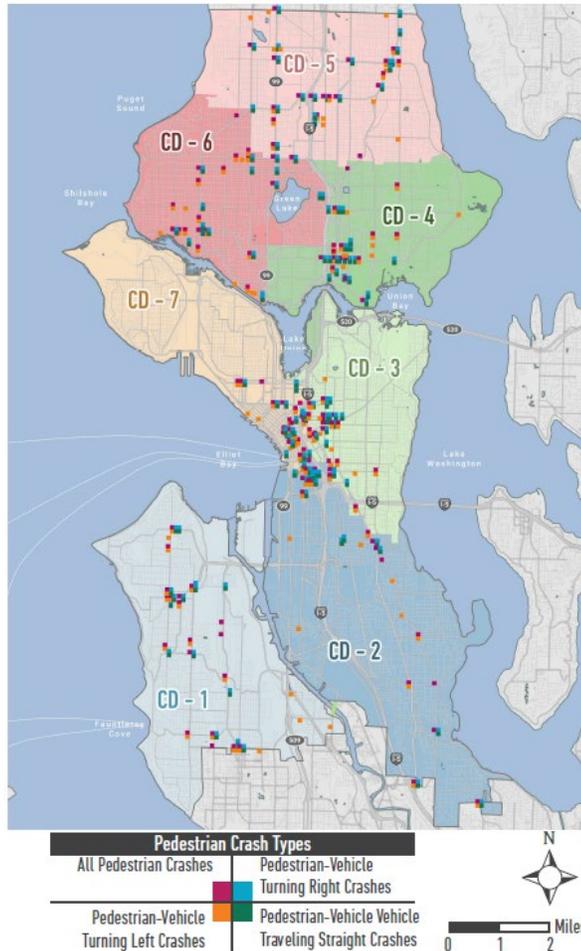


Figure 7: Map showing Top 20 Priority Pedestrian Locations per Council District.
 Source: SDOT Bicycle and Pedestrian Safety Analysis, Phase 2

- [High Injury Network \(HIN\)](#) (see slide 14) – Uses a simpler model to show where the highest number of serious injury crashes occur based on the density of total collisions and fatal and serious injury collisions. SDOT uses the HIN to prioritize corridor-level work. The national non-profit Vision Zero Network [recommends that all cities adopt HINs](#) to focus limited resources on the corridors where people have been the most harmed. SDOT’s 2022 HIN uses the Office of Planning and Community Development’s [Race and Social Equity Index](#) as the primary prioritization criteria.



Figure 8: 2022 High Injury Network. Source: SDOT Vision Zero

- **High-Collision Location (HCL)** – Reviews map data showing where a high number of collisions have occurred in the preceding year to prioritize locations for improvements. High-collision locations are defined and mapped for collisions occurring at signalized intersections, non-signalized intersections, and mid-block – as reported by the Seattle Police Department (SPD). SDOT also maps high-collision locations for collisions involving pedestrians and bicycle riders. Using this analysis, SDOT evaluates approximately 40 locations per year and monitors or makes recommendations for countermeasures to prevent future collisions.

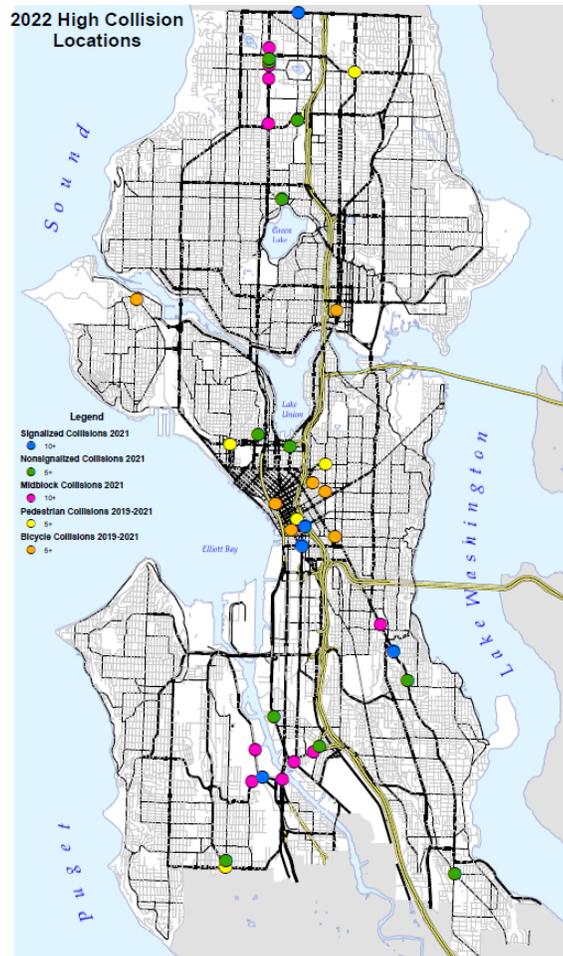


Figure 9: 2022 High Collision Locations. Source: SDOT Vision Zero

- Fatal incident reviews – SDOT reviews all transportation-related fatal incidents in SDOT right-of-way, excluding those caused by intentional, law enforcement, or medical emergency events. The review focuses on ensuring that elements such as signs, lighting, and signals meet current standards. Additional reviews are included for bicycle- and pedestrian-related fatalities, or for unique conditions.
- Citywide non-arterial intersection crash review – SDOT reviews crashes at non-arterial intersections annually to identify potential spot improvements. Typically, the top 20 intersections are identified and improvements such as traffic circles, signage, marking enhancements, and sightline obstruction removal are pursued. Because most serious injury and fatality crashes occur on arterials, the Vision Zero program focuses on arterials. However, the non-arterial network provides important access and lower stress streets for people walking, biking, and rolling.

Data we're missing

SDOT relies heavily on SPD reports to track serious injuries and fatalities on our streets. This explicitly leaves out incidents not reported to police and likely undercounts incidents and injuries. Police reports are based on information available to responding officers and through witness statements after a

serious incident has occurred. Reports are often detailed but can provide limited actionable information for SDOT. Vision Zero focuses on collisions resulting in fatalities or serious injuries as determined by the responding officer and does not focus on minor collisions. SDOT does not systematically track near-misses, though people sometimes report such incidents to SDOT.

Current focus corridors and areas

Based on ongoing review and analysis of data, SDOT is currently focusing efforts on the corridors and areas where serious injury and fatality collisions are highest or highest risk (with work underway or starting soon).

The map below shows where serious and fatal collisions occurred over 2019-2021, along with the mode of transportation used by the affected person, overlaid with the City's Race and Social Justice Index. The map shows that 44% of fatal and serious crashes between 2019-2021 happened in District 2 (SODO and Southeast Seattle), which also has the highest proportion of Census tracts rated as "highest disadvantage." District 5 is also disproportionately represented on this map. In 2022, 56% of fatal and serious crashes happened in District 2.

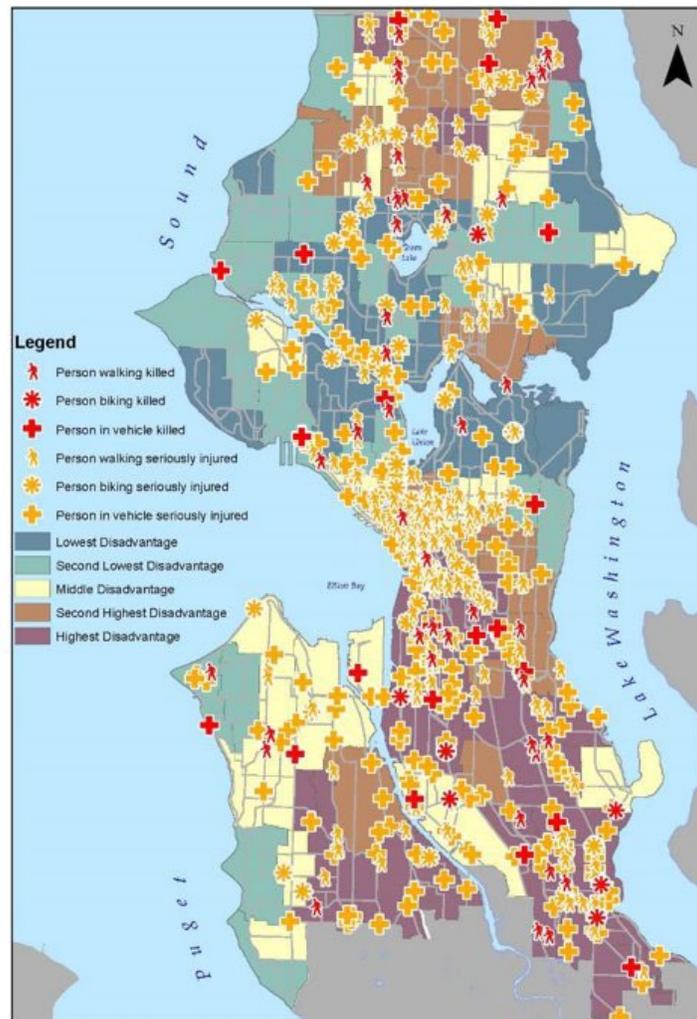


Figure 10: Map showing fatalities and serious injuries by mode, with the City's Race and Social Equity Index.
Source: SDOT Vision Zero

People walking and biking are also disproportionately likely to be killed in the areas rated highest priority/most disadvantaged.

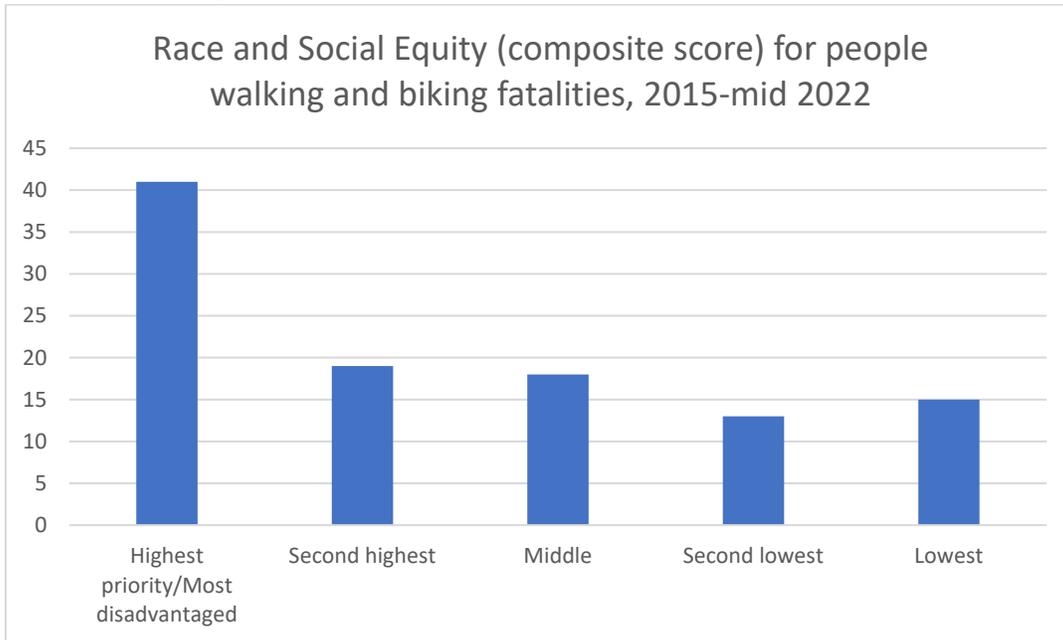


Figure 11: Chart showing where people walking and biking were killed, 2015-June 2022, according to the City's Race and Social Equity Index Composite Score. Source: SDOT Vision Zero

Focusing on the most vulnerable people on our streets

Identifying who is most vulnerable informs our priorities, street designs, and overall approach. The following groups tend to be most vulnerable when traveling in the right-of-way.

- **Unhoused people:** In 2021, 27% of people who were killed on city streets were unhoused compared with 13% of people killed between 2016 and 2021.
- **People walking, biking, and rolling:** People walking, biking, and rolling are involved in 7% of total collisions but make up 61% of fatalities in Seattle. Anyone who is outside the protection of a vehicle is more vulnerable to more serious harm.
- **Communities of color and low-income communities:** [Seattle's Race and Social Justice Index](#) characterizes neighborhoods by factors such as race, income, education, and English language use and ranks neighborhoods according to "disadvantage." The parts of Seattle that are rated as highest disadvantage have the highest rate of fatalities and serious injuries. In 2021, [56% of fatal crashes](#) (see slide 12) were in City Council District 2, which is the district with the highest "disadvantage" rating in the Race and Social Justice Index. Data of individuals impacted by crashes also shows that Black people are disproportionately affected by fatal crashes.
- **Children:** Youth fatalities on Seattle streets are very rare. However, given their size and brain development, children are particularly vulnerable to being harmed by collisions. The majority of collisions that seriously injure kids happen outside of school travel times and in locations not on routes to school.

- **Older adults:** The average age of people killed on streets in Seattle is 52. [Nationally](#), pedestrian fatality rates rise significantly at age 45; a 75-year-old is more than twice as likely as a 16–20-year-old to be hit by a car. Similar to children, older adults may move more slowly and their bodies are more fragile. Seattle does not currently dedicate resources to transportation safety programming for older adults.
- **People with disabilities:** While [SDOT is making progress](#) toward our city being more accessible, streets can still be [uncomfortable or perceived as unsafe](#). People with disabilities have a wide range of different needs, but may move more slowly, be less visible to people driving, or not be able to see or hear hazards. Things that can seem like a minor hazard to someone without disabilities can create a serious safety concern for a person with a disability. Designing streets that are safe and comfortable for people with disabilities makes streets safer and more comfortable for all.

Looking ahead

SDOT applied for a federal [Safe Streets and Roads for All grant](#) for a set of projects totaling \$37.5 million to make relatively low-cost, effective improvements at a much larger scale – with 90% or more of spending focused on underserved communities. Proposed improvements include upgrades to more than 100 signalized intersections with accessible pedestrian signals, ADA curb ramps, and leading pedestrian intervals; upgrades to six unsignalized crossings with marked crosswalks, refuge islands, and rapid flashing beacons; 1.5 miles of new sidewalks; 4 miles of new protected bike lanes; and 4.5 miles of arterial traffic calming with lane reductions, speed humps, and medians. Announcements about grant awards are expected in January 2023. SDOT has many other initiatives underway to advance Vision Zero, several of which are called out in the recommendations below.

3. Findings and recommendations

Based on our review of background information, existing programs, conditions, and other available sources of information, we have summarized our findings and recommendations in six categories:

- Policies, guidelines, and implementing procedures;
- Program and project delivery;
- Allocating resources and budget;
- Automated enforcement;
- Organization, staffing, and analysis; and
- Partnerships.

Within each of these categories, we identified both strategic and tactical recommendations. A Summary Table of recommended strategies and tactics is included in Appendix A. Below we list the recommended strategies by category and highlights notable examples from the Summary Table of recommended tactics.

This review does not attempt to fully assess the potential cost and staffing impacts of recommendations. All recommended strategies and tactics are intended to inform further work to align funding, policies, procedures, and activities within a Safe Systems framework to support Vision Zero.

Policies, guidelines, and implementing procedures

Key Recommendations:

- **Incorporate Vision Zero and Safe Systems approaches into every project and program**
- **Adopt clearer and stronger guidance for facility design**
- **Clarify and streamline internal decision pathways**

Seattle has several key policy documents that inform priorities for projects and programs, including the Complete Streets Ordinance, Streets Illustrated, and multiple plans for keeping people and goods moving safely and efficiently ([modal plans](#)). Even with these guiding documents, decision-making on issues that affect multiple SDOT divisions can be inefficient and inconsistent.

The Complete Streets Checklist is the primary tool SDOT uses to implement the Complete Streets Ordinance. The checklist helps project managers identify elements of a “complete” project from guiding policy documents and other sources as they begin projects. Staff are currently working on an updated checklist and aim to release it in 2023. SDOT staff are working on an ongoing basis to improve Complete Streets decision-making to right-size and **clarify the internal decision pathways** for specific types of issues. SDOT is also currently developing the Seattle Transportation Plan, which could provide stronger policy guidance on program priorities and help inform changes to complete streets policies and procedures to make implementation of the ordinance more effective.

SDOT must navigate adopted federal, state, and local rules and guidelines, and justify and document deviations. Establishing clearer guidelines can streamline project-by-project decision-making and support greater innovation and context-sensitive design. SDOT is currently developing new or updated guidance documents for an Enhanced Crossing Policy for marked crosswalks with additional improvements, Pedestrian Crossing Guide, and Bicycle Facility Design Guidelines.

Autonomous vehicles (AVs), electric vehicles (EVs), bike and scooter share programs, and other emerging technologies and modes could greatly alter how we manage safety on Seattle streets. SDOT also regularly receives requests from private companies looking to operate new and innovative transportation in the right-of-way, such as delivery robots and shared mopeds.

Advocates for AVs hope to remove human error from driving behavior, though autonomous vehicles are not yet error-free. Companies have already begun testing AVs on city streets and SDOT is currently reviewing the first permit application for testing in Seattle.

Policy documents on climate such as the [Transportation Electrification Blueprint](#) and [Executive Order 2022-07: One Seattle Climate Justice Actions to Reduce Emissions from the Transportation Sector](#) promote the use of EVs across sectors. While EVs are promising for climate progress, they are not always aligned with Vision Zero goals. In some cases, EVs are heavier and therefore pose a greater risk of harm to people outside of them. Additionally, the quietness of EVs may pose a greater risk to people walking, biking, and rolling who cannot hear the vehicles approaching.

SDOT permits the use of bike share and scooter share, operated in a free-floating format since 2017. Generally, these devices contribute to climate-friendly transportation options and provide an alternative

to travel by car. SDOT reviews collision reports related to these modes and conducted a user survey in 2021 that gleaned a large amount of data from self-reported injuries. SDOT also receives complaints about these devices obstructing sidewalks and complaints of users riding faster than pedestrian speed on sidewalks and making others uncomfortable. Overall, we find that users of these modes are similarly vulnerable to crashes as others who are walking, rolling, and biking. While SDOT conducted a survey on which users did report injuries to themselves, we did not find evidence in Seattle of scooter and bike share users causing death or serious injury to others.

Recommended strategies and priority tactics:

- Update guiding policies and procedures to reflect best practices
 - Adopt clearer and stronger guidance for facility design, such as for bicycle facilities and pedestrian crossings, to reduce the complexity of decisions for site-specific applications.
- Incorporate Vision Zero and Safe Systems approaches into every project and program
 - Incorporate Vision Zero and the Safe Systems framework as projects are developed, including when prioritizing which projects get built and when, and when designing capital projects (public works contracts) and crew-built projects.
- Anticipate and prepare for future transportation innovation and mitigate future risks
 - Continue current efforts to permit and regulate new and emerging transportation technologies. Regularly collect safety data on these new modes and be ready and willing to strengthen regulations.

[Program and project delivery](#)

Key Recommendations:

- **Be willing to reduce vehicle travel speeds and convenience to improve safety**
- **Implement iterative, ongoing improvements to our infrastructure**
- **Accelerate planning for broader or systemwide implementation of proven interventions**

SDOT has two major mechanisms to implement improvement projects: capital projects, which are larger in scale and entail contracting with an outside firm to construct, and crew-built projects, which are smaller and designed and implemented by SDOT staff. State law restricts the dollar value of projects that SDOT can deliver with its own crews.

Both mechanisms have challenges with timelines and expectations for project review and decision-making that currently slow down our progress toward Vision Zero. As noted earlier, applying existing standards on a project-by-project basis and justifying deviations can be cumbersome; updated design guidance documents could help streamline decision-making and documentation requirements in many cases. The process and authority for decision-making is also not always clear. Decision-making around improvements that improve safety and slow vehicular traffic can be especially difficult—due to competing priorities, a lack of clear direction from leadership, and other concerns—even though safer speeds are a key component of Safe Systems.

Labor costs for project development, design, and construction management are a significant portion of total project cost, particularly for smaller-scale or scattered-site improvements, and projects with lower material costs. For these “lower cost” improvements, the efficiency of decision-making and project delivery is critical to controlling costs.

Larger capital projects represent a key opportunity to implement best practices, and SDOT also needs to be able to respond to evolving conditions. When adequate funding is not identified to implement best Vision Zero practices as part of a capital project, SDOT does not have a consistent mechanism to plan for future improvements in that corridor or location. In some cases, SDOT has phased improvements by implementing lower-cost improvements first and planning for upgrades over time. However, more often, improvements are not included in the capital project initially, or no plans are made for future additional improvements after lower-cost improvements are installed.

In 2022, City Council passed a proviso to the City budget to direct \$1 million in bicycle master plan implementation funds to upgrade lower-cost plastic traffic delimiters with concrete barriers in District 2. This work provides an opportunity to pilot planning for broader or systemwide upgrades to shorter life assets, though in the short term may pull funding from other planned projects.

SDOT has successfully rolled out some operational changes that are proven interventions for safety improvement. For example, leading pedestrian intervals (LPIs) have been added at many signalized intersections throughout the city to give pedestrians a “head start” when signals change. SDOT is also working to implement “no turn on red” regulations at many intersections downtown. In many cases SDOT does not have plans for rolling out these types of smaller scale changes more broadly. For example, SDOT has piloted hardened center lines, and has developed a list of potential places to implement, but this plan has not yet been finalized.

Recommended strategies and priority tactics:

- Improve project delivery efficiency for Vision Zero improvements
 - Be willing to reduce vehicle travel speeds and convenience to improve safety. Be clear about benefits and transparent about potential impacts to general purpose vehicle travel.
- Implement iterative, ongoing improvements to our infrastructure
 - Respond to the Council Proviso for upgrades to District 2 bicycle infrastructure, and apply lessons learned from this effort to develop clearer plans to maintain, replace, and/or upgrade facilities on an ongoing basis citywide. Upgrades should be strategic and may use a variety of durable materials.
- Accelerate planning for broader or systemwide implementation of proven interventions
 - Evaluate multi-lane arterials where most pedestrian fatalities occur. Identify and plan for opportunities for lane reductions while maintaining transit and freight networks and emergency response capabilities and being transparent about expected impacts to general purpose vehicle travel.

Allocation of resources and budgeting

Key Recommendation:

- **Secure funding to incorporate Vision Zero improvements in all projects and for asset maintenance**

SDOT is currently developing a Transportation Asset Management Plan. Some existing assets are not currently maintained at a high or consistent level of service. For some assets (especially shorter-life assets like traffic posts), SDOT does not yet have a clear maintenance level of service or asset

management plan. Concern about SDOT's ability to maintain safety improvements can be an obstacle to building new improvements that we know will make a difference.

SDOT generally does not estimate operating and maintenance costs of planned improvements to support budgeting for future operations and maintenance. Projects replace existing assets, which may reduce near-term maintenance costs, and add new or enhanced assets, which may increase near-term maintenance costs, particularly for shorter-life assets. Projects may also change the type of maintenance required. Many of the most effective Vision Zero improvements lower some maintenance costs while increasing others. For example, paint-and-post protected bike lanes add a cost to maintain the paint and posts, but lower pavement maintenance costs because bikes damage pavement much less than vehicles. Conversely, replacing flexible traffic posts with more durable assets, like concrete curb or barriers, costs more up-front, but lowers maintenance costs over time.

Capital projects provide a unique opportunity to incorporate major, corridor-wide improvements. However, many SDOT programs are funded only to implement specific deliverables, with a narrow scope definition to maximize those deliverables. Program scopes do not always include Vision Zero improvements. For example, the Arterial Asphalt and Concrete paving program is focused on pavement asset preservation and project scopes and budgets include drainage and ADA elements to meet legal requirements, but do not typically include specific Vision Zero improvements or implementation of modal plans.

As a result, many SDOT capital projects are initiated without sufficient resources to deliver Vision Zero best practices. Projects often seek financial support and staff expertise from the Vision Zero team or other sources to incorporate Vision Zero improvements during project development. In many cases, desired improvements are not implemented due to inadequate funding, funding that is constrained to specific uses, or project delivery timelines. Safety improvements are sometimes viewed as "nice to haves" instead of "must haves."

Recommended strategies and priority tactics:

- Improve planning and budgeting for maintenance and replacement of Vision Zero improvements
 - Develop or update maintenance level of service standards and asset management or replacement plans for shorter-life assets critical to achieving Vision Zero.
- Secure funding to incorporate Vision Zero improvements in all projects
 - Ensure that the base budgets for capital programs and projects include sufficient budget to incorporate Vision Zero best practices in early project scoping phases, or explicitly budget for Vision Zero "partnering" with other capital projects.

Automated enforcement

Key Recommendations:

- **Complete racial equity analysis of automated enforcement. Address inequities and where appropriate, use automated enforcement as a tool.**

SDOT staff and community members continue to have meaningful conversations about the role of enforcement, including automated enforcement, in our transportation safety strategy. For this reason,

we gave automated enforcement its own section in this report and it has also been the subject of ongoing analysis by Vision Zero staff and community members.

Seattle currently has 31 red light cameras and 26 school zone speed cameras. SDOT has also installed cameras for enforcement of bus lanes and used automated enforcement on the Spokane St Swing Bridge while the West Seattle High-rise Bridge was closed for 2.5 years of repairs.

For this analysis, we focused on the red light and school zone cameras. Automated enforcement has been demonstrated to be an effective tool for reducing speed of drivers, reducing red-light running, and reducing overall collisions at intersections – where cameras are installed. Red light cameras are placed at intersections with a high number of right-angle collisions, with a focus on serious injury and fatality collisions. School zone camera locations are chosen by evaluating speeds in all school zones annually and placing cameras at the locations with the highest speeds when youth are traveling to and from school.

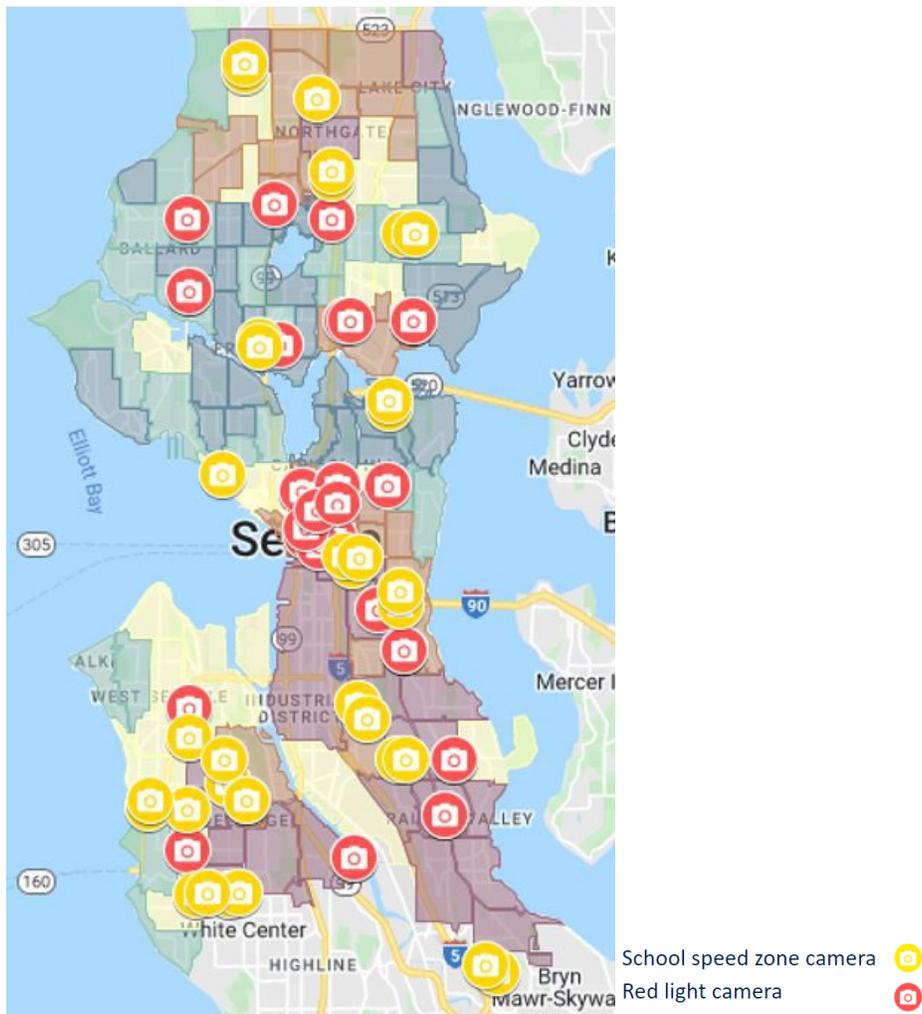


Figure 12: Map showing school zone speed cameras and red light cameras, overlaid on the City's Race and Social Equity Index.
Source: SDOT Vision Zero

People rarely receive a second automated enforcement ticket: 95% of those who receive a ticket at a specific location never receive a second ticket at the same location and 80% of those who receive a ticket never receive another ticket at any other camera within the system. About half of the revenue generated by the fines collected from automated citations goes to SDOT safety projects, and the other half goes to the City general fund to administer the program.

SDOT's Transportation Equity Workgroup highlighted equity concerns regarding automated enforcement in the TEF, and similar issues were highlighted in nationwide studies. This research found that cameras are placed on streets with known speeding and red-light-running concerns, which are disproportionately in lower-income neighborhoods with more people of color. The financial consequences can be harmful to people with limited income, and non-financial response options are limited. The TEF directs SDOT to pursue less punitive ways to address these unintended consequences and to create safer streets and curb unsafe driver behaviors. SDOT is in the process of working with the community to better understand these issues and strategize more equitable program approaches.

Vision Zero staff contracted with the community-based organization Whose Streets? Our Streets! to engage directly with community members about improving safety, including the role of enforcement in safety. This work is happening at the same time as this review and will be shared more broadly in early 2023, as well as informing the forthcoming Vision Zero Action Plan.

City Council adopted a [Statement of Legislative Intent](#) (SLI) in the 2023 budget process directing SDOT to report on a plan to double the number of school safety enforcement cameras, and further develop "an evaluation of the costs and benefits for expanding other automated traffic safety camera programs, including red light cameras, block-the-box/transit-lane enforcement cameras, speed zone cameras, and other traffic camera authority provided under state law."

Recommended strategies and priority tactics:

- Implement changes to automated enforcement to address inequity
 - Complete the racial equity analysis underway and continue partnering with the Transportation Equity Workgroup's Transportation Justice subcommittee to implement TEF tactics, including co-defining safety and identifying non-financial penalties and alternatives to enforcement.
- Develop a response to SLI-SDOT-[304-A-001-2023](#) to address potential expansion of school zone cameras and other types of automated enforcement.
 - Reflect the range of equity considerations and alternatives to camera-based enforcement in the response to the SLI, in addition to equitably siting any new cameras.
- Plan for permanent street design changes to replace automated enforcement in the future
 - Continue to use revenues from citations for local safety improvements to reduce or eliminate the need for enforcement. Be clear that enforcement is intended to reduce dangerous behavior, not in place solely for revenue generation purposes.

Organization, staffing, and analysis

Key Recommendations:

- **Shift culture and strengthen support for Vision Zero throughout SDOT**

- **Strengthen and resource SDOT’s Vision Zero core and matrix teams**
- **Improve SDOT’s customer service response process**

Strong and vocal support from elected leaders for rapid, bold, and broad-scale implementation of Vision Zero interventions is common in the cities that have achieved reductions in serious injuries and fatalities – even though these interventions may reduce vehicle speeds. The voice from leadership at SDOT about the priority of Vision Zero to internal and external audiences is also important.

Implementation of Vision Zero projects and the program relies on a dedicated “core” staff and resources, and “matrix” staff and resources from other SDOT divisions, other City departments, and other public agency and private partners. Some staff in the matrix have strong buy-in and understand their clear connection to Vision Zero, while other staff do not have as clear a connection – or understanding of how they contribute – to Vision Zero objectives. The Vision Zero team recently convened an Intradepartmental Team (IDT) to better connect staff from SDOT matrix divisions with the core program.

The City Traffic Engineer has critical authority designated in the Seattle Municipal Code. This position currently reports to the Transportation Operations Division (TOD) Director and works closely with the Vision Zero team in the Project Development Division (PDD). Several staff within TOD are essential to implementation of projects to improve safety outcomes. Currently, TOD staff frequently act as reviewers and approvers for projects proposed by staff in PDD and other divisions, rather than as collaborators. Concerns about potential claims and litigation can cause caution and hesitancy in making bold, innovative decisions.

Staff throughout the project development and implementation process encounter bottlenecks due to staffing and capacity challenges. Many projects can be delivered by SDOT crews, but at times there are not enough designers or crew staff to implement projects as fast as funding allows.

The Vision Zero team and other teams collect and analyze robust sets of data. Police reports make up the bulk of data used to support the Vision Zero program. As a result, some causes of injuries and near misses are not captured in our data if not reported to the police. It may take time to accurately capture the effectiveness of certain improvements, and outside factors that influence safety at specific locations may change over time. SDOT staff also review incidents for which claims are submitted to SDOT and identify potential safety improvements at many locations as a result of these reviews. Some programs, such as bike and scooter share programs, have also used surveys and studies to better understand injury rates to supplement data from police reports. There are new and emerging data sources SDOT could use to monitor and evaluate safety and the effectiveness of improvements. Examples include monitoring near-misses, citywide real-time speed analysis, turning speeds, and more.

SDOT and peer agencies have typically not measured effectiveness of Vision Zero education campaigns than engineering interventions. Staff observed clear progress from one campaign, “Seattle’s Safest Driver,” in which 2,100 participants voluntarily opted into an app to track their driving behavior. The program found a 25% reduction in overall risky behavior, a 45% reduction in speeding, and a 9% reduction in phone distraction. This may provide a model for establishing and measuring clearer outcomes for future educational programs.

There is limited analysis of constituent feedback and complaints received over time. SDOT staff generally respond quickly to questions and complaints, but often do not have capacity to fully investigate or analyze complaint themes. Constituents have expressed frustration about whether their comments, concerns, and complaints are thoroughly analyzed. The [Portland Bureau of Transportation](#) has a system for community members to request safety improvements that SDOT could look to as a model. Being responsive to concerns about safety can help build community trust in future progress.

Recommended strategies and priority tactics:

- Shift culture and strengthen support for Vision Zero throughout SDOT and among City leadership
 - Build SDOT Senior Team (division directors, deputy directors) capacity as champions for Vision Zero. Use training time and Senior Team meetings to focus on Vision Zero. Senior Team members should all be fluent in Vision Zero and Safe Systems principles and how it is prioritized within SDOT.
- Strengthen SDOT's Vision Zero core and matrix teams
 - Support all levels of Vision Zero work by assessing resource needs and, as necessary, hiring more project developers, designers, engineers, and crew staff who are critical for delivering projects expediently.
- Continue improving data collection, analysis, and reporting
 - Expand the scope and/or increase frequency of high-collision location and non-arterial reviews to be more responsive to emerging issues. Explore the use of emerging data sources and incorporate into before and after studies and data storytelling.
- Improve SDOT's customer service response process
 - Enhance existing systems for people to report safety concerns, with clear timelines for evaluation, and a clearer process for adding customer-generated requests to plans for improvements.

Partnerships

Key Recommendations:

- **Be champions for Vision Zero as we engage with WSDOT, the Port of Seattle, transit partners, the legislature, and other organizations**

Many factors outside of SDOT's direct control contribute to Seattle's continued challenges achieving Vision Zero. While SDOT manages the street network in the City of Seattle, our work intersects with a variety of other partners with varied perspectives and roles regarding Vision Zero. This highlights the need for SDOT to partner with other City departments, public agencies, non-profit organizations, and community groups to address the challenges holistically. Much of this work is already underway and SDOT plans to continue strengthening these partnerships to broaden understanding and shared ownership of Vision Zero.

In the past, the Vision Zero movement used enforcement as a leading strategy. Peer agencies are moving away from enforcement as a leading strategy, pointing instead to a safe systems model and designing roads to be "self-enforcing." Seattle Police Department (SPD) has been a key City department partner for Vision Zero, providing enforcement resources including processing of automated enforcement tickets. SPD is also an important partner in post-crash collision reviews to help SDOT

understand circumstances of crashes. Data from SPD is a major input into how SDOT counts crashes. SDOT recognizes that SPD's primary responsibility in crash investigation and response is to determine fault for potential civil claims or criminal charges, while SDOT is seeking information that could help us make our streets safer.

Several challenges and opportunities to getting to Vision Zero are constrained or enabled by state or federal laws, largely outside of SDOT's direct control. The Office of Intergovernmental Relations (OIR) collaborates with SDOT in the development of the City's state and federal legislative agendas. SDOT should continue to identify and seek OIR support to advocate for state and federal legislation supporting Vision Zero.

SDOT has been recognized as a leader among Vision Zero implementing organizations nationwide. SDOT works with peer cities and other organizations implementing Vision Zero to leverage work and analysis by agency partners to refine and update strategies, and to identify opportunities for further collaboration. SDOT has also collaborated with University of Washington (UW) in the development of the Bicycle and Pedestrian Safety Analysis and with the UW Urban Freight Lab to identify ways to make goods delivery safer and more sustainable.

Many of the streets in Seattle with the most serious injuries and fatalities are current state routes – including Aurora Ave N (SR 99), Lake City Way NE (SR 522), and Sand Point Way NE (SR 513). Improving conditions on these corridors requires close coordination with WSDOT. Rapid implementation in 2022 converting a vehicle lane to a protected bike lane on Aurora Ave N adjacent to Green Lake is a good example of successful partnership with WSDOT. In 2022, the State legislature budgeted \$50 million for SR 99 Aurora Avenue N improvements – a large first step toward improvements on this critical corridor. SDOT also coordinates with WSDOT on safety at the interface between state highway on- and off-ramps and City streets. The next major phase of WSDOT's "Revive I-5" program will substantially reconstruct 22 on- and off-ramps between downtown and Northgate along I-5 in 2024-26. This provides a potential opportunity to improve safety on these connections and to pilot or model improvements that could be more broadly applied in the future. WSDOT has also secured funding to advance plans for safety improvements at the I-90 on- and off-ramps to Rainier Ave S – a critical location with the anticipated opening of a Link light rail station in 2024 or 2025.

As the region's Metropolitan Planning Organization, PSRC provides a crucial connection to region-wide planning and for prioritization of federal transportation funding to the region. Currently SDOT must get approval from PSRC for projects that change arterial capacity. This is important for PSRC to ensure that the region continues to meet federal requirements based on modeling of the transportation system and may be particularly important for arterial capacity expansion.

The Port of Seattle and Northwest Seaport Alliance (NWSA) are important partners for SDOT engagement with the freight community. SDOT has collaborated with the Port and NWSA in the past to host a bicycle/truck safety event ("road-eo"), and planned a similar event for 2021 which has been delayed due primarily to the COVID pandemic. This event is intended to bring together members of the freight and bicycle boards, advocacy organizations, and communities with activities and information to

broaden awareness of safety issues associated with large trucks and bicycles operating together on City streets.

Recommended strategies and priority tactics:

- Strengthen partnerships with other City departments
 - Collaborate with the Office of Intergovernmental Relations (OIR) to advocate for legislation supporting Vision Zero, including legislation related to:
 - Regulation of Automated Vehicles and other emerging technologies and modes;
 - TEF Transportation Justice strategies;
 - Driver education and licensing requirements;
 - Regulations (or fees) based on vehicle size and weight;
 - Vehicle safety requirements for people outside of vehicles, such as truck side guards;
 - Increasing dollar limits for work that can be constructed by SDOT crews; and
 - Grant funding programs for Vision Zero improvements.
- Strengthen partnerships with state and regional transportation partners
 - Collaborate with the Washington State Department of Transportation (WSDOT) to:
 - Define a new vision for the SR 99 Aurora Avenue N corridor and identify near term improvements; secure support for key decisions in the corridor visioning process, and for additional funding in the future to fully implement the vision.
 - Address safety problems at freeway on-and off-ramps connecting to City streets.
 - Implementing the State's new Complete Streets statute for projects in Seattle.
 - Collaborate with the City of Lake Forest Park to extend speed limit reductions on SR 522 (Lake City Way) to the northern limits of Seattle and into Lake Forest Park.
- Strengthen partnerships with other agencies, organizations, and institutions
 - Collaborate with transportation and safety advocacy organizations to:
 - Build and maintain a relationship of accountability with advocates, including regular check-ins to demonstrate progress, challenges and opportunities.
 - Support organizations led by those most impacted by traffic violence, particularly BIPOC-led organizations.

4. How we recommend SDOT use this report

This report is neither the beginning nor the end of SDOT's Vision Zero work. Our recommendations are intended to spur action to make SDOT more effective in delivering Safe Systems and Vision Zero outcomes. Our recommendations place renewed focus on efforts to advance Vision Zero and are intended to provide an important input into SDOT's upcoming update of the Vision Zero Action Plan. The recommendations in this report should also be used to inform future budget processes and organizational planning to improve overall alignment with Vision Zero. This report, and our work with SDOT staff to develop the report, are also intended to provide a call to action throughout our organization to better identify how all projects and programs can more meaningfully contribute to Vision Zero.

When this draft report is published, we plan to present to and engage with City Council, the Transportation Equity Workgroup, and several City boards and commissions. Feedback from this

engagement will be summarized in the final report and provide additional input for SDOT's Vision Zero Action Plan update, Seattle Transportation Plan development, and other efforts in 2023.

Recommendations summarized in Section 3 and listed in Appendix A: Summary table of recommendations are wide-ranging. The summary table begins to distinguish among recommendations that can be accomplished in the near term, including work currently underway, medium term, and longer term, including ongoing efforts. Many medium-term and longer-term recommendations require further analysis to determine how, when, and where to implement them, and what additional staffing and financial resources may be needed for implementation. The summary table is intended to provide a starting point and foundation for SDOT work planning and reporting to implement recommendations. We recommend that reporting include frequent check-ins with the SDOT director on progress, and that these updates transition to regular updates on the Vision Zero Action Plan development and future implementation.

During our review, we also identified several additional areas where SDOT divisions work to make Seattle's streets and SDOT operations safer. SDOT's Vision Zero core team is involved in or aware of many of these efforts but does not manage or report on them. Some examples of these efforts are included in the summary table of recommendations. We encourage SDOT divisions to use these recommendations to spur further discussion about division-specific priorities and work programs to support Vision Zero. Milestones and accomplishments in these related efforts should contribute to an ongoing "drumbeat" of internal and external communication reinforcing the importance of safety and Vision Zero in SDOT's work.

5. Scope and methodology of review

This review was conducted and primarily authored by two SDOT staff, both of whom have prior knowledge of Vision Zero but do not directly work on the program. This offered an objective and semi-independent look at the program more quickly than a full external audit. Both SDOT staffers have worked at SDOT for over a decade and have master's degrees in Public Administration from the University of Washington's Evans School, and both live, work, and play in Seattle, and are daily users of Seattle's transportation system.

Our review focused on how SDOT can more effectively deliver safety interventions with demonstrated effectiveness in the locations where they are most needed. Our review did not evaluate or provide recommendations on specific projects or locations.

We used the following framing questions for the review:

- What do we already know about what works?
- What is going well?
- What barriers are we facing to doing more of what works?
- How can we adjust to make more rapid progress toward Vision Zero?
- What are additional next steps for collaboration, analysis, evaluation, or study?

Our review was based primarily on the sources described below.

Existing data

The Vision Zero program and other safety programs in SDOT have completed a large amount of data collection and analysis, issue identification, and strategizing for improvements. Our review recognizes the existing work and makes recommendations for areas where data collection could be expanded, and processes could be improved to better utilize available data.

Information on best practices

We reviewed information from Vision Zero Network, NACTO, FHWA, and other organizations reflecting local, national and worldwide experience and “best practices” implementing Vision Zero.

Issue papers

We commissioned SDOT staff to draft issue papers on programmatic areas of their expertise related to safety improvements and used this input to inform the review.

Staff interviews

Review staff conducted in-depth interviews with SDOT staff related to Vision Zero. This included every member of SDOT’s Senior Team, which includes Deputy Directors, Division Directors, and other executive staff. The review team also had follow-up interviews with issue paper authors to delve deeper into the opportunities and challenges they identified.

FHWA Safe System Approach and CDC Hierarchy of Controls frameworks

We found that most SDOT’s current Vision Zero strategies and tactics are strongly connected to Safe Systems outcomes and have demonstrated effectiveness. Many SDOT engineering interventions have before-and-after studies by SDOT or other implementing agencies that demonstrate measurable changes in vehicle speeds, the frequency or severity of crashes, or other outcomes that contribute directly to reducing fatal or serious injury collisions. For measures that do not have studies that evaluate effectiveness, we used the CDC Hierarchy of Controls to gauge effectiveness.

Suggestion box

We created a venue for any interested SDOT staff to provide their ideas to improve the effectiveness of our Vision Zero efforts. This provided an opportunity for SDOT employees not directly involved in Vision Zero, but actively involved in building, maintaining, and operating Seattle’s transportation system, to weigh in. Some of these ideas are reflected in the recommendations.

Community input

Given the rapid timeframe for development of this review, we did not include a dedicated community engagement effort. Instead, we called upon the significant amount of feedback that SDOT has received through many recent efforts to collect thoughts, suggestions, and opinions from the community regarding safety. Examples of community feedback we reviewed include:

- Seattle Transportation Plan (STP): The STP is SDOT’s commitment to building a transportation system that provides everyone in Seattle with access to safe, efficient, and affordable options to reach places and opportunities. For this review, we looked at the [Phase 1 Engagement Summary](#)

[Report](#) which collected 36,000+ data points through various tools during outreach. This provides high-level information about community priorities.

- [Capital Project outreach](#): We interviewed public engagement leads at SDOT who work on capital project delivery to understand common themes they have heard during project design and implementation.
- [Transportation Equity Framework \(TEF\)](#): Many of the values, strategies, and tactics identified in the TEF have a direct link to Vision Zero and are reflected in our findings and recommendations. SDOT's Vision Zero team is already working to implement some of these recommendations.
- [BIPOC-Led Solutions for Community Safety](#): This is a report written and created by [Whose Streets? Our Streets!](#) with funding from SDOT and in response to tactics named in the TEF around defining safety, compensating community for conducting engagement, and finding non-punitive pathways to transportation safety and well-being. This report describes a community outreach process which centers the experiences of Black, Indigenous, and People of Color when using our transportation system, including highlighting multi-faceted safety needs. Whose Streets? Our Streets! is a majority BIPOC working group supported by Seattle Neighborhood Greenways, from whom we also received a letter with suggestions to inform the Vision Zero review. Both documents informed our review.
- [Listening tours](#): During the course of our review, SDOT Director Greg Spotts has been conducting a series of mobile "listening tours" with community members, some of which highlighted safety concerns throughout the city.
- [Social media](#): SDOT regularly receives feedback and comments through social media channels, and we have taken concerns and questions relayed on social media into account in this review.
- [Customer service requests](#): SDOT receives approximately 100,000 customer service requests per year through the Find it, Fix it app, 684-ROAD hotline, the City's Customer Service Bureau, and other sources. We interviewed SDOT's Customer Care Manager to better understand trends in feedback received as well as to better understand how customer service requests are addressed. One of our recommendations is to develop more productive avenues for community members to report safety concerns to SDOT for evaluation and potential improvements.

Appendices

Appendix A: Summary table of recommendations

Appendix B: Public Engagement Summary of Findings

Appendix A: Summary Table of Recommendations

| Index ID | Recommendation Categories | Recommended Strategy | Recommended Tactic | Near/Medium/Long Term | Lead SDOT Division(s)/workgroup(s) | Key Supporting Division(s)/workgroup(s) |
|----------|---|--|---|-----------------------|------------------------------------|---|
| 1.1.1 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Update the Complete Streets Checklist to include key priorities identified by the Vision Zero program. | Near term/underway | P&P | |
| 1.1.2 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Improve the Complete Streets review process to streamline decision-making and to place a stronger emphasis on safety outcome and the people who are most vulnerable when traveling. | Near term/underway | P&P | |
| 1.1.3 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Adopt clearer and stronger guidance for facility design to reduce the complexity of decisions for site-specific applications. | Near term/underway | TOD | PDD, CP |
| 1.1.4 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Finalize guidance documents and use them to streamline decision-making and project delivery, especially for smaller-scale improvements. | Near term/underway | TOD | PDD, CP |
| 1.1.5 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Establish a modal integration framework through the Seattle Transportation Plan (STP) to prioritize safety and equity in project development decision-making. | Near term/underway | P&P | PDD, TOD, T&M |
| 1.1.6 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Provide policy guidance in the STP that prioritizes the most vulnerable people consistently in projects. | Near term/underway | P&P | PDD, TOD |
| 1.1.7 | 01 - Policies, guidelines and implementing procedures | 01- Update guiding policies and procedures | Review implementation of SDOT Director's Rule for maintenance of pedestrian and bicycle access in construction zones and develop recommended changes to the Rule itself or to procedures for administration/enforcement; develop recommendations for implementation of the Director's Rule (or guiding principles) for SDOT capital projects. | Medium term | SU | |
| 1.2.1 | 01 - Policies, guidelines and implementing procedures | 02-Incorporate Vision Zero and Safe Systems approaches into every project and program | Incorporate Vision Zero and the Safe Systems framework as projects are developed including prioritizing which projects get built and when, and designing capital projects (public works contracts) and crew-built projects. | Long term/ongoing | PDD | CP, PSMC, T&M |
| 1.2.2 | 01 - Policies, guidelines and implementing procedures | 02-Incorporate Vision Zero and Safe Systems approaches into every project and program | Require that projects are reviewed to include safety improvements focused for people walking, rolling, and biking. This should apply to projects citywide, and especially in areas identified by the High Injury Network (HIN) and the Bicycle and Pedestrian Safety Analysis (BPSA). If a project does not include these types of improvements, identify why not and how future safety improvements could be made. | Long term/ongoing | All | |
| 1.3.1 | 01 - Policies, guidelines and implementing procedures | 14-Anticipate and prepare for future transportation innovation and mitigate future risks | Advocate at the state level to maintain local control and permitting authority for new forms of transportation as they arise (e.g., autonomous vehicles). | Long term/ongoing | T&M | |
| 1.3.2 | 01 - Policies, guidelines and implementing procedures | 14-Anticipate and prepare for future transportation innovation and mitigate future risks | Invest in evaluation of new forms of transportation and enforcement of standards. Prioritize modes that provide an alternative to driving trips where possible. | Long term/ongoing | T&M | |
| 1.3.3 | 01 - Policies, guidelines and implementing procedures | 14-Anticipate and prepare for future transportation innovation and mitigate future risks | Continue current efforts to permit and regulate AV testing requiring drivers to be present in the vehicle during any testing activities. Regularly collect safety data on AVs and be ready and willing to strengthen regulations. | Medium term | T&M | |
| 2.1.1 | 02 - Program and project delivery | 05-Improve project delivery efficiency | Update and expand procedures related to safety that guide project developers through the project delivery process. | Near term/underway | PDD | T&M |
| 2.1.2 | 02 - Program and project delivery | 05-Improve project delivery efficiency | Review the project development process with the goal of identifying ways to clarify and streamline decision-making processes. | Medium term | TOD, PDD, CP | |
| 2.1.3 | 02 - Program and project delivery | 05-Improve project delivery efficiency | Improve safety by reducing vehicle speeds; be clear about benefits and transparent about potential impacts, including to general purpose vehicle travel. | Long term/ongoing | TOD | DO |

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| 2.1.4 | 02 - Program and project delivery | 05-Improve project delivery efficiency | Review the project development process to clarify roles and expectations for individual engineers and planners in the decision-making process. Empower subject matter experts to make key decisions, consulting with others when necessary for support. | Medium term | TOD, PDD, T&M | |
| 2.1.5 | 02 - Program and project delivery | 05-Improve project delivery efficiency | Review the project development process to clarify roles and expectations for individual engineers and planners in the decision-making process. Streamline decision-making by empowering subject matter experts to make key decisions, consulting with others when necessary for support. | Medium term | PDD, CP, TOD | |
| 2.1.6 | 02 - Program and project delivery | 05-Improve project delivery efficiency | Continue to align curbspace management with new facilities such as bike lanes, ensure feasibility of safe goods delivery around new facilities. | Near term/underway | T&M | |
| 2.2.1 | 02 - Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Phase larger capital projects to allow for early implementation of the most critical project components with a plan for future phases when sufficient funding cannot be secured for all desired improvements. | Long term/ongoing | CP, PDD | |
| 2.2.2 | 02 - Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Create a mechanism to more quickly implement lower-cost pilot projects and make plans to prioritize upgrading to more permanent solutions. For example, SDOT currently uses paint and flexpost delineators to install bike lanes, refuge islands, curb bulbs, and more. Create a plan to evaluate where improvements are most needed (e.g. where posts fail most often – and prioritize upgrading those facilities earlier). | Medium term | PDD, TOD | PSMRC, RMUF |
| 2.2.3 | 02 - Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Use guidance, such as bicycle facility and pedestrian design guidelines, to help streamline decision-making. | Medium term | PDD, TOD | |
| 2.2.4 | 02 - Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Implement a clearer and more consistent process for post-project evaluation; consistently communicate evaluation results to support internal and external culture change, and budget and plan for small-scale upgrades or adjustments after projects have been evaluated. | Medium term | PDD, TOD, CP, T&M | |
| 2.2.5 | 02 - Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Respond to the Council Proviso for upgrades to District 2 bicycle infrastructure, and apply lessons learned from this effort to develop clearer plans to maintain, replace or upgrade facilities on an ongoing basis citywide. | Near term/underway | PDD | |
| 2.2.6 | 02 - Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Continue to develop strategies for maintaining trees and landscaping, and using where appropriate to enhance safety (such as protective elements for bicycle facilities). Ensure maintenance funds are programmed to support these. | Medium term | RMUF | |
| 2.2.7 | 02- Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Develop an updated plan to improve safety of bridge expansion joints and railings for people biking, rolling, and walking. | Medium term | RS | |
| 2.2.8 | 02- Program and project delivery | 06-Implement iterative, ongoing improvements to our infrastructure | Continue to look for ways to prioritize clearing snow and ice from key bicycle and pedestrian corridors, as well as transit corridors. | Near term/underway | RMUF | DO (EM) |
| 2.3.1 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Evaluate multi-lane arterials where most pedestrian fatalities occur. Identify and plan for opportunities for lane reductions and other traffic calming measures to reduce speeds and conflict points. Evaluate and be transparent about impacts to transit and freight networks, and general purpose vehicle travel. | Near term/underway | PDD | PDD |

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| 2.3.2 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Develop a plan to implement arterial traffic calming/speed reduction improvements in a systematic way more broadly or citywide. | Near term/underway | TOD | PDD |
| 2.3.3 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Develop a plan to implement Leading Pedestrian Intervals (LPIs) and No Turn on Red in a systematic way more broadly or citywide. | Near term/underway | TOD | PDD |
| 2.3.4 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Develop a plan for increased implementation of marked crosswalks, signage and crossing enhancements (e.g., curb bulbs, flashing beacons). | Medium term | TOD | PDD |
| 2.3.5 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Develop a plan for expanded intersection daylighting (eliminating parked cars close to intersections to improve visibility). Initial implementation can include low-cost interventions such as "No Parking" signs; if signage alone is ineffective, use paint and post or bike corrals to serve as physical barriers. Plan to upgrade paint and post to more permanent improvements through capital projects. | Medium term | TOD | PDD |
| 2.3.6 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Develop a plan for expanded use of hardened centerlines (raised medians at intersections to control vehicle turning movements). | Near term/underway | TOD | PDD |
| 2.3.7 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Develop a plan for application of signal timing in Urban Villages to prioritize safe pedestrian movement. | Near term/underway | TOD | |
| 2.3.8 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Plan for efficient delivery of the Safe Streets for All Grant and look for opportunities to implement a geographically-focused safety approach in other areas of the city. | Near term/underway | PDD | CP, TOD |
| 2.3.9 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Continue to systemically build out a connected, protected bicycle facility network. | Long term/ongoing | PDD | |
| 2.3.10 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Continue to explore strategies for cost-effective enhanced crossing and sidewalk improvements. | Medium term | PSMC | TOD, PDD |
| 2.3.11 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Continue to lead streetcar safety efforts, and work with the Vision Zero team to apply lessons learned from streetcar safety work to broader SDOT safety efforts. | Near term/underway | T&M | |
| 2.3.12 | 02 - Program and project delivery | 07-Plan for broader or systemwide implementation of proven interventions | Ensure that safety-related assets are made of durable materials, so that concerns about damage from snow plows does not prevent the installation of these types of assets. | Medium term | PDD/TOD | PSMC, RMUF |

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| 3.1.1 | 03 - Allocation of resources and budgeting | 03-Secure funding to incorporate Vision Zero improvements in all projects | Use anticipated increases in the Vision Zero budget to fund widespread application of intersection level improvements, safety corridor improvements and arterial traffic calming, and improvements in “partnership” with other capital projects, focused specifically on the highest injury areas. Develop a prioritization framework in 2023 to support spending in 2024 and beyond. | Medium term | TOD | PDD, T&M, CP |
| 3.1.2 | 03 - Allocation of resources and budgeting | 03-Secure funding to incorporate Vision Zero improvements in all projects | Develop or update process to include sufficient funding in the base budget for capital projects to incorporate Vision Zero best practices in early project scoping phases and/or provide additional funds for Vision Zero “partnering” with other capital projects. | Long term/ongoing | PDD | FAD, CP |
| 3.2.1 | 03 - Allocation of resources and budgeting | 04-Improve planning and budgeting for maintenance and replacement of Vision Zero improvements | Develop or update maintenance level of service standards (such as a planned replacement cycle for traffic delineators or marked crosswalks) and asset management or replacement plans for shorter life assets critical to achieving Vision Zero. | Medium term | FAD | PSMC, TOD |
| 3.2.2 | 03 - Allocation of resources and budgeting | 04-Improve planning and budgeting for maintenance and replacement of Vision Zero improvements | Develop plans for upgrading shorter life-cycle assets to longer life-cycle assets. | Medium term | FAD | PSMC, TOD |
| 3.2.3 | 03 - Allocation of resources and budgeting | 04-Improve planning and budgeting for maintenance and replacement of Vision Zero improvements | Incorporate improved budgeting for-maintenance of Vision Zero-related assets in the SDOT Transportation Asset Management Plan. | Medium term | FAD | PDD, PSMC |
| 4.1.1 | 04 - Automated Enforcement | 09A-Implement changes to automated enforcement to address inequity | Anchor Vision Zero efforts to the Transportation Equity Framework; involve Vision Zero staff closely in TEF implementation. Use prior action items to guide SDOT’s focus on designing safer streets that do not rely on enforcement to change behavior. | Long term/ongoing | DO (OEEI), TOD | |

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| 4.1.2 | 04 - Automated Enforcement | 09A-Implement changes to automated enforcement to address inequity | Use the racial equity analysis process and continue partnering with the Transportation Equity Workgroup's Transportation Justice subcommittee to implement TEF tactics, including co-defining safety and identifying non-financial penalties and alternatives to enforcement. | Near term/underway | TOD, OEEI | |
| 4.1.3 | 04 - Automated Enforcement | 09A-Implement changes to automated enforcement to address inequity | Partner with the Seattle Municipal Court and continue to identify and promote payment options and non-financial penalties to avoid sending citations to collections. | Near term/underway | TOD, FAD | |
| 4.1.4 | 04 - Automated Enforcement | 09A-Implement changes to automated enforcement to address inequity | Advocate for city's inclusion of warnings that do not carry a financial penalty to help change behavior prior to citations being issued. | Near term/underway | DO (OEEI)/PDD | |
| 4.1.5 | 04 - Automated Enforcement | 09A-Implement changes to automated enforcement to address inequity | Advocate for city identifying accessible alternative options to respond to tickets for those who cannot pay them. | Near term/underway | DO (OEEI)/PDD | |
| 4.1.6 | 04 - Automated Enforcement | 09B-Develop a plan for expansion of automated enforcement in response to Council SLI | Prioritize using automated enforcement as a layer of redundancy at locations where non-punitive interventions are not sufficiently effective. | Near term/underway | TOD | |
| 4.2.1 | 04 - Automated Enforcement | 09B-Develop a plan for expansion of automated enforcement in response to Council SLI | Continue to engage with communities, especially those in the neighborhoods with the highest rates of fatal and serious injury collisions and those most impacted by financial penalties to develop a plan for the future of automated enforcement or alternatives to enforcement. Continue partnering with community-based organizations about the future of traffic camera enforcement in Seattle. | Near term/underway | PDD, TOD, Comms | |
| 4.2.2 | 04 - Automated Enforcement | 09B-Develop a plan for expansion of automated enforcement in response to Council SLI | Reflect the range of equity considerations and alternatives to camera-based enforcement in the response to the Council Statement of Legislative Intent, in addition to equitably siting any new camera locations. | Near term/underway | TOD | |
| 4.3.1 | 04 - Automated Enforcement | 09C-Plan for permanent street design changes to replace automated enforcement in the future. | Use existing automated enforcement in the near term while working to redesign our streets and move away from punitive practices. | Long term/ongoing | TOD | |
| 4.3.2 | 04 - Automated Enforcement | 09C-Plan for permanent street design changes to replace automated enforcement in the future. | Use budget process to reinvest any revenues from citations into local safety improvements to reduce or eliminate the need for enforcement. Clearly communicate that enforcement is not in place for revenue generation purposes. | Long term/ongoing | FAD | PDD |

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| 5.1.1 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Build SDOT Senior Team (division directors, deputy directors) capacity as ambassadors for Vision Zero. Use training time and Senior Team meetings to focus on Vision Zero. | Medium term | DO | |
| 5.1.2 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Work with division IDT members and Senior Team members to develop actionable division-specific Vision Zero goals and work programs through development of the new Vision Zero Action Plan. | Medium term | All | |
| 5.1.3 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Engage with SDOT construction and maintenance crew staff to identify ways for them to be connected to Vision Zero work. Encourage idea sharing from crew staff and encourage participation in the Vision Zero IDT and other opportunities for crew staff. | Long term/ongoing | RMUF/PSMC/RS | |
| 5.1.4 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Incorporate Vision Zero as part of the hiring process. State as a priority in job postings and consider asking about commitment to, and understanding of, Vision Zero, as part of hiring processes throughout SDOT. Train hiring managers and HR business partners in how to incorporate this in their hiring processes. | Medium term | PCL | |
| 5.1.5 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Ensure all engineers are up to date on <u>Vision Zero</u> training and best practices, <u>and using them</u> . Support and promote continuing education for engineers and participate in national conversations to learn best practices as well as share knowledge with other cities to push standards forward. | Medium term | TOD/CP/PDD/PCL | |
| 5.1.6 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Develop and provide ongoing, annual training for all staff on Vision Zero and safe systems principles. This can be modeled after SDOT's RSJI training program, which requires two hours of training for all staff annually. | Medium term | PCL/TOD | |
| 5.1.7 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Provide regular information and data to increase senior SDOT leadership and elected official support for decisions that advance safety. Share project assessments and best practices to build understanding that making meaningful progress on Vision Zero often will intentionally require slow vehicle movement and fewer vehicles. | Long term/ongoing | DO | |
| 5.1.8 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Provide training to help staff commit to using terms such as crash, and avoiding using the term accident, in all internal and external communications. Incorporate into SDOT style guide and templates. | Near term/underway | Comms/PCL | |
| 5.1.9 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Explore opportunities to expand use of truck side-guards and other safety technologies (e.g., intelligent speed assistance technology) on SDOT fleet vehicles, and on City fleet vehicles (i.e., beyond SDOT's fleet); explore opportunities to expand use beyond City fleet (e.g., by City contractors). | Near term/underway | PCL/FAD/PSMRC | |
| 5.1.10 | 05 - Organization and staffing | 12-Shift culture and develop buy-in to Vision Zero throughout SDOT and among City leadership | Seek exemptions from SEPA review process for safety improvements, where appropriate, to reduce delays in projects. | Near term/underway | CP | |
| 5.2.1 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Review the project development process with the goal of identifying ways that multi-divisional teams involved in Vision Zero can work in a more collaborative way, rather than a proposer-reviewer model. | Near term/ongoing | PDD/TOD/T&M | |

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| 5.2.2 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Designate a person, or people, to elevate into a lead role in Vision Zero and safe systems at an organizational level, that can mediate concerns about operations and litigation in order to focus on using the best safety strategies. This person should have ongoing access to the SDOT Director and regularly scheduled reporting to elevate key issues. Designate an additional person as an audit or check step on the lead. | Medium term | TOD | |
| 5.2.3 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Hire for a dedicated position to focus on Vision Zero communications, including data visualization and storytelling. This person could also help direct focused public education efforts. | Medium term | DO (Comms) | PDD |
| 5.2.4 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Consider allocating a dedicated funding pool for the City Traffic Engineer to use to respond to emerging <u>safety</u> problems. | Medium term | TOD | |
| 5.2.5 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Consider hiring a Deputy City Traffic Engineer who is empowered to make key decisions and perform some of the functions of the City Traffic Engineer. | Medium term | TOD | |
| 5.2.6 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Consider elevating the City Traffic Engineer position to report directly to the SDOT Director or SDOT Deputy Director on key safety matters. | Medium term | TOD | |
| 5.2.7 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Consider dedicating specific engineers in the Transportation Operations Division to Vision Zero efforts. | Medium term | TOD | |
| 5.2.8 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Review the project development process with the goal of identifying a more defined matrix staffing structure to clarify key roles in project and program delivery in support of Vision Zero and Safe Systems goals. Identify who is involved in what types of decision making, who provides input, who needs to be informed (e.g. a "RACI") analysis. | Medium term | PDD, TOD | All |
| 5.2.9 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Support all levels of Vision Zero work by assessing resource needs and, as necessary, hiring more project developers, designers, engineers, and crew staff who are critical for delivering projects expediently. | Long term/ongoing | PDD/TOD/CP/RMUF/PS MD | |
| 5.2.10 | 05 - Organization and staffing | 10-Strengthen SDOT's Vision Zero core and adjacent (matrix) teams | Continue to build SDOT's Vision Zero Intradepartmental Team (IDT) as a foundation for staff to build skills as advocates and subject matter experts within their respective divisions. | Near term/underway | TOD | All |
| 5.3.1 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Expand the scope and/or increase frequency of high-collision location reviews to be more action-oriented and responsive to emerging issues. | Near term/underway | TOD/PDD | |
| 5.3.2 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Use citywide, newer "big data" sources as a proactive way to monitor conditions (e.g., to identify locations with frequent "near misses"). | Medium term | TOD | |
| 5.3.3 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Use existing data sources such as the Bicycle Pedestrian Safety Analysis (BPSA) and the High Injury Network (HIN) more systematically to prioritize capital/corridor projects and in early project scoping phases. | Medium term | PDD | |
| 5.3.4 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Conduct analysis of existing customer service response data to identify key patterns, intersections with known injury locations, and use these data as an additional input for project selection and scoping. | Medium term | PSMC/TOD/PDD | |
| 5.3.5 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Consider using survey tools as a way to track injury experiences. Repeat with comparable instruments over time to better understand progress and usefulness for advancing Vision Zero. | Long term/ongoing | PDD/DO (Comms)/T&M | |
| 5.3.6 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Recognizing that we are already aware of many of the improvements we need to make streets safer, do not slow implementation for new and improved data where existing data are sufficient. | Long term/ongoing | PDD/TOD | |

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| 5.3.7 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Continue to clarify and measure desired outcomes of educational programs. | Long term/ongoing | DO (Comms)/TOD | |
| 5.3.8 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Continue to evaluate injury and safety-related claims and litigation data to identify opportunities for improvements to reduce future risks. | Near term/underway | FAD | TOD, PDD |
| 5.3.9 | 05 - Organization and staffing | 08-Improve on our robust data collection and analysis practices | Continue to actively assess, address, and manage micromobility safety issues (e.g., bike share and scooter share programs). | Near term/underway | T&M | |
| 5.4.1 | 05 - Organization and staffing | 13-Improve SDOT's customer response process | Analyze customer service requests over time , and layer with other sources such as collision and speed data. Recognize that complaints are a source of information that may or may not align with the most dangerous areas. Continue to prioritize investments in areas with the greatest number of serious injuries and fatalities. | Medium term | PSMC/TOD/PDD | |
| 5.4.2 | 05 - Organization and staffing | 13-Improve SDOT's customer response process | Enhance existing systems for people to report safety concerns, with clear timelines for evaluation, and a clearer process for adding customer generated requests to plans for improvements. Portland Bureau of Transportation has a model for community members to request safety improvements that SDOT could use for guidance. | Medium term | PSMC/TOD/PDD | |
| 5.4.3 | 05 - Organization and staffing | 13-Improve SDOT's customer response process | Continue to build out proactive practices such as the BPSA that reduce the need for complaint-based requests. | Long term/ongoing | All | |
| 6.1.1 | 06 - Partnerships | 15 - Strengthen partnerships with other City departments | Collaborate with the Seattle Police Department (SPD) to: <ul style="list-style-type: none"> Use the results of crash investigations, in aggregate, to better understand causes and identify street design and operations solutions to make all streets safer. Enhance communications and public affairs coordination. Respond to Council Statement of Legislative Intent (SLI) SDOT-304-A-001-2023, which requests a plan for the expansion of the School Zone Camera program. | Long term/ongoing | TOD, PDD | |
| 6.1.2 | 06 - Partnerships | 15 - Strengthen partnerships with other City departments | Collaborate with the Seattle Fire Department (SFD) to: <ul style="list-style-type: none"> Continue to clarify fire response route priorities by identifying routes that are likely to have the greatest effect on response times, and by developing clearer standards for safety interventions on routes likely to have a lesser effect on response times. Collect and evaluate the use of data from SFD response to transportation-related collisions and emergencies, which may or may not overlap with SPD response. Explore opportunities for SFD to move toward smaller, tighter turning fire engines (currently being introduced in Fire Engines). | Long term/ongoing | TOD | |
| 6.1.3 | 06 - Partnerships | 15 - Strengthen partnerships with other City departments | Collaborate with Seattle Public Utilities to: <ul style="list-style-type: none"> Develop clearer guidelines for garbage truck access requirements. Waste disposal is an essential City service that SDOT needs to accommodate, but as with SFD, accommodating large vehicles can be a significant barrier to safer street designs. | Long term/ongoing | TOD | |
| 6.1.4 | 06 - Partnerships | 15 - Strengthen partnerships with other City departments | Collaborate with Seattle City Light (SCL) to: <ul style="list-style-type: none"> Improve coordination of SCL service requests for energization of SDOT improvements to signals and street lighting to support streamlined SDOT project delivery. Work with the City Budget Office (CBO) to identify a predictable funding source for pedestrian scale street lighting. CBO, through SCL, pays for SDOT improvements to arterial street lighting, but not for pedestrian-scale lighting improvements. Pedestrian-scale lighting improvements are frequently identified through the Complete Streets review process but are often not implemented due to lack of a dedicated funding source. | Long term/ongoing | CP/PDD/TOD | |

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| 6.1.5 | 06 - Partnerships | 15 - Strengthen partnerships with other City departments | Collaborate with the Seattle Municipal Court to: <ul style="list-style-type: none"> • Implement recommendations from SDOT's equity analysis of automated enforcement. | Long term/ongoing | TOD | |
| 6.1.6 | 06 - Partnerships | 15 - Strengthen partnerships with other City departments | Collaborate with the Office of Intergovernmental Relations (OIR) to advocate for legislation supporting Vision Zero, including legislation related to: <ul style="list-style-type: none"> • Regulation of Automated Vehicles and other emerging technologies and modes; • Transportation Equity Framework Transportation Justice strategies; • Driver education and licensing requirements; • Regulations (or fees) based on vehicle size and weight; • Vehicle safety requirements for people outside of vehicles, such as truck side guards and intelligent speed assistance; • Increasing dollar limits for work that can be constructed by SDOT crews; and • Grant funding programs for Vision Zero infrastructure improvements. | Long term/ongoing | TOD/T&M/DO | |
| 6.2.1 | 06 - Partnerships | 16 - Strengthen partnerships with state and regional transportation partners | Collaborate with the Washington State Department of Transportation (WSDOT) to: <ul style="list-style-type: none"> • Define a new vision for the SR 99 Aurora Avenue N corridor and identify near term improvements; secure support for key decisions in the corridor visioning process, and for additional funding in the future to fully implement the vision. • Define a plan to address safety problems at freeway on-and off-ramps connecting to City streets. • Implementing the State's new Complete Streets statute for projects in Seattle. • Collaborate with the City of Lake Forest Park to extend speed limit reductions on SR 522 (Lake City Way) to the northern limits of Seattle and into Lake Forest Park. | Long term/ongoing | TOD | |
| 6.2.2 | 06 - Partnerships | 16 - Strengthen partnerships with state and regional transportation partners | Collaborate with the Puget Sound Regional Council (PSRC) to: <ul style="list-style-type: none"> • Support a 2023 Vision Zero event to bring together experts from around the region to share information on current best practices. • Seek a collaboration structure where SDOT informs PSRC (vs. seeks approval from PSRC) for reductions to arterial capacity to ensure regional transportation plans and models remain accurate. | Long term/ongoing | P&P | |
| 6.2.3 | 06 - Partnerships | 16 - Strengthen partnerships with state and regional transportation partners | Collaborate with Sound Transit to: <ul style="list-style-type: none"> • Implement safety improvements along Martin Luther King, Jr Way S; and improve the safety of walking, rolling, and biking access to light rail station areas. • Develop plans for the West Seattle Ballard Link Extension to provide multiple entrances on arterials. | Long term/ongoing | ST | |
| 6.2.4 | 06 - Partnerships | 16 - Strengthen partnerships with state and regional transportation partners | Collaborate with King County Metro to: <ul style="list-style-type: none"> • Continue to identify transit stop safety enhancements and opportunities to implement individually and in partnership. • Review Metro's post-incident reporting to determine if these reports provide actionable information for SDOT's Vision Zero efforts. • Ensure drivers have training materials on operating buses around new and changing right-of-way designs. | Long term/ongoing | T&M | |
| 6.2.5 | 06 - Partnerships | 16 - Strengthen partnerships with state and regional transportation partners | Collaborate with Public Health—Seattle & King County to: <ul style="list-style-type: none"> • Identify and advance injury prevention initiatives that are focused on system design and systems-level change • Share resources through the King County Target Zero task force. • Collaborate on outreach opportunities like distributing bike helmets • Provide materials or resources that expand countywide practitioner and partner understanding of Vision Zero and Safe Systems principles and practices. | Long term/ongoing | PDD, TOD | |
| 6.2.6 | 06 - Partnerships | 16 - Strengthen partnerships with state and regional transportation partners | Collaborate with the Port of Seattle/Northwest Seaport Alliance (NWSA) to: <ul style="list-style-type: none"> • Implement a bicycle/truck safety event ("road-eo") in mid-2023. • Review NWSA recommended guidelines for bike access and safety near NWSA terminals and incorporate into SDOT bike facility guidelines as appropriate. • Encourage use of safety features on trucks, such as side guards and larger mirrors. • Continue to look for opportunities to move freight in smaller vehicles where possible. | Long term/ongoing | TOD | |

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| 6.3.1 | 06 - Partnerships | 17 - Strengthen partnerships with other state and regional agencies, organizations and institutions | Collaborate with the University of Washington (UW) and other research organizations to: <ul style="list-style-type: none"> • Complete BPSA Phase 3. • Identify strategies to make goods delivery safer and more sustainable (UW Urban Freight Lab). • Continue and consider expanding research efforts with the Harborview Injury Prevention Research Center, building on lessons learned from research conducted to date on shared mobility. • Explore opportunities to improve our understanding of the effectiveness of educational projects and programs. | Long term/ongoing | PDD/TOD/T&M | |
| 6.3.2 | 06 - Partnerships | 17 - Strengthen partnerships with other state and regional agencies, organizations and institutions | Collaborate with affordable housing partners and service organizations to: <ul style="list-style-type: none"> • Share information and provide resources to support efforts to site shelters and transitional housing in areas with safe access to basic services. • Provide information on using Seattle’s transportation system. | Long term/ongoing | T&M | OEEI |
| 6.3.3 | 06 - Partnerships | 17 - Strengthen partnerships with other state and regional agencies, organizations and institutions | Collaborate with transportation and safety advocacy, mobility justice and environmental justice organizations to: <ul style="list-style-type: none"> • Build and maintain a relationship with advocates, including regular check-ins to demonstrate progress, challenges and opportunities. • Communicate with organizations led by those most impacted by traffic violence, particularly BIPOC-led organizations. | Long term/ongoing | TOD/DO (Comms) | |

Appendix B: Public Engagement Summary of Findings

Overview

The Vision Zero top-to-bottom review was commissioned by Director Greg Spotts on his first day on the job to provide an assessment of the department's progress towards meeting Seattle's Vision Zero goal to end traffic deaths and serious injuries on city streets.

After publication in February 2023, the findings of the review were shared with elected officials, stakeholders, and members of the community to provide important input on the recommendations that will be incorporated into SDOT's upcoming update of the Vision Zero Action Plan.

Engagement tactics included:

- online feedback form
- presentations at community meetings and boards
- social media and blog posts
- gained media

The following is a summary of the feedback that was provided during the engagement period from February through May 2023.

Online and Email Feedback

We launched an online survey to gather community feedback about the Vision Zero Top-to-Bottom Review. The survey was open from February 23 to June 15, 2023, receiving a total of 162 responses.

Question: Please let us know if you have any feedback about our report or the momentum-building actions we're pursuing. We're especially curious what big ideas the report inspires in you that can make Seattle streets safer for everyone.

The open-ended question allowed for a variety of responses that touched on many topics. The main categories of feedback are shown in the table below. Many respondents offered complex replies that could be included in multiple categories. To account for this, feedback was categorized for up to two topics based on the most overarching theme.

| Topic | Percentage of Responses |
|---|-------------------------|
| Momentum Building Actions | 33% |
| Street Design: In favor of street design improvements | 26% |
| Pedestrian & Bike Concerns | 17% |
| Enforcement | 16% |
| Overall Report | 12% |
| Pedestrian & Bike Behavior | 10% |

| | |
|---|----|
| Speed Limits: In favor of stricter speed limits | 8% |
| Speed Limits: Not in favor of stricter speed limits | 3% |
| Street Design: Not in favor of street design improvements | 2% |
| Community Engagement & Outreach | 2% |
| Equity Considerations | 2% |
| Funding | 1% |
| Driver Education | 1% |

Key Takeaways

- SDOT needs to take immediate steps to protect people walking, biking or rolling, and should be held accountable for taking further actions beyond those outlined in the review.
- Streets need to be redesigned to slow down traffic and provide safe, accessible options for other modes of travel.
- The Momentum Building Actions and Key Recommendations should be bolder to achieve Vision Zero.

Momentum Building Actions

Overall, the sentiment about the Momentum Building Actions was that they were not doing enough to meet our Vision Zero goals. Of the 53 respondents who provided feedback, most comments were related to automated enforcement, no turn on red, and leading pedestrian intervals (LPI).

- **Phase in additional no turn on red signs at downtown intersections**
 - Overall, respondents were in favor of implementing more no turn on red signage across the city, with many requesting the policy be implemented at all intersections.
 - For those respondents that were not in favor of no turn on red, they expressed concerns regarding the environmental impacts of idling vehicles and confusion for people driving.
- **Accelerating leading pedestrian intervals (LPI) rollout where existing signal systems can support it**
 - Respondents agreed with increased implementation of LPI, but many expressed that this measure wasn't enough on its own and needed to be part of a suite of pedestrian safety measures at intersections.
- **Partner with Sound Transit to implement a series of improvements along Martin Luther King (MLK) Jr. Way S to enhance safety for all travelers**
 - This topic received fewer comments, but the comments received were from users of MLK Jr. Way S. Those users discussed feeling unsafe using the road and identified the need for street design improvements to reduce vehicle speeds.
- **Engage the public on automated enforcement to address equity concerns about future expansion in neighborhoods with many fatalities and serious injuries**
 - This topic received the most feedback from respondent of the five momentum-building actions, and most respondents were in favor of expanding automated enforcement.

Most comments want to see more immediate action to expand use of automated enforcement cameras without a lengthy public feedback period but acknowledged the importance of implementing the policy equitably.

- **Elevate City Traffic Engineer to a new Chief Safety Officer role**
 - No comments addressed this Momentum Building Action.

Other Feedback

- Forty-two respondents called for more aggressive design interventions to reduce speeding and increase safety for walkers and bicyclists. Many of these comments focused on arterials and asked for measures such as protected bike lanes, road diets, and lane reductions.
- Twenty-four respondents wrote about the need to increase speed and traffic enforcement to reach Vision Zero. Many comments discussed adding physical enforcement at areas with newly added safety measures such as no turn on red or reduced speeds to increase compliance.

Community Meetings and Boards

SDOT presented the findings of the Vision Zero Top-to-Bottom Review at public meetings throughout March and April 2023.

| Group | Date |
|---|----------|
| City Council Transportation Committee | March 7 |
| Levy Oversight Committee | March 7 |
| Seattle Bicycle Advisory Board/Seattle Pedestrian Board (joint meeting) | March 8 |
| School Traffic Safety Committee | March 17 |
| Seattle Freight Advisory Board | March 21 |
| Pedestrian Access Advisory Committee | March 21 |
| Transit Advisory Board | March 22 |
| Transportation Equity Workgroup | April 10 |
| Downtown Seattle Association Policy Sub-Committee | April 11 |

The presentations focused on:

- Sharing the findings and how they will inform future decisions
- Discussing the five momentum-building actions that will be implemented in 2023
- Welcoming public input and feedback from community members as we update the Vision Zero Action Plan

The next section outlines the key takeaways from feedback provided in the meetings outlined above, as well as letters provided by these and other community groups since the publication of the review.

Key Takeaways

- General support for the department's focus on safety and implementing measures to achieve Vision Zero goals in an expedited manner.
- Street design improvements need to be the priority to improve safety for people walking, biking and rolling, with an emphasis on arterials.
- Automated enforcement needs to be more equitable and less punitive.

Momentum Building Actions

- **Phase in additional no turn on red signs at downtown intersections**
 - Feedback was supportive of no turn on red. The Pedestrian Access Advisory Board shared the need to consider the impact of safety measures to blind and deaf individuals. An example was concerns that leading pedestrian intervals don't work for blind people.
- **Accelerating leading pedestrian intervals (LPI) rollout where existing signal systems can support it**
 - LPI was seen as an effective safety measure and there was support for expansion as a near term action.
 - The Pedestrian Access Advisory Board shared the need to consider the impact of safety measures to blind and deaf individuals. An example was concerns that leading pedestrian intervals don't work for blind people
- **Partner with Sound Transit to implement a series of improvements along Martin Luther King (MLK) Jr. Way S to enhance safety for all travelers**
 - Most important measure for achieving Vision Zero is to redesign dangerous streets, including MLK Jr. Way S
 - Safety improvement measures along MLK Jr. Way S are necessary to help amend past inequities in street design in south Seattle.
- **Engage the public on automated enforcement to address equity concerns about future expansion in neighborhoods with many fatalities and serious injuries**
 - Recommend first time offenses at speed cameras be a warning
 - Consider community service or educational opportunities in place of fines
 - Need education and communication with communities to ensure that they are fully informed if this measure is increased
 - Distribute cameras equitably across all neighborhoods
 - Revenue generated from automated enforcement should be used to invest in safety measures within the neighborhoods that fines are collected
 - Address surveillance concerns by documenting and publicizing use of data collected by cameras
- **Elevate City Traffic Engineer to a new Chief Safety Officer role**
 - City Traffic Engineer and Chief Safety Officer should be two different roles within SDOT to ensure focus on both safety and operations

Other Feedback

- Need to budget for safety improvements to show commitment to this as a priority
- Encouraged SDOT to review data and focus interventions on the root cause at each location.
- Shared concerns that reducing lane width and reducing speeds too much would impact freight movement and lead to unintended safety issues and increased prices on goods.

Attachments: Letters Received

- Policy paper on getting Vision Zero back on track; Seattle Neighborhood Greenways; November 30, 2022
- SDOT's Vision Zero Review and Its Shared Micromobility Program, Letter to the Seattle Pedestrian Advisory Board; Doug MacDonald; April 12, 2023
- Automated Traffic Enforcement Preliminary Recommendations; Whose Streets? Our Streets!; May 2023
- Comments on Vision Zero Top to Bottom Review; Seattle Bicycle Advisory Board and Seattle Pedestrian Advisory Board; May 1, 2023
- Seattle Freight Advisory Board Comments on Vision Zero Top-to-Bottom Review; Seattle Freight Advisory Board; May 24, 2023
- Recommendations on Vision Zero Top to Bottom Review; SDOT Transportation Equity Workgroup; June 2, 2023

Dear Director Spotts,

Thank you for your “top to bottom” review to get Vision Zero back on track. Below we have outlined some of the best strategies we see for making progress. We stand ready to support the department as it works to make our streets safer for all.

Thank you for your leadership,

Gordon Padelford
Executive Director



Problem: 80% of pedestrian fatalities in Seattle happen on multilane arterials.

Solution: The single most important thing the city can do is redesign dangerous streets.

Reducing the number of lanes and converting the extra space to widened sidewalks, protected bike lanes, bus lanes, or even planting strips for street trees is the most effective strategy. The West Seattle bridge repair project demonstrated that SDOT can still do big things, well, and quickly. SDOT can deliver on safe street projects with a similar proficiency if it has mayoral backing.

- Aurora Ave: 12 people were killed** on Aurora in the last three years. SDOT’s study for improvements is underway.
 - Ask:** Support the implementation of a robust Aurora Ave “demonstration project” as defined by the state legislature through holistic “all hands on deck” inter-departmental approach, building towards a bold vision for the entire street.
- MLK Way S: 9 people were killed** on MLK in the last three years. People continue to get hurt along this poorly designed corridor, and efforts to fix it have been lacking.
 - Ask:** Improve pedestrian crossing safety and implement protected bike lanes here (the only usable N-S route in the Rainier Valley in the bike plan).



- SODO: 18 people were killed** in SODO in the last three years. Many streets in SODO are dangerously and unnecessarily wide, lack sidewalks, protected bike lanes, and have few or perilous crosswalks.

- Ask: Reject the false choice between freight/blue collar jobs, and the safety of people trying to get to those jobs — the movement of reliable freight and safe movement of people can coexist in #OneSeattle. Ask them to come back to you with a holistic plan for SODO safety.
- Ask: Implement interim improvements on 4th Ave where many people have died, and study the effects afterwards rather than tying up modest improvements in years of delay.
- Ask: Implement the Georgetown-Downtown bike route expeditiously.

- Other dangerous arterials and the Seattle Transportation Plan:**

- Ask: SDOT should begin to develop bold safety redesigns for other known dangerous streets such as Rainier Ave S and Lake City Way. These redesigns should be incorporated into the Seattle Transportation Plan and funded in the next transportation levy and through state and federal sources.

Solution: Speed cushions are the most cost effective way to reduce speeding, while still allowing for freight, transit, and emergency service vehicles to move efficiently. The FHWA “field tests have shown speed cushions to reduce general vehicle speeds while providing little to no delay to fire vehicles” ([FHWA traffic calming Eprimer Module 5](#)).

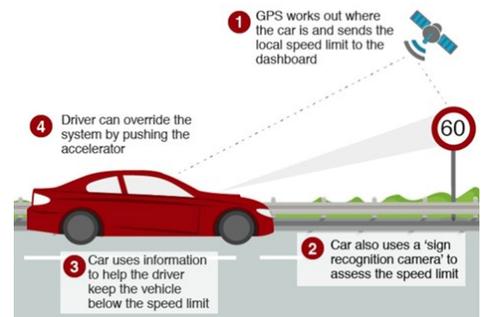
- Ask: Work with the Fire Department to test this solution by adding speed cushions along arterials around the city with known speeding issues, and measure SFD response times and the number of crashes. This solution should be rapidly deployed on dangerous arterials across the city.

Solution: Intelligent Speed Assistance systems are an incremental step towards vehicles that do not exceed the speed limit. This modest intervention alerts drivers that they are exceeding the posted speed limit. NYC is beginning to implement it in municipal vehicles, and all cars sold in Europe will have the technology by 2024.

- Ask: All new municipal fleet purchases should have ISA technology installed.

Dangerous Sodo roadway may get emergency makeover

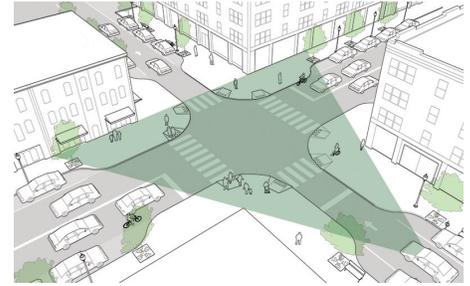
July 21, 2022 at 6:00 am | Updated July 21, 2022 at 9:27 am



Problem: 59% of all pedestrian fatalities occur at intersections.

Solution: Improve visibility at intersections: Hoboken, New Jersey has reached Vision Zero, and credits much of their success to making it easier to see at intersections by restricting illegal parking with posts or curb bulbs, while slowing down turns.

- Ask: Start a visibility at crosswalks initiative for every crosswalk.



Solution: Raised crosswalks: 66% of arterial intersections lack a crosswalk. Raised crosswalks reduce crashes by 45% according to the FHWA.

- Ask: Implement raised crosswalks in school zones, transit hubs, business districts, and other important pedestrian destinations.



Solution: Pedestrian head start signals (AKA leading pedestrian intervals) reduce serious collisions by 35%. Seattle has made great progress on this!

- Ask: Make pedestrian head start signals the default at all intersections.

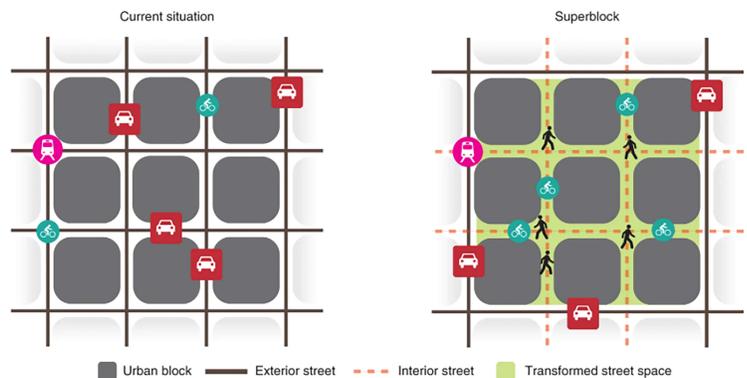
Solution: Designated Turn Phases: 22% of all pedestrian collisions happen with cars turning left at traffic lights, and 11% when they turn right. Legalizing right on red increased pedestrian crashes 60%. San Francisco found banning right on red also reduced crosswalk blocking by 70%.

- Ask: Implement a designated left turn phase at every signalized intersection where left turns are allowed. Ban right on red as the default for every intersection.



Solution: Superblocks. Barcelona-style superblocks create low-traffic zones in places with a high concentration of pedestrians, greatly reducing their exposure to potential dangers. When constructed properly, superblocks use diverters that reduce both the volume of traffic and the number of conflict points at intersections. The key traffic diversion elements can be constructed at very low cost using paint and plastic posts, with hardscape added later. In addition to addressing a problem, superblocks create opportunities for public space, commerce, recreation, and community-building.

- Ask: Craft policies and plans (like the STP) to support the creation of superblocks and begin pilot projects.



Problem: 80% of people killed while biking happened where there are no bike lanes

Solution: Build protected bike lanes. Protected bike lanes make streets safer for people who bike, and encourage people of all ages, abilities, and backgrounds to bike. Furthermore, they actually make the road [safer for everyone](#) regardless of how people travel.

- Ask: Implement the existing Bicycle Master Plan and #UnGapTheMap.
- Ask: Craft an even bolder vision for bicycling in the new Seattle Transportation Plan and the next levy (the old BMP should not be the limit for our city's vision).



Problem: Insufficient funding

Solution: Budget like safety is the top priority. Any [other department that had faulty infrastructure](#) that was killing people on a routine basis would pause other priorities and address their urgent safety issues. Budget increases in recent years by the council and mayor are important steps in the right direction, but many critical safety projects remain unfunded or underfunded.

- Ask:** Increase proposed funding for Vision Zero improvements to meet the need.

Problem: Critical safety projects are frequently delayed, watered down, or canceled all together. Historically, even after projects have gone through planning and are fully funded, the two biggest blockers to implementing life saving projects are the mayor's office and old fashioned thinking within SDOT.

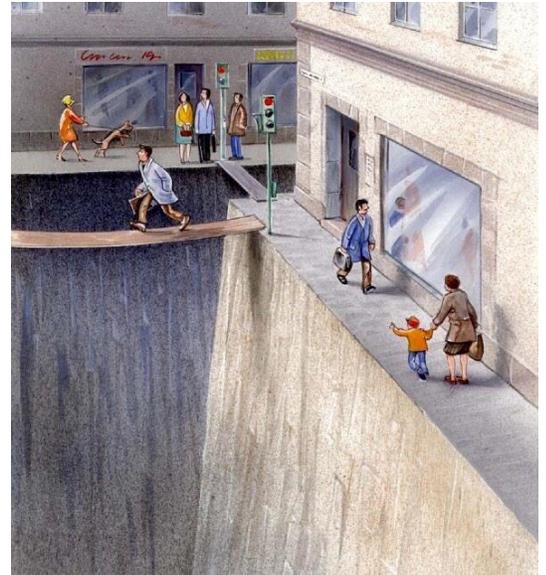
Solution: Executive leadership. There is simply no substitute for direction from the mayor's office that safety must be the city's top transportation priority — especially when it's challenging or controversial. Pronouncements from Mayor Harrell on Vision Zero are welcome, and safety must continue to be the top priority, if we are to make real progress.

- Ask: Clear, consistent, and strong direction from the mayor and SDOT director prioritizing safety over speeding, parking, assumptions about property values, etc.



Solution: Improve project evaluation. Despite adopted city policies on safety, health, equity, climate, age friendliness, accessibility, and other factors, many SDOT projects are still largely evaluated and presented to the public and decision makers for evaluation based on to what extent they impact single occupancy vehicle delay.

- Ask: When developing projects or alternatives for internal or public review, present a holistic view of the tradeoffs. Make moral choices clear. Prioritize safety above other considerations. *EX: if implemented, this safety project would likely reduce fatalities, increase accessibility, reduce the burden of crashes on people of color, make the street more accessible for people of all ages and abilities, but increase car travel time over the status quo.*



Solution: Improve the project development process. Old fashioned engineering thinking within the department that prioritizes the movement of single occupancy vehicles over our city’s safety, health, equity, and climate goals must come to an end. Historically, many of these barriers have arisen when projects need approval from the operations division.

- Ask: Change the people, priorities, policies, or power structure within the department to remove the impediments to rapidly and boldly developing and implementing safety projects.
- Ask: Strategies and projects identified as important in the BPSA or through future similar analyses should be greenlit by default rather than on a case by case basis.



Solution: More thoughtful community engagement. It is essential that SDOT conduct community engagement to determine and mitigate potential impacts caused by safety projects, and to co-create placemaking projects.

- Ask — **for safety projects:** Engagement should seek to understand real potential harms (such as the loss of a loading zone for a business, or the impact the lack of a crosswalk would have on a senior center) of a project and address them as best as possible, while separating out mere complaints (such as those displayed at right). By doing this, the public and decision makers can better understand the real impacts of a project and mitigate them as necessary, while not getting bogged down with inevitable complaints about change.



- Some residents are concerned that illegal parking spaces will be not available for use any longer.
- A longtime resident was concerned that with the very large increase in their home's value that they would need additional liability insurance to cover the cost of an incident with a SHS user, if it were to occur.
- Resident not able to enjoy their cherry tree through their window because of street signage and people using in the roadway.

- Ask — **for placemaking projects:** Projects that are primarily about creating community spaces such as parklets, plazas, street art, and open street events should receive a more rigorous level of community engagement (compared to safety projects) — namely co-creating the project with SDOT. This will ensure that these spaces best reflect community needs, desires, and become well loved spaces.



Problem: Current enforcement practices are inequitable and ineffective

Solution: Transfer traffic enforcement duties to unarmed City employees. Seattle police issue just 25-40 traffic tickets each day, and those go to Black drivers at a rate three times higher than their share of the population. Unarmed, non-police traffic monitors can more effectively prioritize safety-related stops and reduce biased enforcement and racialized violence.

- Ask: Design a pilot program to explore how traffic enforcement could be civilianized in Seattle and begin the culture shift required to align with SDOT's mission and vision of safety and equity.

Solution: Make automated enforcement more equitable and less punitive. Automated ticketing in Seattle, especially speed cameras, have been shown to have safety benefits, and are a significant step better than enforcement by uniformed police officers. But traffic cameras are disproportionately located in communities of color, and tickets can be a significant financial burden for low-income residents. Before we expand this program, we need to take steps to make it more equitable.

- Ask: When implementing automated enforcement, develop a site-specific plan for additional physical traffic calming improvements and eliminate the need for enforcement in the future.
- Ask: Increase cameras in wealthier areas of the city with fewer people of color to address equity concerns.
- Ask: All cameras should issue warnings instead of tickets for first-time violations. This is likely to be effective, as 95% of Seattle residents never receive a second ticket at a specific camera location.
- Ask: Work with Seattle Municipal Court to set ticket fines based on income or ability to pay, and create additional and more accessible alternative options for those who cannot afford to pay a ticket.



To: Members of the Seattle Pedestrian Advisory Board

From: Doug MacDonald, 902 North 79th Street dbmacdonal@earthlink.net

Date: April 12, 2023

SDOT's *Vision Zero* Review and Its Shared Micromobility Program

By way of making sure to log a public comment, on I want to observe as follows on the continuing topic the new SDOT *Vision Zero* "top-to-bottom" review, with special attention to SDOT's shared micromobility program's adverse effects on pedestrians, and others.

The *Vision Zero* review has inadvertently glaringly highlighted the deficiencies in SDOT's rental e-scooter and e-bike program. It is time for the program either to be fixed, or, as recently done in Paris, respond to the interests of most of the people of Seattle being abandoned if it cannot be fixed.

Interests of pedestrians of every kind, of all ages, and of all abilities and disabilities, are at the core of the program's current flaws. Although the problems are much larger than that, taken as a whole.

What does the *Vision Zero* review say about micromobility?

It must be unfortunately be noted that Director Spotts asked just two SDOT staff members to produce the review, which he stated would be [data-driven, robust, transparent and accountable](#). One of those two staff member's most recent position at SDOT had been to manage the SDOT micromobility program. This may explain how micromobility was presented in the review. The sum of it was the following single six sentence paragraph, that shows every sign of having been written by a program management alumna:

SDOT permits the use of bike share and scooter share, operated in a free-floating format since 2017. Generally, these devices contribute to climate-friendly transportation options and provide an alternative to travel by car. [SDOT reviews collision reports related to these modes and conducted a user survey in 2021 that gleaned a large amount of data from self-reported injuries.](#) SDOT also receives complaints about these devices obstructing sidewalks and complaints of users riding faster than pedestrian speed on sidewalks and making others uncomfortable. **Overall, we find that users of these modes are similarly vulnerable to crashes as others who are walking, rolling, and biking.** While SDOT conducted a survey on which users did report injuries to themselves, we did not find evidence in Seattle of scooter and bike share users causing death or serious injury to others. (Emphasis supplied).

Let's take these five sentences and scrutinize them one-by-one, especially in respect of available data, or SDOT's lack thereof.

Micromobility Injuries.

SDOT reviews collision reports related to these modes and conducted a user survey in 2021 that gleaned a large amount of data from self-reported injuries.

What did the “large amount of data on self-reported injuries” show? Well, it showed hundreds of injuries and by one informed count, about 60 or so injuries that would be “serious injuries” for *Vision Zero* classification. Despite information collected by SDOT’s own user survey, the only injury data SDOT has ever released was in the very shallow pilot program evaluation issued in April 2022 ago on a four quarters of 2020- 2021 data.

How do we know the shallowness of the SDOT report? Because we can compare it to the data available from San Francisco for the same period of time for a program very closely comparable in size to SDOT’s. Here is what the SDOT data looked like against the much more rigorous data collection performed in San Francisco’s program by the San Francisco Municipal Transportation Agency (SFMTA).

| Two Cities 2021 | Scooter rides | Scooter collisions | Fatalities | Serious Injuries | Moderate -to Minor injuries |
|------------------------|----------------------|--|-------------------|-------------------------|------------------------------------|
| San Francisco | SFMTA | Data from SF PD Traffic Collision Data Base * | | | |
| 2021 | ≈1.7 million | 153 | 1 | 21 | >100 |
| Seattle | SDOT | Data assembled by SDOT. If SPD has a comparable data base to SF PD, SDOT Micromobility Program seems not to have used it. | | | |
| 10/20 – 9/21 | ≈ 1.5 million | 18 | 1 | 5 | 10 |
| | | [*] https://missionlocal.org/2022/03/scooter-collisions-in-city-rose-58-percent-last-year/ . Includes private as well as SFMTA scooters | | | |

It is bad enough that, unlike San Francisco, SDOT has never actually instituted a mechanism by which it could reliably track its micromobility program’s injuries. From the foregoing table, it is inescapable that the SDOT’s numbers are not credible and that in particular they substantially understate the likely prevalence of serious injury, which is at the very core of the *Vision Zero* problem. Undoubtedly that would be much clearer if SDOT had not suppressed the actual returned data from its user-reported injuries in its own user survey.

Obstructing sidewalks and illegally riding on sidewalks.

SDOT also receives complaints about these devices obstructing sidewalks and complaints of users riding faster than pedestrian speed on sidewalks and making others uncomfortable.

Indeed, Seattle citizens have vigorously inveighed against sidewalk scooter riding (which is illegal, worth noting, though not mentioned above) and sidewalk obstructions ever since the program began. San Francisco has had the same problems. San Francisco, however, has stepped up to the obstructing problem in particular. Its parking enforcement officers (*not* police officers) patrol San Francisco every day and slap citations (\$100) on the devices that aren’t in compliance with the programs’ parking requirements, which are much like Seattle’s (except that unlike Seattle, the requirements are co-issued by the Mayor’s Office on Disability

in conjunction with SFMTA). By contrast, SDOT *very occasionally* dispatches interns to do a “compliance audit” for a couple of hours in some limited area and report back on devices obstructing the sidewalks in contravention of requirements. Here are the **data** on how the vendors in the two cities are called to account for non-compliance of devices with parking requirements:

| Micromobility Enforcement: A Tale of Two Cities. One paying attention. One not. | |
|--|--|
| San Francisco | Seattle |
| Parking citations (2022) : 13,867 | Parking citations (2022): 838 |
| Riding citations (2022): 790 | Riding citations (2022): None (?) |
| Fines: Lime (2022): \$509,050 | Fines Lime (2022): \$6520 |
| Bird (2022): \$669,350 | Bird (2022) \$2060 |
| Spin (2022) \$419,200 | Link (2022) \$2840 |
| | Veo (2022) \$2600 |
| Complaints via 311 (2022): 8273 | Complaints: ? |

The data tell a compelling story of SDOT’s inattention to the obstruction problem, compared to San Francisco. Obstructions are a significant injury risk to pedestrians, especially people with mobility and vision impairments. Last month Bird blamed San Francisco for being too tough and pulled its e-scooters out of San Francisco, ostensibly because with such significant levels of fines, it couldn’t make money. The Bird spokesman said it was really unfair: Bird could operate just fine in places like, for example, Seattle and Nashville. Indeed.

Meanwhile, on the problem of sidewalk riding, San Francisco has also used its leverage to get Lime to pilot its [newest and best sidewalk-riding detection and avoidance scooters](#) in San Francisco (and Chicago), Why didn’t Seattle, with the same “No Sidewalk Riding” law as both San Francisco and Chicago, get a piece of the top-of-the-line Lime scooters?

Vulnerability to crashes.

Overall, we find that users of these modes are similarly vulnerable to crashes as others who are walking, rolling, and biking.

How and where did SDOT “find” [*sic*] this remarkable statement offered as a fact. It is quite incomprehensible for SDOT to write that it is as dangerous to be a scooter rider as it is to be a pedestrian. Or a wheelchair user who is “rolling.” Is there an uncited study somewhere that supports SDOT’s “finding?”

SDOT has developed no data foundation of its own on which it could “find” such facts. Therefore, one is relegated to start with a literature review, which there is no indication SDOT made, either. Had it done so, it would quickly have located a long-used benchmark as a point of departure and also on a peer-reviewed estimate for e-scooter riders’ crash risk to themselves and others.:

Injuries per million trips: Motorcycles: 104. Bicycles: 15. Passenger cars: 8. Walking: 2. The results for e-scooters developed in [a big study published almost exactly a year ago](#): **For e-scooters, 115 injuries per million trips.**

There is a ton of related material that would take a long paper to thoroughly delve into. But it could be done, and it it’s not hard.

But let’s just focus on risks relative to bicyclists. Vendors seem to like to claim scooters are just as safe as bicycles. That is certainly contrary to a body of peer-reviewed studies.

For example, Queen Mary University of London recently has [released a study](#) comparing cyclist and e-scooter user emergency room admissions in England and Wales. It evaluated the experience of 2538 injured cyclists and 293 injured e-scooter users, a disproportionately higher number of e-scooter riders than their relative share among all riders. By 60% to 47%, the e-scooter riders were more likely to require admission to critical care. Injury patterns showed that trauma involving the head and arms/legs were the most common causes of serious e-scooter injury and they were more common than in cyclists: 35% vs 20% for head injuries; 40% vs 27% for leg/arm injuries. Thirty-seven out of the 41 critical injuries (90%) among the e-scooter riders were head injuries. E-scooter riders were nearly four times more likely to be drunk or otherwise impaired - 26% compared with 7% - and less likely to have been wearing a helmet, 7% compared with 47% for cyclists. [Helmets are required by law in Seattle, witch SDOT has done nothing to effectuate, as can be observed on the sidewalks and streets everyday.] According to the study’s author, the study did not take into account injuries to pedestrians or other road users, and only looked at patients admitted to hospital, meaning the true impact of e-scooter injury could be even greater. He stated that “use may result in a higher relative rate of hospital admission due to significant trauma than bicycles and, in particular, higher rates of severe head injury.”

In London, Imperial College (U.K.’s closest counterpart to MIT, extensively examined the biomechanics of falls from stand-up e-scooters, [highlighting their significantly large risk of head injuries](#).

Some of what can be adduced about scooter riding risk is simple common sense. Cautionary advice is readily discovered and dispensed:

Are Electric Scooters More Dangerous than Bicycles?

By McGee, Lerer & Associates

Electric scooter companies like Bird and Lime claim that e-scooters are no more dangerous than bicycles. We vehemently disagree. As personal injury attorneys, we know firsthand how dangerous electric scooters can be. In this blog, we tell you 6 reasons why electric scooters are more dangerous than bikes.

<https://www.santamonica InjuryLawFirm.com/blog/2018/december/are-electric-scooters-more-dangerous-than-bicycl/>

While SDOT conducted a survey on which users did report injuries to themselves, we did not find evidence in Seattle of scooter and bike share users causing death or serious injury to others.

SDOT “did not find evidence in Seattle” (emphasis supplied) of micromobility users are causing death or serious injuries to others? True enough -- because SDOT has never looked for such evidence in Seattle. (Of course, no follow-up SDOT *general population* survey though promised a year ago, let alone any other mechanism for finding the facts in Seattle).

Elsewhere, especially because pedestrians and others injured by scooters are vulnerable through no agency of their own apart from being in the path of a scooter rider, unlike those who exercise agency as license rental scooters (SDOT) or use them (careless riders), the topic has certainly had attention. There is almost no end of evidence of e-scooter injuries to pedestrians, as well as to cyclists. There the best **data** are available from the U.K. Transport Ministry report on the frequency of scooter collisions and the victims who are injured. The Transport Ministry summary of statistics from 2021 showed:

Reported collisions and casualties involving e-scooters

Table 1 shows the number of reported road casualties in collisions involving e-scooters in Great Britain in 2021, by road user type. Excluding e-scooter casualties themselves the main types of other road users involved in collisions involving e-scooters are pedestrians and cyclists.

Table 1: Number of reported casualties in collisions involving e-scooters, by road user type, Great Britain, 2021

| Road user type | Killed | Serious (adjusted) | Slight (adjusted) | Total |
|------------------------|--------|--------------------|-------------------|-------|
| E-scooter user | 10 | 331 | 761 | 1,102 |
| Pedestrian | 0 | 67 | 162 | 229 |
| Pedal Cyclist | 0 | 20 | 45 | 65 |
| Motor Cyclist | 0 | 3 | 12 | 15 |
| Car Occupant | 0 | 0 | 17 | 17 |
| Van Occupant | 0 | 0 | 2 | 2 |
| Bus Occupant | 0 | 0 | 2 | 2 |
| Other Vehicle Occupant | 0 | 0 | 2 | 2 |
| Total | 10 | 421 | 1,003 | 1,434 |

In one year in the U.K., there were more than 1400 injury victims of e-scooters including 421 serious injuries. Scooters users themselves represented 79% of those seriously injured (plus ten fatalities). Pedestrians accounted for 16% of the seriously injured. Cyclists accounted for 6% of

the seriously injured. *Vision Zero* should pay attention to those numbers of serious injuries, if nothing else,

Earlier [data from London police](#), on scooters operating in London even before the arrival of rented scooters, showed more than 200 injuries to e-scooter riders injured in two years, along with 39 incidents of pedestrians being hurt by being struck by an e-scooter.

What was found in San Francisco's traffic data base for 2021 was 153 collisions involving e-scooters (private as well as shared). Police found the e-scooter operator at fault in 55% of collisions. Collision victims included nearly ten percent pedestrians.

Chicago's [2020 pilot e-scooter program](#) tallied about 540,000 trips and yielded about 171 emergency room visits, 5% of which were pedestrians injured by an e-scooter rider.

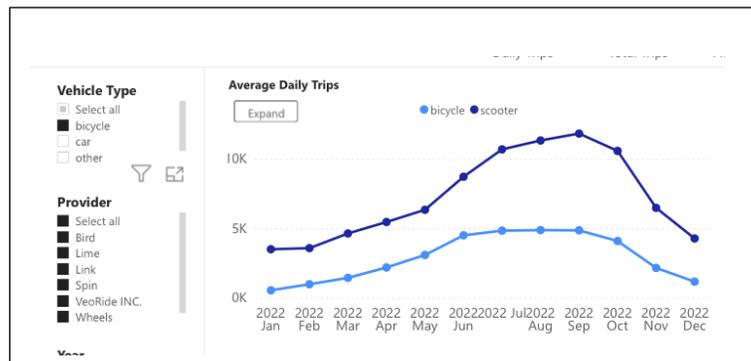
A long litany of pedestrian injury and fatality accounting from around the country and the world is pretty easy to assemble with short hours of Web surfing, It is noteworthy how prominently problems of pedestrian injury (and fatality), sidewalk riding and sidewalk obstruction figured in the debate in Paris recently [culminating in the resounding rejection by voters](#) in a plebiscite of the e-scooter rental program's extension in Paris.

Climate-friendly alternative to cars.

“Generally, these devices contribute to climate-friendly transportation options and provide an alternative to travel by car.”

“Climate-friendly” is the e-scooter industries’ euphemistic retreat in the face of a barrage of evidence pushing back against earlier claims that e-scooters are “green” tools in the fight for sustainability and against climate change. The problem, of course, was that on a life cycle basis, including manufacture, fossil-fuel global and local distribution dependence, frequent van and box truck “redeployment” of devices left scattered around the city, and quickly-worn-out vehicles in the waste stream, it was very unlikely that scooter trips contributed to net GHG reductions for the planet or any other particularly “green” goals either globally or locally.

Are rented e-scooters really capable meaningfully off-setting private motor vehicle use Seattle? Or do they substitute mostly for biking, walking or transit trips? That is not an issue SDOT has ever seriously examined. Nor has a broad contention that rented e-devices might cut down on car dependence in Seattle ever been stood up against SDOT's own data that *Seattle is very climate unfriendly* to shared micromobility as a substitute



for trips in private cars. A narrow *seasonal* solution to car use in Seattle will not transform auto-centric Seattle, unfortunately,

If on the average day of the peak month of September, 2022, there were 12,000 riders on SDOT's rented e-scooters, that would be one ride that day for every 625 residents of Seattle. What fraction is 12,000 rides on e-scooters even of Seattle's total average day bus and light rail trips, let alone car trips? And then in January, February, March, April, November and December? Not an alternative to very many private car trips, that's for sure.

Will SDOT please be more forthcoming about its public policy calculation that elevates the possibility of an "alternative" for a very small number of people (exactly who, we should tell us, by age gender and ability, and many of them obviously, from simple observation, tourists unfamiliar with our laws, our traffic, or the notion of basic courtesy to others) of not using a car. At the imposition of what costs on all the rest of us and *everyone's* basic right to accessible, safe use of our sidewalks, our last refuge and protection from living with motor vehicles all around us, now including SDOT's speeding, rudely and carelessly operated, motorized scooters. What "alternative" has SDOT's favoring of rogue shared *micromobility* left *all the rest of us* for *ordinary* mobility with comfort and dignity in our own city?



Whose Streets? Our Streets!

Automated Traffic Enforcement Preliminary Recommendations

About our group

Whose Streets? Our Streets! (WSOS) is a BIPOC (Black, Indigenous, and People of Color)-focused workgroup, convened in July 2020 by Seattle Neighborhood Greenways. We use a pro-equity, anti-racist framework to review laws and practices related to transportation in Seattle. We are committed to advocating for the specific needs of all street users, but particularly the communities of color whose safety and mobility has historically been restricted by unjust public planning and policies. Since 2022, we have been conducting community outreach and engagement under contract with the Seattle Department of Transportation (SDOT) regarding what it means for BIPOC communities to feel safe while traveling in Seattle. To learn more about us, visit our website: <https://www.our-streets.org/>. You can contact our group by email at wsos@seattlegreenways.org.

Background

Automated speed enforcement has been shown to reduce roadway fatalities and injuries by 20-37% nationwide¹, with Seattle seeing a 71% drop in traffic collisions during hours that cameras are activated in school speed zones². Automated enforcement (henceforth “AE”) cameras – including school zone speeding, red light, intersection blocking, and transit lane enforcement cameras – now issue nearly 200,000 traffic tickets annually in Seattle, about 50 times more than police officers give out in traffic stops³. The City of Seattle plans to double its number of school zone speed enforcement cameras this year⁴, representing a dramatic expansion of the use of punitive ticketing to achieve traffic safety. There are currently 35 speed cameras at 19 schools across the city⁵; a doubling would presumably require the installation of 35 more speed cameras.

¹ National Highway Traffic Safety Administration (NHTSA) and Federal Highway Administration (FHWA), “Speed safety camera program planning and operations guide” (January 2023), <https://highways.dot.gov/sites/fhwa.dot.gov/files/Speed%20Safety%20Camera%20Program%20Planning%20and%20Operations%20Guide%202023.pdf>.

² Bradley Topol and Allison Schwartz, “Automated enforcement: Racial Equity Toolkit – preliminary findings” [presentation slides], Seattle Department of Transportation (SDOT) Vision Zero Team (September 22, 2022), <https://drive.google.com/file/d/12ABOJwthsLOgq35xRnr3WVarAfccdinwe/view>.

³ Seattle Municipal Court, “Vehicle infractions issued by infraction type” (accessed May 2023), <https://www.seattle.gov/courts/about/data-and-publications/general-data-reports/vehicle-infractions>.

⁴ Mike Lindblom, “South Seattle council member seeks more walk-bike safety funds,” *Seattle Times* (November 17, 2022), <https://www.seattletimes.com/seattle-news/transportation/south-seattle-council-member-seeks-more-walk-bike-safety-funds/>.

⁵ Seattle Police Department, “Automated photo enforcement program - school zone speed cameras” (accessed May 2023), <https://www.seattle.gov/police/community-policing/community-programs/school-zone-enforcement>.

At the same time, a recent SDOT Racial Equity Toolkit (RET) analysis of automated traffic enforcement⁶ has revealed stark racial and economic disparities in the placement and financial impacts of existing AE speed and red light cameras in Seattle. These findings are similar to disparities in AE camera placement and impacts identified in Chicago⁷, Washington, D.C.⁸, and other cities, and speak to an ongoing national conversation regarding whether AE ticketing can be implemented equitably and justly^{9,10,11} given that the least safe roadways tend to run through communities of color due to underinvestment in safe infrastructure¹². In its most recent guidance on AE speed cameras, the U.S. Department of Transportation recognized the importance of these considerations, urging that “local governments who explore or are implementing the use of [speed safety cameras] need to consider equity, civil rights, and civil liberties concerns in all stages, from planning to operation to evaluation”¹³.

Within this context, Whose Streets? Our Streets! has been conducting community engagement and outreach related to automated enforcement in Seattle. Our efforts to date have consisted of: (1) a blog post on our website¹⁴ (“What’s next for traffic cameras in Seattle?”), (2) an op-ed in the *South Seattle Emerald*¹⁵ (“Opinion: Seattle’s automated traffic cameras disproportionately target neighborhoods of color”), (3) a community town hall event on automated enforcement (from which we reference learnings from small group discussions and a short paper survey), and (4) a longer online survey. The latter two efforts are described in greater detail below (see section “*Our community engagement to date*”).

Note that our findings and recommendations in this report are preliminary in nature. We plan to continue outreach related to AE impacts and policies at community events throughout the remainder of 2023, and we will update our recommendations according to what we learn.

⁶ Bradley Topol and Allison Schwartz, “Automated enforcement: Racial Equity Toolkit – preliminary findings” (see above).

⁷ Emily Hopkins and Melissa Sanchez, “Chicago’s ‘race-neutral’ traffic cameras ticket Black and Latino drivers the most,” *ProPublica* (January 11, 2022), <https://www.propublica.org/article/chicagos-race-neutral-traffic-cameras-ticket-black-and-latino-drivers-the-most>.

⁸ Jordan Pascale, “Bowser budget proposal calls for repurposing camera ticket money, new task force to look at equity in fines,” *DCist* (April 5, 2023), <https://dcist.com/story/23/04/05/traffic-camera-taskforce-2/>.

⁹ Maya Fegan, “Speeding into the future: The pitfalls of automated traffic enforcement,” *Berkeley Journal of Criminal Law* (April 15, 2021), <https://www.bjcl.org/blog/speeding-into-the-future-the-pitfalls-of-automated-traffic-enforcement>.

¹⁰ Susannah Parsons, “Can automated speed safety systems advance racial and economic equity?,” San Francisco Bay Area Planning and Urban Research Association (SPUR) (April 28, 2021), <https://www.spur.org/news/2021-04-28/can-automated-speed-safety-systems-advance-racial-and-economic-equity>.

¹¹ Axel Santana, Carlton T. Mayers II, Ethan Campbell, Caro Jauregui, and Priya Sarathy Jones, “How automated enforcement can perpetuate inequities in transportation” [webinar recording], Transportation Equity Caucus (May 3, 2023), <https://www.youtube.com/watch?v=HPfVn-DQWVw>.

¹² Adam Paul Susaneck, “American road deaths show an alarming racial gap,” *New York Times* (April 26, 2023), <https://www.nytimes.com/interactive/2023/04/26/opinion/road-deaths-racial-gap.html>.

¹³ NHTSA and FHWA, “Speed safety camera program planning and operations guide” (see above).

¹⁴ Whose Streets? Our Streets!, “What’s next for traffic cameras in Seattle?” (October 12, 2022), <https://www.our-streets.org/the-real-deal/traffic-cameras>.

¹⁵ Ethan C. Campbell and Nura Ahmed, “Opinion: Seattle’s automated traffic cameras disproportionately target neighborhoods of color,” *South Seattle Emerald* (March 1, 2023), <https://southseattleemerald.com/2023/03/01/opinion-seattles-automated-traffic-cameras-disproportionately-target-neighborhoods-of-color/>.

Our recommendations

Based on the perspectives shared with us by BIPOC and lower-income community members as well as our group's policy research, we urge the City of Seattle to take action to improve its automated enforcement (AE) policies and practices in four critical areas:

1. Mitigate the disproportionate impacts of fines and focus on highest-risk behavior
2. Create an equitable citywide distribution of cameras
3. Develop robust policy to prioritize physical street safety improvements before implementing AE ticketing
4. Address surveillance concerns by documenting, publicizing, and strengthening protections around the use of images and data collected by AE cameras

Recommendation #1: Mitigate the disproportionate impacts of fines and focus on highest-risk behavior

We have heard deep concerns about the cost of AE tickets, and in particular school zone speeding tickets, which are \$237 in Seattle. As a flat fine, these tickets present an unequal burden that disproportionately impacts lower-income community members. One participant shared a personal story: *"I was between jobs and had to pay for my medication, and when I got a school zone speeding ticket, I had to choose between paying the ticket or reducing my medication. A warning would have worked just the same on me."* Others noted that *"if one can't pay, there can be big consequences."* Upon learning that 32% of all AE tickets go unpaid in Seattle (according to SDOT's RET analysis¹⁶), one individual pointed out that *"unpaid tickets aren't even a valid deterrent to speeding."*

Multiple attendees suggested that fines be *"based on the severity of the offense, so higher fines for faster speeding"* or that *"higher fines should reflect a higher amount of responsibility,"* and others spoke up for *"giv[ing] grace to first-time offenders"* (the efficacy of which is supported by SDOT's finding that 95% of drivers never receive a second ticket at the same camera location¹⁷). Realizing the steep barriers to accessing existing alternatives to payment, which include performing community service for around 14 hours at minimum wage to pay off a \$237 ticket, one participant expressed that *"the community service alternative option should be paid at a living wage, not minimum wage."* We heard concerns that both existing and proposed future policies may be inaccessible to certain residents: *"Those who can't speak English... can't access the courts because of a lack of translation services." "Fines should be income-based, but often people need to show paperwork and many folks don't have that documentation. Some folks don't have a job. There shouldn't be too many criteria for one to qualify—it has to be accessible, especially for the undocumented community."*

We wish for Seattle's AE camera programs to offer the maximum possible safety benefit while avoiding unnecessary negative financial impacts on low-income community members. To accomplish this, we envision a recalibration of existing fines and payment alternative options towards a structure

¹⁶ Bradley Topol and Allison Schwartz, "Automated enforcement: Racial Equity Toolkit – preliminary findings" (see above).

¹⁷ Ibid.

that would maintain the deterrent effect of AE cameras while reducing ancillary harm associated with overly punitive ticketing.

We recommend that the City of Seattle:

- A. Issue mailed warnings for all first-time violations at each camera location
- B. Reduce the penalties for automated speeding tickets to a low starting value that increases according to the severity of the violation (e.g., \$50 for going 6-10 mph over the speed limit, \$100 for going 11-15 mph over, \$200 for going 16-20 mph over, etc., similar to California's proposed AE pilot legislation, AB 645¹⁸)
- C. Reduce the penalties for all automated enforcement tickets for people with low household incomes as determined by enrollment in a wide variety of existing government financial assistance or benefits programs (similar to California's AB 645¹⁹), with verification occurring automatically without a requirement to provide documentation
- D. Explore vehicle impoundment for egregious repeat offenders (but not escalation of fines, which likely has limited deterrent effect), such that enforcement is focused on drivers whose risky behavior is highly negligent and most likely to cause future traffic deaths^{20,21,22}
- E. Expand alternative options for payment and increase the wage paid for community service
- F. Ensure that translations and translation/interpretation services are made available at all stages of ticket issuance and processing, and that information on how to access court interpretation services²³ is provided at ticket issuance
- G. Initiate a study on future tiered civil penalties based on income or ability to pay in Seattle, with a focus on examining existing barriers to implementation

Recommendation #2: Create an equitable citywide distribution of cameras

We have heard intense frustration with the existing situation of “double jeopardy,” in which communities of color experience the highest levels of roadway speeding, collisions, injuries, and death due to the design of arterials like Rainier Ave S, MLK Jr Way S, and Lake City Way, among others, and then are penalized for poor roadway design by speed cameras that require drivers to slow to 20 mph on roadways designed for higher speeds. SDOT's analysis showed that Seattle's AE cameras have been disproportionately placed in lower-income communities with more people of color (65%) compared to whiter, more affluent communities (18%). This can likely be attributed to the prioritization of unsafe roads during camera placement. As one town hall attendee expressed,

¹⁸ California Assembly Committee on Transportation, “Assembly Bill (AB) 645 bill analysis” (April 14, 2023), https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=202320240AB645.

¹⁹ Ibid.

²⁰ Angie Schmitt, “What can cities do about the most dangerous drivers?,” *Bloomberg CityLab* (April 4, 2023), <https://www.bloomberg.com/news/articles/2023-04-04/how-cities-can-get-the-very-worst-drivers-off-the-streets>.

²¹ Luz Lazo and Emily Davies, “6 million D.C. traffic tickets are unpaid. The worst drivers avoid consequences for years,” *Washington Post* (May 2, 2023), <https://archive.is/EG5SA>.

²² Ryan Calder et al., “Re: Urgent action needed on traffic violence in Washington, D.C.” [letter], multiple organizations, <https://www.dropbox.com/s/r0r2oaby8byluz/>.

²³ Seattle Municipal Court, “Interpreter services” (accessed May 2023), <https://www.seattle.gov/courts/programs-and-services/interpreter-services>.

“What's really unfair is that the streets in Black and brown communities are the most dangerous. The majority of people killed and injured are in District 2.”

The overriding sentiment we heard during our town hall was that *“the city doesn't care about communities of color”* and that *“there appears to be a racial bias in camera placement.”* Solutions offered ranged from removing cameras in areas disproportionately impacted – for example, *“cameras should be taken away from Rainier Ave S”* or *“some cameras should be taken from the South End and equally dispersed throughout the city”* – to balancing the citywide distribution by focusing camera placement on areas with fewer existing cameras yet a need for speed enforcement, particularly dense neighborhoods like Downtown, Capitol Hill, Uptown, and South Lake Union. One participant said: *“There are speeders everywhere – in Ballard, in Laurelhurst, in Loyal Heights. Why target communities of color? If the city is going to put cameras in, they better be everywhere.”*

We recommend that the City of Seattle:

- H. Set a goal of a balanced citywide distribution of AE speed and red light cameras (both a uniform geographic allocation, e.g., between Seattle's seven City Council districts, and a uniform allocation based on demographics and socioeconomic factors, e.g., across the five quintiles of Seattle OPCD's Race and Social Equity Index²⁴)
- I. Prioritize areas of higher advantage according to an up-to-date version of OPCD's RSE Index) when placing additional AE speed and red light cameras, until a balanced distribution has been reached (see Item H above)
- J. Avoid placing further AE speed and red light cameras on roadways within Seattle's highest-disadvantage communities (as determined by the bottom two quintiles of OPCD's RSE Index), unless those roadway segments have site-specific plans developed and funded for future robust traffic calming improvements that will be constructed within a reasonably short timeframe (e.g., 2 years)

Recommendation #3: Develop robust policy to prioritize physical street safety improvements before implementing AE ticketing

With an average of 28 people killed and 180 people seriously injured on Seattle's roads each year²⁵, there is an urgent need to boldly transform how our streets are designed to create true safety²⁶. Many online survey respondents acknowledged this, but still highlighted the safety benefits of AE for their potential utility as a stopgap measure while waiting for physical safety improvements. For example: *“[A camera is] not a replacement for safer street redesign, but it can be deployed much faster, is self-funding, and is shown to alter behavior with proper awareness, signage, and first-violation warnings.”* *“When the city has made the physical changes, the camera can be removed and placed somewhere else.”*

²⁴ Seattle Office of Planning & Community Development (OPCD), “Race and social equity index” (accessed May 2023), <https://www.seattle.gov/documents/Departments/SDOT/NSF/Race%20and%20Social%20Equity%20Map.pdf>.

²⁵ Seattle Department of Transportation (SDOT), “Vision Zero top-to-bottom review – Overview: Momentum-building actions and recommendations” (February 2023), <https://www.seattle.gov/documents/Departments/SDOT/VisionZero/SDOT-Vision-Zero-TopToBottomReview-Overview.pdf>.

²⁶ Seattle Neighborhood Greenways, “Seattle Greenways offers their own 90-day review of SDOT's Vision Zero safe streets campaign,” *The Urbanist* (November 4, 2022), <https://www.theurbanist.org/2022/11/04/seattle-greenways-offers-their-own-90-day-review-of-sdots-vision-zero-safe-streets-campaign/>.

While AE cameras do offer significant safety benefits, school zone speed cameras are only turned on for part of the day and no AE ticket is as effective as permanent, self-enforcing physical changes for reducing speeds and curbing dangerous driving behavior. We heard this sentiment echoed loud and clear by community members in our town hall and surveys, who told us that *“we have to focus on root causes, not punishment after the fact,”* *“surveillance and punishment [are] not a permanent solution,”* *“there’s gotta be a better way than penalizing folks financially,”* and *“SDOT doesn’t give enough thought about how to slow vehicles down.”* As one town hall attendee stated, *“The goal is to get people to go slower. Cameras can only be so effective. Street redesign is more important.”* Online survey participants also highlighted the dire need for safer street infrastructure in Seattle’s South End: *“We need safer streets all over Seattle but especially in South Seattle where traffic related deaths are highest. But not [with] traffic cameras, that would further punish those communities for poor design. We need to spend our money on better design and pedestrianization of our streets.”* Another wrote: *“Ultimately, we should not have a fine/penalty based system, and the path toward that future is street redesign.”* With this community feedback in mind, we ask the City of Seattle to craft effective policy that will prevent the use of AE ticketing as a first-resort safety intervention before alternative options have been tried.

We recommend that the City of Seattle:

- K. Develop, test, and evaluate an innovative “menu” of rapidly-deployable, inexpensive spot physical traffic calming options (e.g., rapid-build lane reduction treatments, lane narrowing, speed cushions, etc.) that can offer equivalent or superior safety benefits to a single AE speed camera
- L. Strengthen SDOT’s stated commitment that “speed zone cameras are a tool [to] turn to after other engineering interventions have not resulted in slower speeds”²⁷ by creating policy to guarantee that location-specific spot traffic calming measures (see above) are actually deployed and tested for efficacy prior to any new AE speed camera placement
- M. Set a removal timeline (e.g., 4 years) for every new AE speed camera placement, with continued use of the camera past the sunset date conditional on (1) construction of new physical traffic calming improvements at the camera location, and (2) a demonstrated lack of efficacy of those improvements in reducing speeding

Recommendation #4: Address surveillance concerns by documenting, publicizing, and strengthening protections around the use of images and data collected by AE cameras

In our town hall, some participants expressed that AE cameras were undesirable or unacceptable due to their nature as a surveillance technology. For BIPOC communities in particular, state-sanctioned surveillance can evoke visceral fears associated with past abuses, loss of privacy, and over-policing. These fears are compounded by the knowledge that AE cameras have been disproportionately placed within communities of color in Seattle. For example, individuals shared that *“cameras represent a breach in trust between community and government”* and that *“we don’t want surveillance, an oppressive presence.”* Most fears centered around the uncomfortable perception of being surveilled: *“Surveillance may be based on perception and not necessarily fact, but it ties into gentrification and the feeling of being watched in your own community.”* *“Surveillance has a psychological effect on the people*

²⁷ Seattle Department of Transportation (SDOT), “2021 school speed zone camera annual report” (November 2022), http://clerk.seattle.gov/~CFS/CF_322496.pdf.

being surveilled – it’s not just how the images get used.” When specific concerns were raised, they tended to involve a lack of transparency over data privacy protections and questions about what entities and individuals have access to data collected by AE cameras: ***“Surveillance is scary, especially not knowing who has access to the images.” “People don’t know or trust everything the government is doing.”***

These concerns remain despite a Washington state law that prohibits the use of AE cameras for purposes other than traffic enforcement. The efficacy of this present prohibition was tested in 2022 when Seattle police were unable to use images from a nearby AE camera to identify a driver who was the likely perpetrator of a hit-and-run collision that killed a bicyclist near the West Seattle Bridge²⁸. That said, this strong protection is not guaranteed in the future. A proposed state bill to allow police to use AE camera images for any purpose with a court warrant (Senate Bill 5722) failed to pass during the 2023 legislative session²⁹, but nonetheless validated community concerns that use Seattle’s AE camera network may eventually be expanded to include police investigative purposes. One town hall attendee shared their fear, for example, that AE cameras ***“could find evidence of some other event, or lead to misidentification.”*** It is unclear whether a Seattle city ordinance could prevent the use of AE cameras from being expanded if legislation similar to SB 5722 passes at the state level in the future.

At present, city policy excludes AE cameras from being formally classified as a surveillance technology due to their use “solely to record traffic violations”³⁰. This has meant that AE programs have not been required to undergo the city’s Surveillance Ordinance review, a rigorous process that involves research, documentation, and community engagement around data privacy and access. These city reviews result in the issuance of a formal Surveillance Impact Report containing a “civil liberties and privacy assessment.” In the absence of such a review, it appears that the City of Seattle has not publicly released any detailed information around data privacy and access protections for its AE programs^{31,32}.

We recommend that the City of Seattle:

- N.** Respond to community concerns and uncertainties around the privacy of images and data collected by AE cameras by either (1) formally re-classifying AE cameras as a surveillance technology and facilitating their review through the city’s established Surveillance Ordinance process, or (2) documenting and releasing detailed information about AE camera data privacy and access independent of the city’s Surveillance Ordinance review process

²⁸ David Kroman, “Charges filed in hit-and-run death of bicyclist near West Seattle,” *Seattle Times* (January 4, 2023), <https://www.seattletimes.com/seattle-news/law-justice/charges-filed-in-hit-and-run-death-of-bicyclist-near-west-seattle/>

²⁹ Washington State Legislature, “SB 5722 - 2023-24: Concerning photographs, microphotographs, and electronic images from traffic safety cameras and toll systems” (accessed May 2023), <https://app.leg.wa.gov/bills/summary?BillNumber=5722&Initiative=false&Year=2023>.

³⁰ City of Seattle, “Revised master list of surveillance technologies” (December 2019), <https://www.seattle.gov/documents/Departments/Tech/Privacy/12-2019%20Revised%20Master%20List%20of%20Surveillance%20Technologies.pdf>.

³¹ Seattle Police Department, “Automated photo enforcement program - school zone speed cameras” (see above).

³² Seattle Police Department, “Automated photo enforcement program - red light cameras” (accessed May 2023), <https://www.seattle.gov/police/community-policing/community-programs/red-light-cameras>.

- O. Clarify to community members what would occur in Seattle if state legislation similar to SB 5722³³ authorized the use of AE cameras for law enforcement purposes unrelated to traffic enforcement, and explore the feasibility of a city “trigger” ordinance that would locally halt any state-authorized expansion of AE data access pending a review of AE under the city’s Surveillance Ordinance

Community perspectives

In our outreach and survey efforts to date, we have observed broad, cross-demographic support for three broad areas of improvement to Seattle’s AE program, though opinions differ on specific policy options:

1. Reducing disproportionate financial impacts to low-income residents from AE ticketing (see Recommendation #1 above)
2. Prioritizing safe street design – particularly traffic calming – over enforcement measures (see Recommendation #3 above)
3. Ensuring that all revenue is directed towards funding safer street infrastructure (including from red light cameras, which currently contribute to the City of Seattle’s general fund)

Divergent views, however, exist in community attitudes towards the proposed expansion of AE cameras in Seattle, strategies for placement of cameras, and the validity of AE ticketing itself as a solution for traffic safety.

In our community town hall and online survey, we observe that BIPOC and lower-income individuals – the focus audience for our outreach efforts – tend to favor: (1) a cessation of AE camera expansion or a removal of cameras, particularly on roadways within communities of color; (2) a distribution of cameras that yields uniform ticketing across geography and/or demographics; and (3) the use of AE as a strategy of last resort, rather than an integral traffic safety measure.

In contrast, respondents to our online survey who indicated that they are white and/or able to afford to pay a \$237 automated speeding ticket have shared strong support for: (1) an expansion of AE cameras citywide; (2) placement of cameras based on speeding or collision data, even if it results in disproportionate ticketing within communities of color; and (3) the use of AE as an integral traffic safety measure, albeit paired with safer street infrastructure.

That said, we want to acknowledge that no community is a monolith and all communities likely hold a diversity of views regarding AE policies³⁴. Additional outreach towards BIPOC and low-income residents is needed as the City of Seattle charts a path forward for its automated traffic enforcement program that upholds its stated commitment to both design a transportation system that is “safe regardless of one’s age, ability, location, income, language, race and/or how [one] choose[s] to get

³³ Washington State Legislature, “SB 5722 - 2023-24” (see above).

³⁴ We are not aware of any citywide surveys that have rigorously measured sentiments related to AE across a representative sample of Seattle residents, with the exception of a public attitudes survey conducted in 2010 around the deployment of a single pilot AE speed camera (which did not release cross-tabulations by demographic categories): Washington Traffic Safety Commission (WTSC), “Automated speed enforcement pilot project evaluation” (January 2011), http://wtsc.wa.gov/wp-content/uploads/dlm_uploads/2015/03/Automated-Speed-Enforcement-Pilot_2011.pdf.

around” while “creat[ing] a new system of community safety that is not penal in nature... rather than criminalizing or perpetuating cycles of racial inequities experienced by BIPOC populations”³⁵.

Our community engagement to date

On March 14, 2023, WSOS hosted an evening community town hall on automated traffic camera enforcement at Rainier Arts Center in the Columbia City neighborhood of Seattle. The event was advertised in our *South Seattle Emerald* op-ed, through WSOS social media accounts (Instagram and Facebook), and using door hang tags and flyers distributed throughout the neighborhood surrounding Rainier Arts Center. Approximately 55 attendees participated in a program that included a brief presentation on AE policies in Seattle, highlighting preliminary findings from SDOT’s Racial Equity Toolkit analysis of AE. This was followed by one hour of small group discussions at six tables, moderated by WSOS members. Notes were collected and transcribed, including by SDOT staff in attendance. Free dinner and childcare were provided at the event. Key group discussion topics were:

1. *Is traffic camera enforcement the right approach to creating traffic safety?*
2. *How should the city set ticket fines and alternatives? Should first-time violations receive warnings? Where should the ticket revenue go?*
3. *Should the city expand its traffic camera program? If so, where should additional cameras be placed?*
4. *What surveillance concerns do these cameras raise, and how should they be addressed?*
5. *What type of community engagement do you expect from SDOT on this issue and others?*

Additionally, a short anonymous paper survey was distributed at the community town hall event on March 14, 2023. We received 17 responses, of which 82% of survey respondents identified as people of color (i.e., within non-white or multiple racial or ethnic groups) and 75% of survey respondents selected a household income bracket under Seattle’s approximate median household income of \$100,000. The plurality of respondents reported living in South Seattle zip codes. Together, these indicate that our town hall reached its intended audience of BIPOC and lower-income community members primarily from South Seattle.

Lastly, we conducted an online [Google Form survey](#), which was publicized on WSOS social media accounts in conjunction with our AE blog post, then again in our *South Seattle Emerald* op-ed. We have received 119 survey responses from October 2022 to present, 40 of which are from respondents belonging to one or both of two groups: (1) respondents who reported they could not afford to pay a \$237 automated speeding ticket, and (2) people of color. Due to our group’s focus on BIPOC residents of Seattle and those most impacted by enforcement, we have centered our analysis efforts on this subset of respondents.

While we reference preliminary qualitative conclusions from both surveys in this report, we have opted to release quantitative analyses at a later date after conducting further community outreach and assessment.

³⁵ Seattle Department of Transportation (SDOT), “Transportation Equity Framework – Part I: Values & strategies” (April 2022), pp. 18 and 23, https://www.seattle.gov/documents/Departments/SDOT/TransportationEquity/TransportationEquity_Framework_Report_41422.pdf.



Seattle Pedestrian & Bicycle Advisory Boards

May 1, 2023

The Seattle Pedestrian Advisory Board shall advise the City Council, the Mayor and all the offices of the city on matters related to pedestrians and the impacts which actions by the city may have upon the pedestrian environment; and shall have the opportunity to contribute to all aspects of the city's planning insofar as they relate to the pedestrian safety and access.

*-City Council Resolution
28791*

Seattle Pedestrian Advisory Board Members:

- Maria Sumner, Co-Chair
- Christ Grgich, Co-Chair
- Emily Davis
- Rohit Ammanamanchi
- Fallon Boyle
- Erin Fitzpatrick
- David Frantz
- Holt Hafer, Get Engaged
- Wes Mills
- Chelsea Morrison
- Natasha Riveron
- Emilie Szeto

The Seattle Bicycle Advisory Board shall advise the City Council, the Mayor, and all departments and officers of the city on matters related to bicycling, and the impact which actions by the city may have upon bicycling; and shall have the opportunity to contribute to all aspects of the city's planning process insofar as they relate to bicycling.

*-City Council Resolution
25534*

Seattle Bicycle Advisory Board Members:

- Donna McBain Evans, Co-Chair
- Peter Bryan, Co-Chair
- Joseph Roberts, Secretary
- Yasir Alfarag
- Arya Blourchian
- Ty Bottorff
- Max Green
- Quinn Kelly
- Double Migned
- Jose Nino
- Christine Stawitz

To: Mayor Bruce Harrell, Seattle City Council, Gregg Spotts, Director SDOT, Francesca Stefan, Deputy Director SDOT, Venu Nemani, City Traffic Engineer, now SDOT chief Safety Officer

From: Seattle Bicycle Advisory Board and Seattle Pedestrian Advisory Board

Re: Comments on Vision Zero Top to Bottom Review

We applaud the effort of Director Spotts to initiate a top to bottom review of the city's Vision Zero plan to help us reverse the trend of increasing numbers of deaths and serious injuries on our streets. The Bicycle and Pedestrian modal boards have joined together to submit to you the following comments and feedback on your review and our assessment of key actions needed to make meaningful headway toward the goal of no traffic deaths.

We see 4 key issues that need to be addressed if we are to see measurable results: Arterial safety, Intersection safety, Safer street designs and Reduction in vehicular speeds.

Issue 1: Arterials: 93% of pedestrian fatalities occur on multilane arterials

- Prioritize bold safety redesigns on arterial routes in the city, particularly MLK Way, Aurora Ave, Lake City Way and Rainier Ave; while your "momentum building actions are welcome, they do not address the fundamental changes needed to create safer arterials. That is a redesign of arterials to prioritize safety and create pedestrian spaces (e.g. speed cushions, sidewalks, flashing beacons and protected bike lanes).
- We challenge you to build a model safe arterial on a significant stretch of dangerous road to the highest standards so the impacts of safety treatments can be evaluated; this project should be highlighted in the new STP and funded expediently.

- Your review has a grand vision but it kicks the can down the road for implementation. Inclusion of Safety elements should be in **ALL** SDOT projects and should start today: reevaluate projects in the construction pipeline, such as the Ballard Ave/15th repaving project, where safety has not been made a priority; if there is a funding shortfall, the project scope should be reduced to ensure that safety treatments are included.
- A safety overlay should be used to identify problem areas with all project plans; this overlay will show the history of serious injuries and deaths on a route by all modes of transit and should be used to provide appropriate prioritization for street treatments and slower speeds.
- In all projects, SDOT must track and evaluate that the intended safety improvements are being realized as evidenced by a reduction in crashes.

Issue 2: Intersections: 59% of all pedestrian fatalities occur at intersections

The SDOT review relies heavily on Leading Pedestrian Intervals (LPIs) to reduce incidents at intersections; while there is some evidence LPIs work, they are not a panacea and we believe you should go further:

- Raised crosswalks should be installed in all school zones, transit hubs and other areas with active pedestrian activity.
- Installation of curb bulbs and posts can improve visibility at crosswalks; flashing beacons and refuge islands improve safety for pedestrians at busy multi lane arterial crossings; these treatments can be added even in repaving projects.
- We commend your expansion of no-turn on red signalization; this should be combined with designated turn phases at signalized crossings—these protect people walking and people on bicycles in bike lanes.

Issue 3: Street design must be revamped to address safety concerns

- 80% of people killed while bicycling were on streets without bike lanes; installation of Protected Bike Lanes should be prioritized, using findings from SDOT's Bike and Pedestrian Safety analysis.
- Assure that the new STP creates a bold vision of interconnected bikeways for all ages and abilities; these projects should not be canceled or delayed by concerns such as loss of parking or increases in travel times for vehicles; all users should feel safe and be safe on our roads.
- Although the City's climate plan contains a goal of drastically reducing Vehicle Miles Traveled in single occupancy vehicles, this goal is not stated in the Vision Zero document; yet reduced VMT would greatly reduce traffic deaths and injuries; this should be included in the Vision Zero goals.
- There should be a simple system designed for people to report safety concerns, near-misses, and non-police related incidents and crashes, such as the Find It Fix It app.

Issue 4: Speeding

- Enforcement of speed limits is virtually nonexistent in our City; expanded automated enforcement cameras have had tangible impact on fatalities in other cities; SDOT must expand use of enforcement cameras and make them more equitable by setting ticket fines based on income and

issuing warnings instead of tickets for first time violations; distribute the cameras equitably around the city and direct new revenue from cameras towards safety programs.

- SDOT's own data confirms that reducing vehicles speeds lead to fewer crashes and safer streets; we urge you to embrace lower speeds and use street design to slow vehicles on dangerous roads as a core element of your programs.
- Make broader use of speed cushions to reduce travel speeds on busy arterials as these devices can reduce general vehicle speeds while still allowing emergency vehicles to move efficiently.

These four issues are fundamental to solving safety issues on our roads. However, funding and political will is what will determine if we have a plan with solutions or merely something to put on a shelf.

We commend the inclusion of critical safety improvements in the near term plan, but we cannot achieve vision zero until we radically change how cars move throughout the city. Dramatically rethinking street designs and vehicle speeds needs to be at the core of the near term Vision Zero plan and we cannot wait.



City of Seattle

Seattle
Freight
Advisory
Board

To: Greg Spotts, Director Seattle Department of Transportation
Seattle Municipal Tower
700 5th Ave, Ste 3800
Seattle, WA 98104

May 24th 2023

Dan Kelly (Chair)
Stanley Ryter (Co-Chair)
Geri Poor
Kristal Fiser
Dan McKisson
Nigel Baron
Howard Agnew
Eric Wright
Dan Gatchet
Al Muehlenbruch

Re: Seattle Freight Advisory Board Comments on Vision Zero, Top-to-Bottom Review

Dear Director Spotts:

Thank you for your presentation to us at the March 2023 meeting of the Freight Advisory Board. We are responding to your briefing on the findings of the *Vision Zero, Top to Bottom Review* report.

We recommit our energy to work to ensure safety of every person who works or travels through the city's Manufacturing & Industrial Centers (MICs), and on the Major Truck Streets connecting the MICs to each other and to the regional highways. We must work together to increase awareness and promote safe practices among all road users. In that light, we offer these specific principles for planning work with city staff and others sharing the roads:

- **Provide safety education to all roadway users sharing the road with large trucks.** Safety is a shared responsibility for all users of the transportation system. Truck and transit drivers stand out due to their vehicle size, yet they must contend with large blind spots and long stopping distances that make it physically impossible to take responsibility for all users in all situations. Safety education is already a requirement for getting a commercial driver's license, and it should be for all users.
- **Engage members of the Freight Advisory Board (FAB), and people who work in the MICs, to take advantage of their knowledge to ensure safety for all, especially where different modes are in the same space.** The FAB has had focused discussions of safety where modes, specifically large trucks, must work in and around vulnerable road users. The FAB has strongly supported projects like East Marginal Way that safely separate modes without impacting the work in the MICs.

Those who work and drive vehicles in the MIC know the operating characteristics of trucks and understand the challenges faced by truck drivers. This sector of the city's economy relies on the roadway system for its very function. Everyone wants safety, predictability, and resiliency. "After action studies" should be conducted where crashes occur to inform design. FHWA's guidance for context sensitive design is clear in noting that public outreach must equally account for all stakeholders, including freight and business. As a significant concern for the city, funding for separated bike or shared use paths must be prioritized.

The Seattle Freight Advisory Board shall advise the City Council, the Mayor, and all departments and offices of the City in development of a functional and efficient freight system and on all matters related to freight and the impact that actions by the City may have upon the freight environment.

City Council Resolution
31243

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- **Ensure that major arterials and truck streets, especially--but not only--in the MICs, can safely carry the freight and goods of the city.** They must not be constrained by doing too much--and doing that poorly. As noted in the City’s Complete Streets Ordinance 122386, “Because freight is important to the basic economy of the city and has unique right-of-way needs to support that role, freight will be the major priority on streets classified as Major Truck Streets. Complete Street improvements that are consistent with freight mobility but also support other modes may be considered on these streets.” As an early adopter of “complete streets” ordinances the city of Seattle recognized that Truck Streets especially within the industrial areas were unique and the movement of freight which is intrinsic to our regional economy and the livelihoods of workers who rely on those jobs.
- **Account for the fact that trucks have different operating characteristics than smaller vehicles** (visibility/blind spots, stopping distances, acceleration). Trucks accessing businesses need to make sweeping turns at driveways and intersections. Vision Zero solutions for Seattle’s Truck Street system must account for this reality by adjusting the Complete Streets check list to include a thorough analysis of truck size, volume, and the percentage of trucks in the traffic mix.
- **Recognize that Manufacturing Industrial Centers (MICs) are unique compared to downtown and urban villages:** Safe solutions for the truck street system in the MICs must be designed specifically for this land use context. Freight activity peaks at different hours from regular commute times. Street trees should be columnar species, as opposed to branching trees, due to sight distance limitations and inclusion of over-legal routes. Sight lines are also impacted by many buildings’ zero-lot-lines. And roadway conditions contribute to safety – many roads in the MICs need repaving, sidewalks and stormwater improvements. It is critical to design for the unique industrial land use context. The mayor has recently sent the Industrial Lands Strategy to the City Council, with stronger protections for industrial land uses in the MICs. Industrial freight capacity must be preserved and maintained alongside, by wisely applying Vision Zero improvements. Where significant investments have been made in the heavy haul network it should be prioritized to serve these heavy vehicles.

Looking to the future, as Sound Transit develops the West Seattle and Ballard Link extensions through the Duwamish and Ballard Interbay MICs, large buses will join trucks on the main arterials, some of which were previously on the SODO busway. This adds to the need to maintain capacity, investment in structural integrity, protect arterials that function for large vehicles, and separate modal uses to reduce conflict points.

Please reference also two technical papers recently completed regarding Vision Zero. They highlight other important issues that contribute technical input to the safety conversation.

- SDOT Vision Zero Recommended Safety Analysis.pdf, Hirschey, 4/28/23
- NWSA Safety First.docx (work in progress), 3/7/23

Thank you for your commitment to saving lives through strengthening Vision Zero appropriately throughout the city. We want to work together to prevent serious injuries and tragic deaths. We must follow the federal government leadership in the National Roadway Safety Strategy and the recently awarded Safe Streets and Roads for All grants to make appropriate improvements.

Sincerely,



Dan Kelly
Seattle Freight Advisory Board Chair



Transportation Equity Workgroup
Seattle Department of Transportation

June 2, 2023

To: Mayor Bruce Harrell, Seattle City Council, Gregg Spotts, Director SDOT, Francesca Stefan, Deputy Director SDOT, Venu Nemani, SDOT Chief Safety Officer

From: SDOT Transportation Equity Workgroup

RE: Recommendations on Vision Zero Top to Bottom Review

We, the SDOT Transportation Equity Workgroup (TEW), have thoroughly reviewed the SDOT Vision Zero Top to Bottom Review report and have had meaningful, continued engagement to consider its contents. Specifically, we opted to focus on the important issue of Auto Enforcement and its well-established equity impacts.

We would like to see enforcement be less punitive and more equitable. Currently, 65% of cameras are in neighborhoods with more people of color and immigrants. Due to historic disinvestment, these are also the areas where Seattle's most dangerous roads tend to be and thus communities who are disproportionately impacted. We have concerns related to non-equitable impact that will result from an increase of auto enforcement measures to be done without a robust communication strategy that deeply engages our communities most impacted and takes into account non-punitive measures.

We want to firmly highlight that we too are concerned about recent fatalities and are aware that auto enforcement has been known to significantly increase safety. That said, we do have grave concerns related to lack of information, language access, and financial consequences that disproportionately impact our Black, Indigenous and communities of color (BIPOC) including our low income, vulnerable and immigrant and refugee communities.

Seattle Department of Transportation Equity Workgroup (TEW).
Email: transportationequity@seattle.gov Call: 206-684-5142.
Website:

- [About The TEW Workgroup](#)
- [Transportation Equity Framework Dashboard](#)



Transportation Equity Workgroup
Seattle Department of Transportation

To address all such issues we offer our feedback and recommendations that center on the following four topic areas:

1. **Education & Communication**
2. **Non-punitive Measures**
3. **Equitable Distribution of Cameras**
4. **Equitable distribution of revenue generated**

Education & Communication

First, we strongly recommend that community engagement take place in advance of the roll out of more auto enforcement cameras. Our communities need to be fully informed that auto enforcement will be increased and need to have an understanding of the reasons for this safety measure strategy. Additionally, the community should be allowed to provide feedback as to signage recommendations that would be more helpful in informing the public at large.

We suggest that the educational outreach take place at various community gathering spaces. These gatherings should be aimed for a multigenerational audience, and there needs to be intention to make the engagement opportunities fully accessible to our vulnerable communities while also accounting for language access needs across communities.

Non-punitive Measures

Given the data showing that most people change their driving behavior after getting a warning, the TEW also recommends that there needs to be a process in which a first time offense results in a warning.

Additionally, other non-punitive alternative solutions need to be made available so that the fines do not impose undue economic hardship for low-income households. Some examples include community service and/or educational opportunities.

The TEW also would like to see fine amounts be reduced for low-income households if tickets are subsequently issued, as the impact on low-income households can potentially impact their housing stability and the ability to meet their basic needs.

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Transportation Equity Workgroup
Seattle Department of Transportation

Equitable Distribution of Cameras

We'd also like to see a more equitable distribution of cameras in all neighborhoods. The data currently shows that only 18% of cameras are placed in neighborhoods with fewer people of color and immigrants. With safety as the ultimate goal, that needs to change.

Revenue Allocation that prioritizes Safety Measures

Lastly we strongly recommend a measure in which the revenue that is generated from automated enforcement gets invested in the neighborhoods from which that revenue is generated. With the ultimate goal being safety, the priority needs to be an allocation of those funds generated to directly support such efforts in the specified neighborhoods. We strongly discourage the City from perpetuating further processes in which the City puts itself in the position in which it creates a greater dependency of revenue generated from punitive measures, in the guise of advancing safety measures, that are well known to disproportionately impact our BIPOC, low-income, vulnerable, immigrant and refugee communities.

In short, we would like to see a thorough and careful consideration of the Transportation Justice implications of any changes in the auto enforcement measures, as outlined in the aforementioned recommendations as you work towards further implementation of the Vision Zero policy.

Sincerely,

Yordanos Teferi

Mr. Rizwan Rizwi

Co-Chairwoman

Co-Chairman

SDOT Transportation Equity Workgroup (TEW)

Seattle Department of Transportation Equity Workgroup (TEW).

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