CITY OF KIRKLAND
PUBLIC WORKS
123 Fifth Avenue, Kirkland, WA 98033
425-587-3000

MEMORANDUM

To: Kurt Triplett, City Manager

From: Truc Dever, Director of Public Works
Sarah R Olson, Public Works Deputy Director - Engineering & Planning
Jennifer Palmer, PE, Transportation Engineering Supervisor
Victoria Kovacs, AICP, Transportation Planner

Date: June 17, 2025

Subject: **Kirkland Safety Action Plan and Speed Limit Setting Policy Update**

RECOMMENDATION:

Staff recommends that City Council receives a presentation on the Kirkland Safety Action Plan (KSAP) and speed limit setting policy to provide initial feedback and discussion.

EXECUTIVE SUMMARY:

- Staff recommends that Council reviews an update on the pending Kirkland Safety Action Plan (KSAP) and speed limit setting policy to provide initial feedback and discussion. No action is needed. Staff seeks Council's initial feedback at this time.
- The City Council adopted a Vision Zero goal in 2015, subsequently reaffirmed with adoption of the 2024 Transportation Strategic Plan as Goal T-1: Eliminate all transportation-related fatal and serious injury crashes, while reducing all crashes in Kirkland by 2035.
- The City Council adopted a Vision Zero Action Plan in 2022, which includes objectives and strategies to realize the Vision Zero goal.
- Through a coordinated grant application with the Puget Sound Regional Council (PSRC) in 2023, Kirkland was awarded federal funds through the Safe Streets and Roads for All (SS4A) grant program to develop a safety action plan.
- Completion of the KSAP will realize several action items identified in the Vision Zero Action Plan and will enable the City to qualify for implementation grants through the federal SS4A program in the future.
- The outcomes of the KSAP include:
    - Identification of collector and arterial street segments and intersections with high priority safety needs;
    - Development of a new speed limit setting policy; and

    - Development of a toolbox of engineering strategies to address identified safety needs.
- Once a recommendation is received from the Transportation Commission, staff will return to a future Council meeting for further discussion and adoption of the KSAP.

BACKGROUND:

The City of Kirkland first adopted Vision Zero as part of the 2015 Transportation Master Plan. This goal was reaffirmed with adoption of the 2024 Transportation Strategic Plan:

> ***Goal T-1: Eliminate all transportation-related fatal and serious injury crashes, while reducing all crashes in Kirkland by 2035.***

The City's first Vision Zero Action Plan[1] (VZAP) was adopted in June 2022. That document evaluates crash data to identify areas with crash patterns and indicators and outlines key objectives, strategies, and actions for a systems-based approach to achieve Vision Zero. Implementation of the plan relies upon the Safe System Approach[2] – a paradigm shift to improve safety culture, increase collaboration across all safety stakeholders, and refocus transportation system design and operation on anticipating human mistakes and lessening impact forces to reduce crash severity and save lives.

In 2023, through a coordinated grant application with the Puget Sound Regional Council (PSRC), the City of Kirkland applied for supplemental planning grant funding to pursue the development of a comprehensive safety action plan, now known as the Kirkland Safety Action Plan. In December 2023, the U.S. Department of Transportation (USDOT) announced that PSRC received $2.87 million through the USDOT's Safe Streets and Roads for All (SS4A) Grant Program.[3] This federal grant supports the development of local safety plans for ten local agencies, including Kirkland. In 2024, the City conducted a competitive, qualifications-based, procurement process and selected DKS Associates as the consultant to assist the City in developing the KSAP.

Comprehensive safety action plans are the basic building block to improve roadway safety. These plans focus on reducing and eliminating fatal and serious injury crashes affecting all roadway users by using data analysis to characterize roadway safety problems and identify countermeasures and strategies that address the most significant safety risks.

The KSAP advances the City's Vision Zero Goal to eliminate fatal and serious-injury crashes affecting roadways users, including people who walk, bicycle, take transit, or drive. The KSAP specifically advances objectives and strategies identified in the VZAP, including a focused evaluation of high crash corridors and intersections (*VZAP Objective 1, Strategy 1a*), a near-miss analysis (*VZAP Objective 3, Strategy 3e*), and updating Kirkland's speed limit setting methodology (*VZAP Objective 2, Strategy 2a*). These are discussed in more detail in the "Discussion/Analysis" section.

[1] https://www.kirklandwa.gov/files/sharedassets/public/v/2/public-works/transportation/plans-and-studies/vision-zero-action-plan/final_vzap_2022-ver4.pdf
[2] https://highways.dot.gov/safety/zero-deaths
[3] https://www.transportation.gov/grants/SS4A

In summary, the KSAP uses a data-driven and community-informed approach to:

- Identify collector and arterial street segments and intersections with high priority safety needs; and
- Develop a new speed limit setting policy; and
- Create a toolbox of engineering strategies that prioritizes the safety of all roadway users.

DISCUSSION/ANALYSIS:

The scope of work for the KSAP includes several work items such as citywide crash data analysis, focused segment and intersection crash analysis, intersection near-miss analysis, community engagement, speed data collection, and a speed limit setting policy update with evaluation tool. Staff has provided a brief introduction and high-level discussion of each below.

Citywide Crash Data Analysis

The consultant team at DKS Associates is developing a technical memo to summarize the various crash data analyses, including citywide trends, a specific focus on 2019-2023, and a segment- and intersection-specific analysis on select arterial and collector corridors. Preliminary findings are included below.

Between 2019 and 2023, there were 2,911 reported crashes in Kirkland. Reviewing the trend over the past ten years, crashes have decreased by 40% since 2014, dropping from 1,032 that year to 609 crashes in 2023, as shown in **Figure 1**.

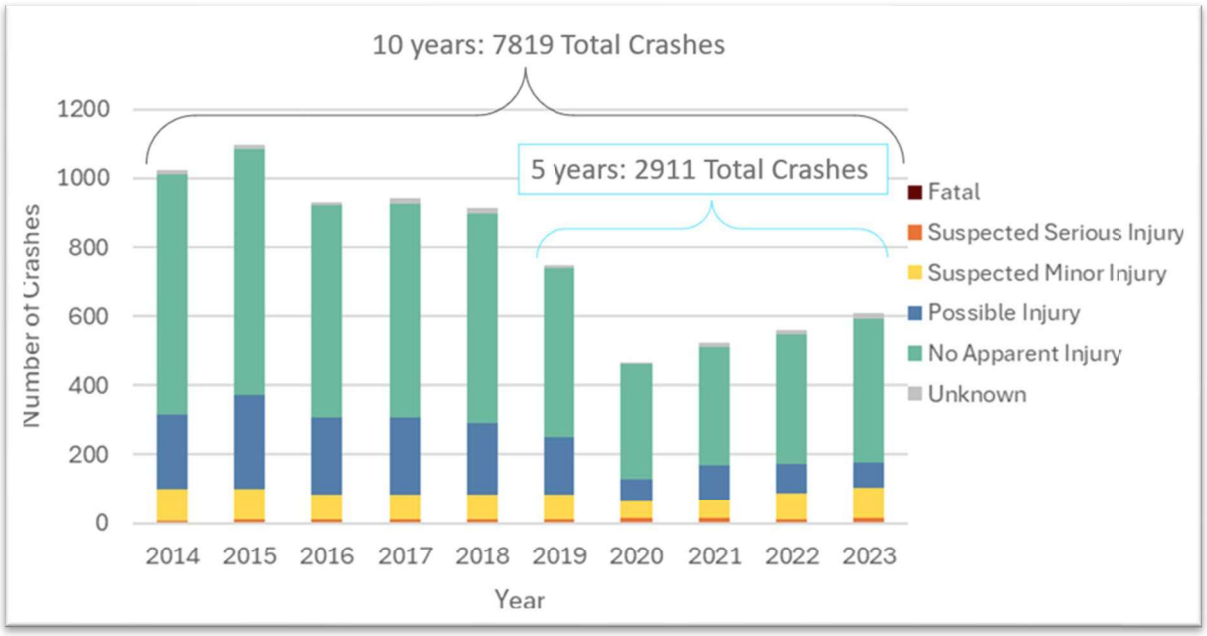

Figure 1. Citywide 10-year crash data.

Compared to other jurisdictions in the region, the per capita crash rate in Kirkland is below the County and Statewide rates, shown below in **Table 1**. Population estimates shown are sourced from the Washington State Office of Financial Management (OFM).

JURISDICTION	TOTAL NUMBER OF CRASHES 2019 - 2023	AVERAGE NUMBER OF CRASHES PER YEAR (2019-2023)	POPULATION ESTIMATE (WA OFM 2023 ESTIMATE)	ANNUAL CRASH RATE PER 10K POP
Kirkland	2,911	582	96,920	60
Bellevue	5,155	1,031	154,600	67
Redmond	2,129	426	77,490	55
King County	78,865	15,773	2,347,800	67
Washington State	275,013	55,003	7,951,150	69

Table 1. Annual average number of crashes (2019-2023) normalized by the population of Kirkland and neighboring agencies.

A closer look at Kirkland's recent crash data reveals several key trends:

- Over the past 10 years, there have consistently been 1 to 2 fatal crashes per year. Crashes resulting in serious injuries have increased, while less severe crashes (possible injury, no apparent injury) have decreased.
- The overall number of crashes decreased in 2020 in line with reduced traffic volumes related to the COVID-19 pandemic. Since then, traffic volumes and the number of crashes have steadily increased.
- 52% of all collisions and 54% of fatal and serious injury collisions occurred at intersections (signalized and non-signalized), making intersections the most common type of location for collisions to occur.
- While vulnerable road users, namely people walking, rolling, and bicycling, were involved in only 6% of all reported collisions, they were involved in 46% of fatal or serious injury collisions.
- The most common crash type was rear-end crashes, constituting 21% of all collisions and 12% of fatal and serious injury collisions.
- Young drivers (age 16 to 25) were involved in 32% of all collisions and 18% of fatal or serious injury collisions.
- Older drivers (age 65+) were involved in 11% of all crashes and 17% of fatal or serious injury crashes
- Motorcyclists were involved in only 2% of all reported collisions, but 11% of fatal or serious injury collisions.
- Lane departure was involved in crashes that made up 17% of all collisions and 22% of fatal or serious injury collisions.
- Overall, for all crash severities, 33% of all crashes occurred between 3 p.m. and 6 p.m., aligning with the typical p.m. peak period. Fatal and serious injury crashes occurred at all times of the day with no clear pattern.
- Distracted driving was involved in 27% of all crashes and 25% of fatal or serious injury crashes.

Between 2019 and 2023, out of all 2,911 crashes reported in Kirkland,186 involved pedestrian and bicyclists, representing about 6% of reported crashes. The annual trend of all pedestrian and bicycle involved crashes is shown in **Figure 2**.

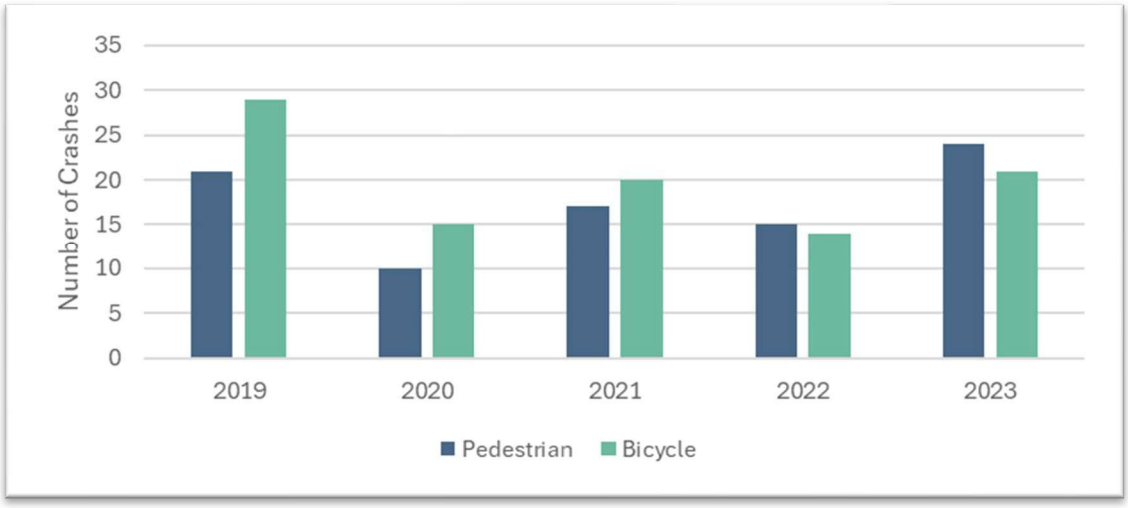

Figure 2. Citywide pedestrian- and bicycle-involved crashes (2019-2023).

The consultant is preparing crash rates per roadway segment and will highlight segments with higher-than-average crash rates. This will help focus the City's efforts on where the most help is needed to make Kirkland streets safer. The roadway segment crash rates will also be one piece of information used as an input in the speed limit setting methodology, as discussed below. Another key outcome of the crash analysis is the development of a suite of engineering safety countermeasures that can be implemented by staff in the future.

Intersection Near-Miss Analysis

In addition to reviewing reported crash data, a near-miss analysis was conducted at six intersections throughout the City. For the purposes of the KSAP, the terms "near-miss" and "close-call" are used interchangeably to mean when the paths of two roadway users (i.e., vehicles, pedestrians, bicycles, etc.) are observed to pass within approximately 5 seconds of each other. The study intersections were selected through a combination of factors, including the highest historical intersection crash rates, locations with frequent complaints of near misses or close calls from community members, and proximity to pedestrian-generating land uses such as parks and schools. Intersections within active work zones at the time of the study (e.g., the 100th Ave NE and 124th Ave NE project limits) were excluded. The six intersections included in the near-miss study were:

- 100th Ave NE and NE 132nd Street
- NE 128th and Totem Lake Blvd
- Juanita Drive and 98th Ave NE
- NE 80th Street and 120th Ave NE
- 132nd Ave NE and NE 132nd Street
- NE 70th Street and 132nd Ave NE

This analysis illuminated conflicting roadway user movements through video analytics. The video vendor provided preliminary countermeasures, which will be evaluated for appropriateness in Kirkland through the course of the KSAP technical documents review. The

intended outcome of the near-miss analysis is to provide a toolbox of engineering safety countermeasures to prevent crashes before they occur based on observations.

Sample images for the near-miss analysis are shown in **Figure 3** and **Figure 4**.

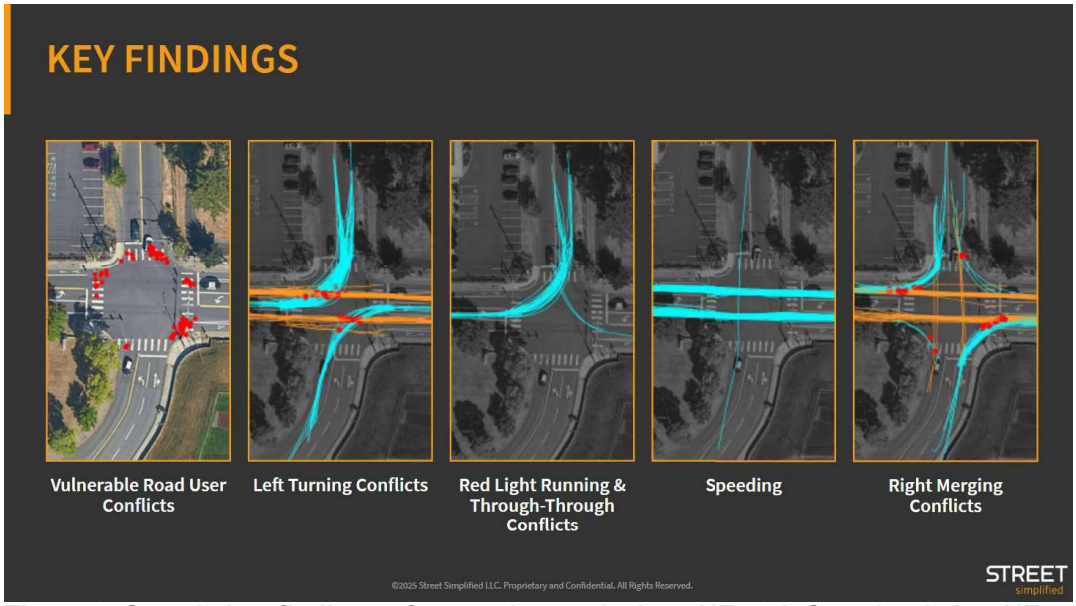

Figure 3. Sample key findings of near-miss analysis at NE 80th St at 120th Ave NE.

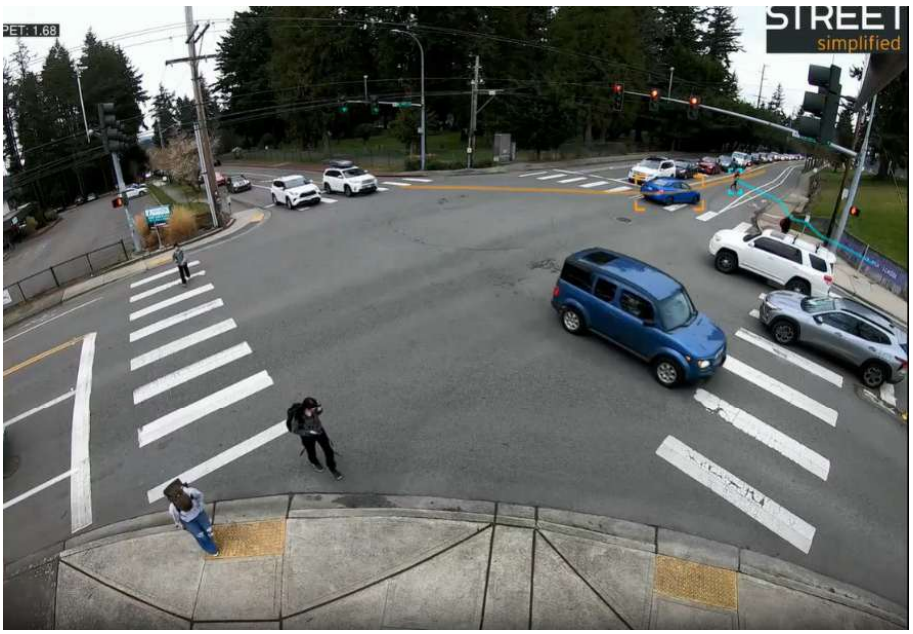

Figure 4. Sample image of the video analytics used in the near-miss analysis.

Speed Limit Policy Update

A key policy update being developed as part of the KSAP is a revision of Kirkland's speed limit setting methodology and procedure. The current methodology for setting speed limits in Kirkland

is based on the 85th percentile method (Public Works Pre-Approved Plans Policy R-17[4], 2009). The 85th percentile vehicle operating speed is defined as the speed at which 85 percent of vehicles are traveling at or below. The 85th percentile speed limit setting methodology assumes that if most drivers are traveling at that speed, then it should be considered safe and reasonable. Kirkland staff evaluated several methodologies that take into account safety first and foremost, and incorporated roadway context such as adjacent land use, pedestrian, and bicyclist activity and more, in addition to vehicle operating speeds. The KSAP consultant team and City staff selected the *National Cooperative Highway Research Program (NCHRP) Research Report 966 Posted Speed Limit Setting Procedure and Tool*[5] as a basis for Kirkland's new speed limit setting policy.

In addition to the speed limit policy update, the consultant team is developing a tool that can be used by current and future staff to evaluate speed limits. The goal is to gain a robust, usable tool based on objective data and research using the fundamentals of the NCHRP 966 report. The tool is anticipated to have several inputs for each specific roadway segment such as crash rates, adjacent land use context, driveway spacing, traffic signal spacing, the presence of on-street parking, pedestrian and bicycle activity, vehicle operating speeds, and more.

Earlier this year, City staff and the consultant team together collected vehicle operating speed data for around 90 arterial and collector roadway segments. This data will help staff understand where speeding is occurring on arterial and collector roadways to help inform future potential projects.

The speed limit policy update is not intended to change all speed limits in Kirkland at once. Rather, it establishes a framework evaluating speed limits on a project-by-project basis, allowing staff to bring forward specific recommendations for Council approval.

The speed limit setting policy document and tool are still under development and are anticipated to become available in the coming months.

Community Engagement

To date, staff have met with or presented to the Transportation Commission on four occasions related to the KSAP. The Commission is generally supportive and has provided feedback and input throughout the project.

On May 14, 2025, staff invited community members to an in-person "Tea with Transportation" open house[6] to hear feedback on transportation safety elements and provide information about the KSAP. Feedback from this open house was generally positive and will be summarized in the KSAP.

One item debuted during the in-person open house was the City's new Fatal and Serious Injury (FSI) Traffic Collision Dashboard.[7] In an effort to be transparent and report crash data in a

[4] https://www.kirklandwa.gov/files/sharedassets/public/v/1/development-services/pdfs/pre-approved-plans/policy-r-17.pdf
[5] https://nap.nationalacademies.org/catalog/26216/posted-speed-limit-setting-procedure-and-tool-user-guide
[6] https://www.kirklandwa.gov/files/sharedassets/public/v/1/public-works/transportation/plans-and-studies/safety-action-plan/tea-with-transportation-2025-kirkland-safety-action-plan.pdf
[7] https://kirklandwa.maps.arcgis.com/apps/dashboards/ef7461a711a949c58fd7895a5aa7653d

visual way, the online dashboard provides community members with a way to access real-time crash data from law enforcement sources, in alignment with the City's Vision Zero Action Plan.

Additionally, the City hosted an online engagement map[8] for community members to drop a pin on a web-based map to highlight traffic safety concerns, speeding issues, or report close call events while walking, rolling, bicycling, or driving. In May, City staff received data for user-reported close call events collected by Eastside Urbanism and incorporated the Kirkland-based events into the KSAP public engagement map as well.[9] As of mid-June 2025, the map had nearly 1,000 comments and pins active on the website. The site was open for public feedback for approximately one month and closed June 18, 2025. The goal of the online engagement platform was to identify trends from community members to help identify priority areas where traffic safety issues persist. The feedback from the online engagement platform will be collated and summarized as a part of the KSAP.

NEXT STEPS:

The consultant team continues to develop the draft plan and a toolbox of engineering safety countermeasures that City staff can apply at high-priority locations.

City staff and the consultant team plan to bring a full draft version of the KSAP and speed limit policy update to the Transportation Commission at its July 23 meeting. The goal for that commission meeting is to receive a recommendation for Council to consider for adoption.

Following that Transportation Commission meeting, City staff will return with the draft KSAP for consideration and feedback from City Council in September 2025. Adoption is anticipated before the end of the year.

ATTACHMENTS:

None.

[8] https://dks-engage.com/KirklandSafety
[9] https://www.closecall.report/