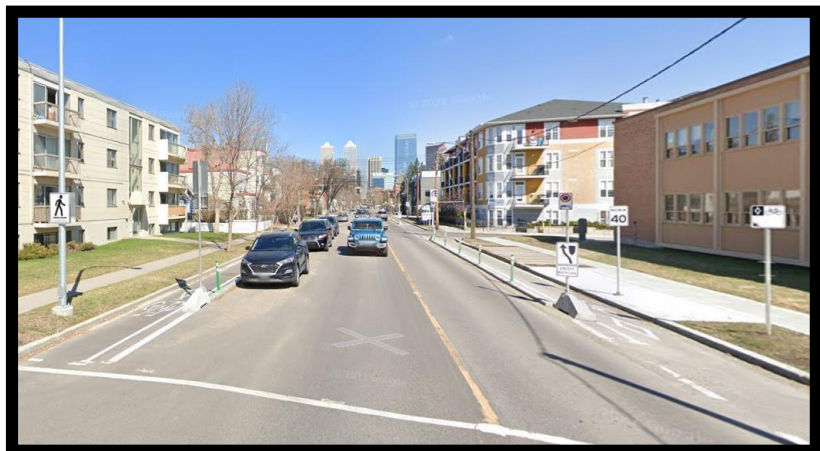


# Neighbourhood Speed Limit Preliminary Evaluation



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Mobility Operations, Mobility Safety

## Neighbourhood Speed Limit Preliminary Evaluation Overview

Safety in Neighbourhoods continues to be a top concern for Calgarians. Improving safety outcomes in Neighbourhoods, through lower motorist speeds, was the main goal of the Neighbourhood Speed Limit review. The approach taken was a low-cost, high-compliance option aimed at aligning speed limits with observed behaviour. Although this change was not anticipated to result in large changes in speed, it was viewed as a cost effective first step on the way to safer speeds. Complimentary benefits of reduced vehicle speeds in Neighbourhoods include increased comfort and feelings of safety for people walking and cycling, lower noise levels, more confidence that walking or cycling to school is a viable option and making sidewalks or front yards more enjoyable places to visit with neighbours. The full technical report for the Neighbourhood Speed Limit Review is available at [Calgary.ca/saferspeed](http://Calgary.ca/saferspeed), or by searching council records for report TT2020-1036.

In total, over 5,200 signs to support the change were planned, designed and installed between February 1, 2021 and May 31, 2021. This included 98 signs at 82 locations to notify motorists entering the city of the default speed limit project as well as signs on Collector roadways to make it clear for motorists where it is 50 km/h and where it is 40 km/h. The default speed limit of 40 km/h applied to approximately 3, 200 km of Residential roadways while the majority of the 1,300 km of Collector roadways remained at 50 km/h, with 340 km/h being reduced to 40 km/h. These signs were installed on time and under budget for the council directed effective date. The total install cost was \$782,000, compared to the approved budget of \$2.3M including data collection and communications of which \$1.9M was assigned for design, supply, and installation of signage.

This preliminary evaluation of the Neighbourhood Speed Limit focused on a survey of Calgarians, requests for review of the speed limit change and observed speeds before and after the change.

The Neighbourhood Speed Limit Review included a review of collisions by classification of road to describe the scope and scale of the issue. The key findings were that roughly one quarter of collisions in Calgary occur on roadways in neighbourhoods and one fifth

of all casualties (injury and fatal collisions) occur on those roads. These are also the roadways for which Administration receives the most concerns through 311 because the operations impact Calgarians directly where they live. Collision data is not yet available for a sufficient period for a meaningful before-after evaluation of police reported collisions and a preliminary review will be included in the Safer Mobility Plan annual reporting in Q4 2023. A final evaluation of the neighbourhood speed limit change including the full 2023 calendar year will be presented with the Safer Mobility Plan annual report in Q4 2024.

Council also directed Administration to develop design standards for Collector Roadways to be 40 km/h and Residential Roadways to be 30 km/h; that work is ongoing as a part of the update to the Design Guidelines for Subdivision Servicing. The final evaluation will also include an update on results from other municipalities in Alberta and across Canada.

## Survey of Initial Change and Support for Reduced Speed Limit

A survey of Calgarians was completed, following the change in default speed limit, to determine awareness of the speed limit change and perceptions of the impacts to Calgarians. The survey was conducted by Leger from July 28 – August 5th, 2021, with 503 Calgarians (aged 18 years or older) via phone using random digit dialing (RDD). The survey was conducted using numbers from both landlines (27% of completed surveys) and cell phones (73%) to obtain a random and statistically representative sample of Calgarians. The survey averaged 13.4 minutes in duration. The margin of error (MOE) for the total sample of n=503 is  $\pm 4.4$  percentage points, 19 times out of 20. To ensure the data were gathered from a representative group of Calgarians, sample quotas were set by age, gender, and city quadrant of the general population aged 18 and older. Data were then weighted to the 2016 Civic Census for age and gender.

### Key Findings:

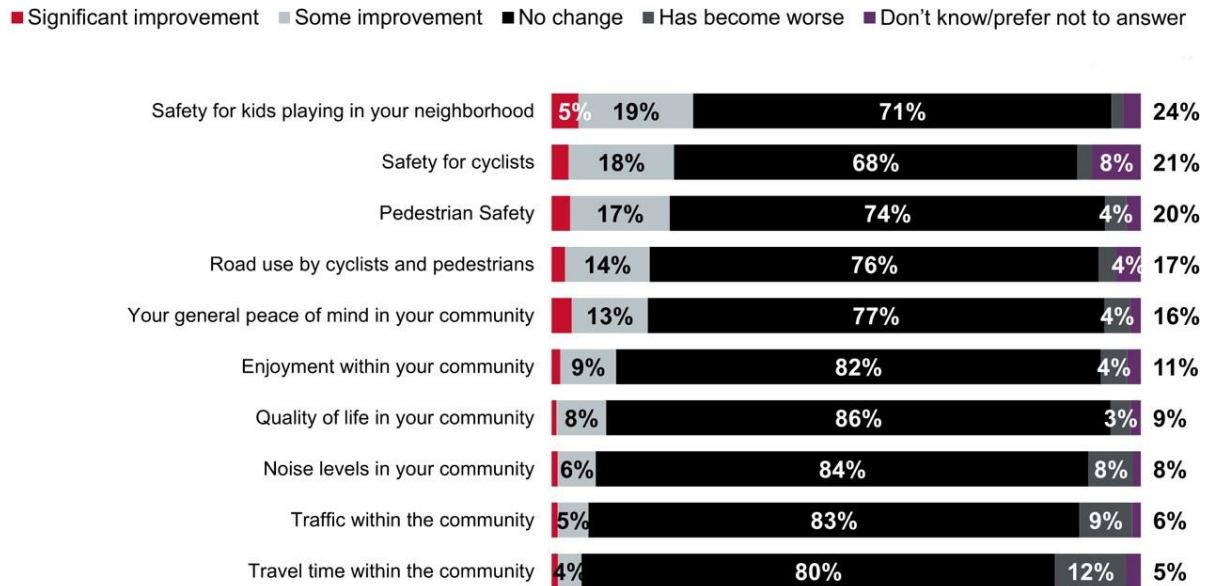
- 81% of survey respondents say they have read, seen, or heard about speed limits in Calgary, while only 19% indicated that they have not. This is up by 32 percentage points since the previous survey.
- Those aged 35+ are more likely than those aged 18-34 to have read, seen or heard anything about speed limits in Calgary (88% of those aged between 35-64 and 85% 65+ vs. 67% of those aged 18-34). However, for those aged 18-34, this is up from 49 percentage points in the first survey from 18%.
- Those who have lived in Calgary for 20 or more years are more likely than those who have lived in Calgary fewer than 10 years to have read, seen or heard anything

about speed limits in Calgary (86% of those who have lived in Calgary 20 or more years vs. 70% of those who have lived in Calgary Fewer than 10 years).

- Those who self-identify as a visible minority are less likely than other Calgarians to have read, seen or heard anything about speed limits in Calgary (74% of those who identify as a visible minority vs. 83% of those who do not).
- Of those survey respondents who have recently read, seen, or heard anything about speed limits in Calgary, just over seven-in-ten (71%) recall specific topics about “reducing the speed limit in residential zones to 40 km/hr. This had increased significantly by 44 percentage points since the previous survey where just under three-in-ten (27%) recalled this information.

In terms of changes that respondents have seen in their communities following the reduction of the unposted speed limit, almost a quarter say that they have seen improvement when it comes to safety for kids playing, followed by 21% who say that safety for cyclists has improved and 20% saying pedestrian safety has improved. A larger selection of factors and Calgarians responses are presented in Figure 1. Overall support for the speed limit change was found to be at least 60%, shown in Figure 2, with higher levels of support for those living on Collector roadways but requesting further changes.

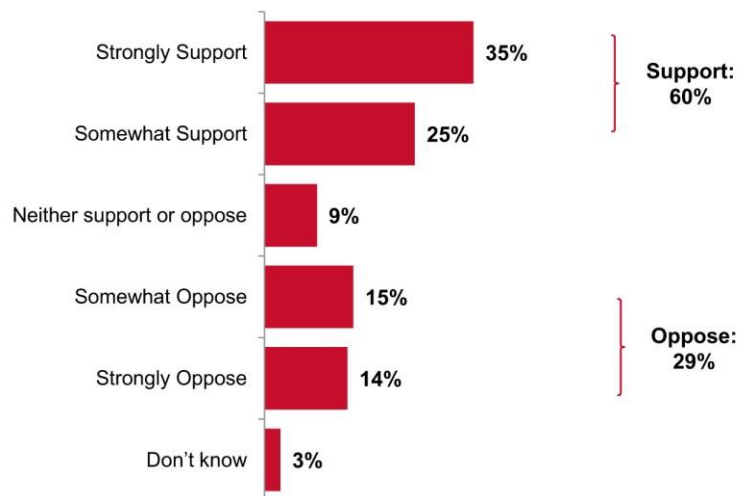
**Figure 1: Perceptions of changes following unposted speed limit reduction**



Since the change to the unposted speed limit at the end of May, to what extent have you noticed a change in the following...  
Base: All respondents (n=503). Note. Data labels that are 3% or less are not shown.

**Figure 2: Support for Reduced Speed Limits in Neighbourhoods**

**Support for The City's Decision to Reduce Speed Limits on Some Roads to 40 km/hr**



## Requests for Speed Limit Reviews in Neighbourhoods

Requests to review speed limits were mostly received in the first few months after the speed limit change and overwhelmingly for speed limits on collector roads to be reduced to 40 km/h as opposed to requests to raise speed limits from 40 km/h back to 50 km/h. In total we have reviewed 60 requests with action taken on 16 of those requests (15 resulting in reduced speed limits). We continue to receive requests to change speed limits and review against the established criteria presented in Figure 3.

**Table 1: Neighbourhood Speed Limit Requests for Review**

Request Type	Speed Reduction	Speed Increase	Approved Reduction	Approved Increase
External/311	21	0	7	0
Councilor / Administrative	32	2	7	1
Internal / Project Teams	5	0	1	0
<b>Total</b>	<b>58</b>	<b>2</b>	<b>15</b>	<b>1</b>

**Figure 3: Criteria for Collector Roadways to be 50 km/h or 40 km/h**

**These criteria will be used to determine if the speed limit will be posted at 50 km/h or if 40 km/h will apply (and may or may not be posted).**

- Roads within Industrial areas and Downtown will remain at their current speed limits.
- Playground Zone signs will remain unaffected (30 km/h from 07:30 to 21:00), but the speed outside of zone hours may change.
- Collector or Neighbourhood Boulevard roadways that have observed speeds consistent with 40 km/h will be left as unposted or posted at 40 km/h as appropriate. As a clear definition: If a speed study is available and the average operating speed is less than 45 km/h, and 85-percentile speed is less than 55 km/h, the speed limit of the roadway will be 40 km/h.
- Collector roadways and Neighbourhood Boulevards that serve a collector function (connect multiple residential roads to arterial roads), provide a connection to another collector roadway or loop back to itself, or carry high traffic volumes (>2000 vehicles/day) are all appropriate to sign at 50 km/h.
- Collectors will not be posted at 50 km/h unless they are 500 metres or longer. If an uninterrupted (i.e. no Playground Zone or stop control) length of a collector is greater than 500 m, it will be posted as 50 km/h. If a road is less than 500 metres, but connects to two higher class roadways and satisfies other criteria (on this list), it will be posted at 50 km/h.
- Cul-de-sacs will not have a posted speed limit. A collector road, with a median, that connects to a cul-de-sac will also not have a posted speed limit.
- Calgary Transit will be consulted for collectors that otherwise would not meet the above criteria but serve a bus route. Collectors with bus routes which have been identified for on-demand transit service will not be posted at 50 km/h unless other criteria are met to post the speed limit at 50 km/h.

## Operating Speeds in Neighbourhoods

The Neighbourhood Speed Limit Review collected speed data on Collector and Residential roadways to quantify the nature of the speeding issue and to serve as baseline data. Post-implementation data has been collected at the same locations where the previous studies were completed and provide an early indication of changes in motorist behaviour. The locations of the studies are shown in Figure 4, and more detail is provided in the technical report presented in council report TT2020-1036.

Initial indications are that operating speeds have decreased on both Residential and Collector roadways. Summary statistics of the speed studies are presented in Table 2. All traffic data, including these speed studies, are available at [trafficcounts.calgary.ca](http://trafficcounts.calgary.ca).

Residential roadways were found to have an overall reduction in average speed of 1.6 km/h relative to the pre-implementation measurements; 85<sup>th</sup> percentile speeds were 2.5 km/h lower which indicates a larger impact on higher level speeds, as expected.

Collector roadways, which largely remained at 50 km/h, were also found to have moderate decreases in speed of 0.8 km/h and 1.5 km/h for average and 85<sup>th</sup> percentile speeds, respectively. These moderations in speed are promising and may suggest that improved compliance on residential roads is also influencing motorist behaviour on Collector roadways. Similar small reductions are notable on Arterial roadways as well.

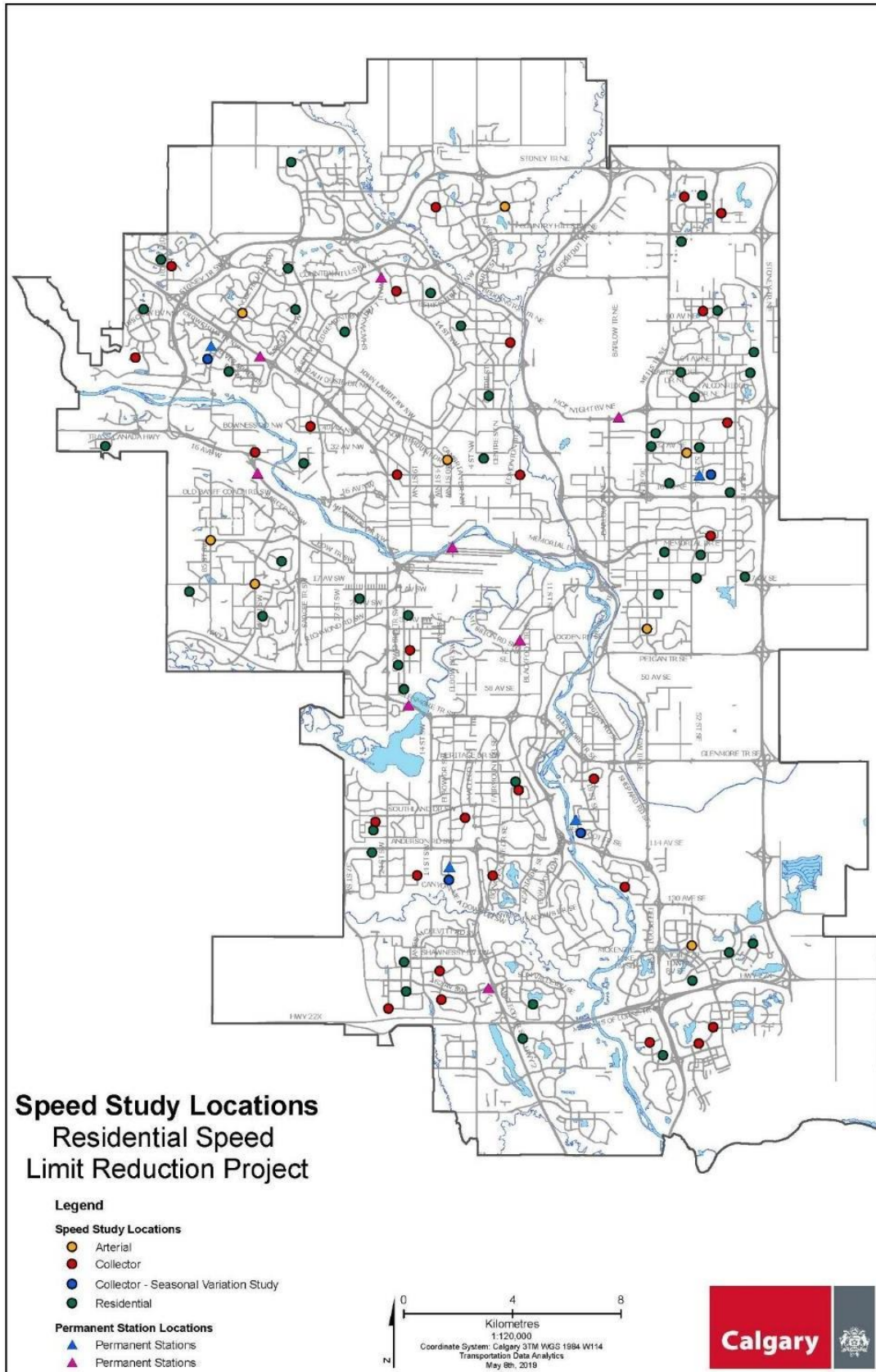
**Table 2: Before and After Speed Summary by Roadway Classification**

Location	Spring 2019			Fall 2019			Fall 2021			Spring 2022		
	Total Speeds	85 %ile (km/h)	Mean (km/h)	Total Speeds	85 %ile (km/h)	Mean (km/h)	Total Speeds	85 %ile (km/h)	Mean (km/h)	Total Speeds	85 %ile (km/h)	Mean (km/h)
Arterial Roadway	138568	67.3	57.8	140099	67.7	58.4	121289	66.6	57.0	108857	67.0	57.5
Collector Roadway	155582	51.5	42.1	78537	52.8	43.0	336905	51.1	42.4	76342	50.2	41.1
Residential Roadway	23398	45.0	34.7	26640	46.2	35.5	21832	43.7	33.9	22845	42.5	33.1

The modest speed reductions noted above are consistent with expected changes in the Neighbourhood Speed Limit Review report and are expected to continue to improve over time; behaviour change takes time, and we will continue to educate and enforce.



Figure 4: Neighbourhood Speed Study Locations



## Speed Limit Changes in other Municipalities

The City of Edmonton completed their change to a default speed limit of 40 km/h on August 6, 2021 and we will update on their future evaluations in our next report on this subject. No other municipality in Alberta has enabling legislation to change default speed limit but advancements will be monitored as we continue our work. The Town of Canmore reduced their speed limit using signage to 30 km/h on June 12, 2023, and we will connect to remain apprised of future evaluations. The City of Toronto has initiated work to revise all local residential roads to 30 km/h by 2025 through a systematic program using an area-based approach that is not possible within our City of Calgary Charter legislation; however, we will be monitoring evaluations of this ongoing effort. Similarly, several boroughs in Montreal have been continuing to reduce speed limits from 40 km/h to 30 km/h as a part of their Vision Zero initiatives and there has been recognition that roadway changes are an important part of that direction.