

# Residential Speed Limit Review– Pedestrian Crossing Times for Seniors

## ISSUE

This report provides the current process for reviewing and adjusting pedestrian timing at traffic signals and pedestrian actuated devices in areas with a high concentration of seniors.

## BACKGROUND

At its meeting held on November 1, 2021, the Standing Policy Committee on Transportation considered the Residential Speed Limit Review - School Zones, Playground Zones, Senior Zones, and Effective Hours report, and resolved:

“That the Administration report back on a process for reviewing and adjusting crosswalk signal light timing in areas with a high concentration of seniors.”

The report recommended no reduced speed limit for areas with a high concentration of seniors. Rather than a reduced speed limit, potential countermeasures such as increasing pedestrian crossing times at signalized intersections, pedestrian devices, traffic calming, enhanced pavement markings, and improved street lighting will continue to be considered where appropriate.

## CURRENT STATUS

There are approximately 380 existing pedestrian crossing locations in the City that have traffic signals or a pedestrian actuated device. The review of pedestrian timing at these locations is user driven. Adjustments are made, where possible, in response to citizen requests. In addition, walking speeds are updated to align with the latest Transportation Association of Canada's (TAC) guidance whenever an intersection with traffic signals is being reviewed, independent of whether the request was directly related to pedestrian timing.

The Administration follows the guidance provided by TAC's Manual of Uniform Traffic Control Devices for Canada when determining the pedestrian timing at all traffic signals and pedestrian actuated devices. Additional details are provided in Appendix 1.

TAC indicates that walking speeds for older pedestrians vary from 1.07 meters/second (m/s) to 1.62 m/s. However, the 15<sup>th</sup> percentile speeds can be as low as 0.79 m/s. For many years, a walking speed of 1.2 m/s was recommended by TAC. This guidance has been updated and the following walking speeds are now recommended:

- 0.8 m/s where at least 20 percent of pedestrians crossing use an assistive device for mobility.
- 0.9 m/s where at least 20 percent of those crossing are 65 years of age or older.
- 1.0 m/s to accommodate the general population.

At signalized intersections with a high number of conflicts between pedestrians and turning traffic, a Leading Pedestrian Interval (LPI) may be incorporated into the traffic signal timing. A LPI allows pedestrians to begin crossing the street before the adjacent traffic, typically 3 seconds, giving pedestrians a head start. This improves the visibility of pedestrians in the crosswalk and is used to improve motorist yielding behavior. LPIs are particularly helpful for older pedestrians as they may take longer to occupy the crosswalk. The City has implemented LPIs at three intersections: 1) 20<sup>th</sup> Street and Avenue P, 2) Broadway Avenue and 12<sup>th</sup> Street, and 3) Primrose Drive and Pinehouse Drive.

When an issue has been identified, the Administration reviews the existing pedestrian timing and walking speed used, completes a site observation, and may conduct a traffic (and pedestrian) count at the intersection during the peak hours. Collision data may also be reviewed to determine if there has been a history of conflicts between pedestrians and vehicles. If review of the data suggests selection of a lower walking speed is appropriate, or the intersection would benefit from an LPI, the pedestrian timing is adjusted.

### **DISCUSSION/ANALYSIS**

The Administration's goal is to use a 1.0 m/s walking speed, or lower where appropriate, to determine the pedestrian timing at signalized and pedestrian actuated crossings. However, it is possible that higher walking speeds are still being used along high volume corridors and at intersections that have not yet prompted review.

The Residential Speed Limit Review - School Zones, Playground Zones, Senior Zones, and Effective Hours report identified 14 potential senior zones within nine neighbourhoods (Appendix 2). These potential senior zones, or areas with a high concentration of seniors, would have been immediately adjacent to provincially-regulated facilities.

Within the areas with a high concentration of seniors, there are seven traffic signals or pedestrian actuated devices as per the table on the following page. Over the course of 2022, the Administration will review these locations with a goal of aligning the walking speed, if feasible, with the latest TAC recommendations.

Locations without traffic signals or pedestrian crossing devices are evaluated in accordance with TAC's Canadian Traffic Signal Warrant Procedure and Council Policy C07-018, Traffic Control at Pedestrian Crossings, in response to citizen requests.

## Residential Speed Limit Review– Pedestrian Crossing Times for Seniors

Neighbourhood	Pedestrian Crossing Device	Intersection
Caswell Hill/Westmount	Traffic Signal	Idylwyld Drive and 31 <sup>st</sup> Street
College Park and East College Park	Rapid Rectangular Flashing Beacon	Acadia Drive and Carleton Drive
Nutana Suburban Center	Traffic Signal	Preston Avenue and Adelaide Street
	Rapid Rectangular Flashing Beacon	Adelaide Street near Market Mall
Parkridge	Active Pedestrian Corridor	Fairlight Drive and Gropper Crescent
Stonebridge	Traffic Signal	Preston Avenue and Hunter/Cornish Road
Varsity View	Pedestrian Actuated Signal	Wiggins Avenue and Temperance Street

### OTHER IMPLICATIONS

There are no financial, privacy, legal, social, or environmental implications identified.

### NEXT STEPS

The Administration will review the pedestrian timing at the locations noted above in 2022 with a goal of aligning the walking speed, if feasible, with the latest recommendations from TAC.

### APPENDICES

1. Pedestrian Timing Process
2. Senior Zones

#### Report Approval

Written by: Michelle Buchko, Senior Transportation Engineer

Reviewed by: David LeBoutillier, Engineering Manager, Transportation  
Jay Magus, Director of Transportation

Approved by: Terry Schmidt, General Manager, Transportation and Construction