



MEMORANDUM

To: Transportation Commission

From: Doug McIntyre, AICP, Transportation Manager
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Iris Cabrera, PE, Transportation Engineer

Date: March 22, 2024

Subject: CITYWIDE SPEED STUDY AND SPEED LIMIT POLICY UPDATE

Staff Recommendation:

It is recommended that Transportation Commission receive a presentation on the approach and next steps for the upcoming work related to the Citywide Speed Study and Speed Limit Policy Update and provide feedback.

Background:

The City of Kirkland's Transportation Division staff, in partnership with other City departments, seek to establish a revised speed limit policy that promotes safer vehicle operating speeds to work toward a reduction in the number of fatal and severe injury crashes in our city. This supports the City's Vision Zero¹ Goal, which states by 2035, we will eliminate all transportation-related fatal and serious injury crashes in Kirkland.

Crash data analysis within the City of Kirkland for the period of 2018-2022 shows that speeding is a contributing factor in 15% of fatal and severe injury crashes, and in 10% of all crashes. Additionally, the data shows that 70% of fatal and severe injury crashes occurred on streets posted at speed limit equal to or greater than 30 mph. Thus, speeding has significant safety impacts.

The City's existing speed limit policy, Policy R-17, was established in 2006 (Attachment A). Per this policy, posted speed limits in Kirkland are based on the measured 85th percentile of prevailing vehicle operating speeds, which has been a common practice nationwide and supported by the Manual on Uniform Traffic Control Devices (MUTCD)². The MUTCD is a document produced by the Federal Highway Administration (FHWA) to establish uniform traffic

¹ City of Kirkland Vision Zero <https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/Transportation/Plans-and-Studies-Transportation-Division/Vision-Zero>

² Manual on Uniform Traffic Control Devices for Streets and Highways, FHWA <https://mutcd.fhwa.dot.gov/>

control devices, practices, and more throughout the United States. The 85th percentile speed is defined as the speed at or below which 85% of the drivers travel on a given road segment. This methodology is based on previously published versions of the MUTCD. The 85th percentile prevailing vehicle operating speeds method was a simple and data-based methodology based on the concept that most vehicle drivers operate at speeds that are safe and reasonable.

Per Policy R-17, Kirkland streets are posted at one of three speed limits: 25, 30, or 35 mph. The policy acknowledges that:

- Implementing changes in speed limit alone do not result in changes to prevailing speeds.
- Changing the feel of the road to encourage drivers to slow down is the most effective way to change prevailing speeds.

The current version of Policy R-17 is outdated and needs to be replaced with a new speed limit policy that is consistent with current speed limit setting practice so that it can be used as a tool to achieve safer vehicle operating speeds on Kirkland's streets.

A new speed limit setting policy is also required to comply with recommendations in the most current edition of the MUTCD (11th Edition released in December 2023) for the establishment of speed limits, including:

- Consideration of a range of factors including land-use context, pedestrian and bicyclist activity, roadway geometrics, functional classification, traffic volumes, driveway density, intersection spacing and crash history when setting speed limits.
- Incorporation of speed limit setting tools and methods consistent with the safe system approach when performing a speed limit setting study.

Project Approach:

To support the establishment of a revised data-driven and context-sensitive speed limit policy, City Transportation staff will undertake a citywide speed study. The specific analysis/evaluation technique and data collection methodology is currently being developed and will include elements from nationally published research and guidance documents.

The citywide speed study is likely to include elements from both *NCHRP Report 966: Posted Speed Limit Setting Procedure and Tool: User Guide*³ and *NACTO City Limits, Setting Safe Speed Limits on Urban Streets*⁴. Each methodology is briefly described below:

The NCHRP Report 966, Posted Speed Setting Procedure and Tool: User Guide determines goals for speed limit values for road segments based on an evaluation of the following factors:

- Roadway context (urban, urban core, rural, etc.)
- Road type or functional classification (arterial, collector, local)
- Vehicle operating speed

³ NCHRP Research Report 966 Posted Speed Limit Setting Procedure and Tool: User Guide <https://www.trb.org/Main/Blurbs/182038.aspx>

⁴ NACTO City Limits, Setting Safe Speed Limits on Urban Streets <https://nacto.org/safespeeds/>

- Crash risk based on roadway characteristics including vertical and horizontal alignment, access control, presence of parking, bicycle facilities

This methodology may be considered appropriate for setting speed limits on arterial and collectors streets in Kirkland, but further evaluation is needed.

NACTO City Limits, Setting Safe Speed Limits on Urban Streets is intended as a guidance document for strategically setting speed limits on urban streets and it is based on the *Safe System Approach* to reduce fatal and injury severe crashes. The *Safe System Approach* determines the safest speed for all users of the transportation system and recommends the infrastructure changes required to support that speed.

The NACTO Method uses three tools for establishing speed limits:

- Setting Area-Wide Default Speed Limits
- Designating "Low Speed Zones"
- Setting Corridor Speed Limits

The NACTO methodology may be considered appropriate for setting default speed limits on dense mixed-use urban areas that generate high pedestrian and bicyclist user volumes, which may apply to areas such as Downtown Kirkland, Totem Lake, Juanita Village, and potentially others.

City of Kirkland Transportation Division staff plan to approach the citywide speed study and speed limit policy revision in a way that first and foremost promotes safety of our transportation system's most vulnerable road users, namely people walking, rolling, and bicycling. Staff will use a data-driven approach to inform decision making. The data will include vehicle operating speeds, crash data, adjacent land use, and pedestrian and bicyclist activity. This approach will consider and accommodate for specific street context and environments. Additionally, Transportation Division staff plan to form an internal task force that will include staff from other departments, which may include the Police Department, the City Attorney's office, and the Planning and Building Department, among others.

The goal of the citywide speed study will be to help inform a new policy on how the City will set speed limits on existing and new City streets, define "low-speed areas", and give recommendations on how to move forward with implementation.

Because of the range of data to be collected and the scope of work to be performed, the City intends to solicit the help of a consultant with experience doing similar work for other local agencies.

Transportation Staff will work with the City Manager's Office to determine the appropriate level of public outreach for this effort, and the types of input needed from the traveling public.

City Staff would like input and feedback from Transportation Commission at approximately three touch points throughout the project, namely: at preliminary stage (March 2024 meeting), mid-way through draft development (estimated to be Q3/Q4 2024), and when the draft speed study and speed limit policy is complete (estimated to be Q1 2025).

The tentative timeline of the citywide speed study and speed limit policy update is as follows:

- March 2024 – Preliminary Presentation to Transportation Commission
- April 2024 – Form Internal Task Force
- May 2024 – Implement RFQ/RFP Process
- June 2024 – Consultant Selection
- July 2024 – Contracting and Notice-to-Proceed
- Q1 2025 – Draft Citywide Speed Study and Speed Limit Policy Update
- Q2 2025 – Citywide Speed Study and Speed Limit Policy Adoption

Next Steps:

In the coming weeks, Transportation staff will form an internal task force and solicit consultant help to perform the study.

Attachments:

Attachment A: City of Kirkland Pre-Approved Plans Policy R-17 Speed Limits