

Subject: Capital Ward Speed Reductions

File Number: ACS2022-OCC-TRC-0015

Report to Transportation Committee on 30 May 2022

and Council 8 June 2022

**Submitted on May 18, 2022 by Christopher Zwierzchowski,
Committee Coordinator**

Contact Person: Councillor S. Menard, Capital Ward (17)

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Ward: Capital (17)

Objet : Réductions de la vitesse dans le quartier Capitale

Dossier : ACS2022-OCC-TRC-0015

Rapport au Comité des transports le 30 mai 2022

et au Conseil le 8 juin 2022

**Soumis le 18 mai par Christopher Zwierzchowski,
Coordonnateur du comité**

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Quartier : Capitale (17)

REPORT RECOMMENDATIONS

That the Transportation Committee recommend Council approve that:

1. The speed limit be lowered to 30 km/h through the implementation of 30 km/h Gateway Speed Limit Signs within the following zones and corresponding boundaries:

a) Zone 1 (“Dow’s Lake”): Between Bronson Avenue and Commissioner’s Park, and between Carling Avenue and Queen Elizabeth Drive;

- b) **Zone 2 (“Heron Park—North”):** Between Bank Street and Data Centre Road, and between the Transitway and Heron Road;
 - c) **Zone 3 (“Heron Park—South”):** Between Heron Road and Walkley Road, and between Bank Street and the Airport Parkway;
2. **The residential area speed zone in Old Ottawa East be adjusted, so that:**
- a) **the speed limit on Lees Avenue from just east of Chestnut Street to the approach to the Highway 417 overpass be lowered to 30 km/h; and,**
 - b) **the new 30 km/h section of Lees Avenue be incorporated within the existing adjacent 30 km/h gateway zone currently located between Main Street and the Rideau River, and between the 417 and the Rideau River.**

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande que le Conseil approuve :

1. **L’abaissement la limite de vitesse à 30 km/h par l’installation de panneaux de vitesse à l’entrée des zones suivantes et des délimitations correspondantes :**
 - a) **Zone 1 (« lac Dow ») :** de l’avenue Bronson au parc des Commissaires, et de l’avenue Carling à la promenade Reine-Élisabeth;
 - b) **Zone 2 (« parc Heron—Nord ») :** de la rue Bank au chemin Data Centre, et du Transitway au chemin Heron;
 - c) **Zone 3 (« parc Heron—Sud ») :** du chemin Heron au chemin Walkley, et de la rue Bank à la promenade de l’Aéroport;
2. **L’adaption de la zone à vitesse limitée du secteur résidentiel du Vieil Ottawa-Est, aux fins suivantes :**
 - a) **que la limite de vitesse sur l’avenue Lees, entre le point juste à l’est de la rue Chestnut et la voie d’accès au passage supérieur de l’autoroute 417, soit abaissée à 30 km/h; et,**
 - b) **que le nouveau tronçon de l’avenue Lees à 30 km/h soit intégré à la zone d’entrée à 30 km/h adjacente, qui relie actuellement la rue Main à la rivière Rideau et l’autoroute 417 à la rivière Rideau.**

BACKGROUND

It has been a priority of both the City of Ottawa and the office of Councillor Shawn Menard to improve the safety of street users, whether they be car occupants, pedestrians or bicyclists. The city has funded numerous initiatives through its Traffic Services Department and Safer Roads Ottawa, and recently released the *Road Safety Action Plan 3.0*. With its theme, *Think Safety, Act Safely*, the plan seeks to achieve a reduction in the average annual rate of fatal and major injury collisions of 20% by 2024.

The city has implemented the concept of residential area speed zones, providing staff and council with an efficient means to lower speed limits within residential communities. The motion adopted by council allows for the creation of speed zones of either 40 km/h or 30 km/h.

The issue of safer, calmer streets is an important one for residents of Capital Ward, with residents and community associations regularly seeking ways to slow down motor vehicle traffic. Residents in the Heron Park and Dow's Lake have sought safer, slower and calmer streets. Each community has a community association that deals with transportation and safety. Reducing traffic speed is a goal of each committee.

In 2019, Councillor Menard's office implemented the first two 30 km/h residential speed zones in Capital Ward, one for the western section of the Glebe and one for the western section of Old Ottawa South. This was followed up in 2020 and 2021 with the implementation of residential speed zones in Old Ottawa East, the Glebe Annex and the remaining sections of Old Ottawa South and the Glebe. Implementing residential area speed zones in Dow's Lake and Heron Park, lowering the speed limits on Frobisher and Lycée, and adjusting the border of the residential area speed zone along Lees Avenue would harmonize the residential speed limit throughout Capital Ward.

Because traffic speed has a direct impact on the safety of our streets, implementing gateway speed zones of 30 km/h—coupled with TTC measures and other traffic calming initiatives—aligns with and furthers the city's goal of increased safety for all road users.

DISCUSSION

Street safety is a significant concern for the residents of Dow's Lake, Heron Park and all of Capital Ward.

Dow's Lake is a residential neighbourhood in central Ottawa. It is a walkable neighbourhood close to LRT, Commissioner's Park and soon to be situated beside Bus

Rapid Transit along Carling Avenue. It is currently experiencing intensification, with a large-scale development planned at Cambridge and Carling Avenue, and is close to other large developments in the Glebe Annex and the Ottawa Hospital's new Civic Campus development. The Dow's Lake neighbourhood is connected to the communities of the Glebe and the Glebe Annex, both of which are covered by 30 km/h residential area speed zones. Currently, many streets within Dow's Lake are unsigned, resulting in 50 km/h speed limits, which are inappropriate for quiet, residential streets.

Heron Park is a vibrant, walkable community located just south of the Rideau River and the Billings Bridge Shopping Centre. It is adjacent to numerous amenities along Bank Street, Heron Road and Walkley Road. Heron Park enjoys ample bus service, and is serviced by the O-Train, residing along the Trillium Line. It is accessible by the Heron Road cycletrack, and will soon have access the proposed cycletracks along Bank Street. Heron Park is home to two major parks, Heron Park and Kaladar Park.

Within the last year, a residential area speed zone was implemented in Old Ottawa East, including Lees Avenue. The current boundary of the speed zone is located just prior to a public park and residential buildings on Lees Avenue. The adjustment of the speed zone boundary would ensure the park and as many residences as possible are within the speed zone.

There is ample evidence that lowering speed limits and traffic speeds has a positive correlation with overall street safety, as well as lower fatality rates. Specifically, lowering speeds towards 30 km/h has the potential to significantly reduce severe injuries and to save lives.

One study out of the University of Toronto studied the effects of reducing speed limits from 40 km/h to 30 km/h on pedestrian motor vehicle collisions (PMVC). The study found that "[s]peed limit reductions from 40 km/h to 30 km/h were associated with a 28% decrease in the PMVC incidence rate in the City of Toronto (IRR = 0.72, 95% CI: 0.58–0.89). A non-significant 7% decrease in PMVC incidence rates were observed on comparator streets that remained at 40 km/h speed limits (IRR = 0.93, 95% CI: 0.70–1.25). Speed limit reduction also influenced injury severity, with a significant 67% decrease in major and fatal injuries in the post intervention period on streets with speed limit reductions (IRR = 0.33, 95% CI: 0.13–0.85) compared with a 31% not statistically significant decrease in major and fatal injuries on comparator streets (IRR = 0.69, 95% CI: 0.37–1.31). (Fridman et al. BMC Public Health, *Effect of reducing the posted speed limit to 30 km per hour on pedestrian motor vehicle collisions in Toronto, Canada – a quasi experimental, pre-post study*)

The Curtin-Monash Accident Research Centre found risk of pedestrian death reduced exponentially as collision speeds dropped: “It is estimated that less than 10% of pedestrians would die when struck by a vehicle travelling at 30 km/h, compared with fatality rates of 26% at 40 km/h and over 80% at 50 km/h.” (Curtin-Monash Accident Research Centre, *Improving Pedestrian Safety* and *The Impact of Lowered Speed Limits in Urban/Metropolitan Areas*.)

The European Transport Safety Council found that collisions at 32 km/h resulted in a 5% pedestrian fatality rate, whereas collisions at 48 km/h resulted in a 45% pedestrian fatality rate. (ETSC (1995) *Reducing Traffic Injuries resulting from excess and inappropriate speed*.)

In 2004, the World Health Organization noted that studies suggest that for each decrease of 1 km/h in a car’s speed, there is a 2% to 3% reduction in collisions. (WHO, *World report on road traffic injury prevention*).

Switzerland saw fewer accidents (15%) and a reduction in severity (27%) in 30km/h zones. (Lindenmann, H. P. (2005). *The effects on road safety of 30 kilometer-per-hour zone signposting in residential districts*. Institute of Transportation Engineers. ITE Journal, 75(6), 50-54.)

In 32 km/h speed zones in London, UK, there was a significant reduction in road casualties (42%, 48% among those under 16 years old) compared to adjacent areas where the speed limits were not reduced. (Grundy, C., Steinbach, R., Edwards, P., Green, J., Armstrong, B., & Wilkinson, P. 2009. *Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis*. Bmj, 339).

Lancashire County, UK, implemented 30 km/h speed limit zones in all residential areas and all school zones. Initial indications were that deaths and injuries dropped (WHO. 2013. *Pedestrian safety: a road safety manual for decisionmakers and practitioners*. World Health Organization.
from http://apps.who.int/iris/bitstream/10665/79753/1/9789241505352_eng.pdf).

Lowering speed limits is only part of the efforts to reduce traffic speed in Capital Ward. The city has, recently, added additional bicycle lanes to a number of streets, narrowing the roadway and deterring speeding. The councillor’s office has been dedicated to implementing further measures to reduce speeds, including using TTC measures, as well as more permanent initiatives. The councillor’s office will continue to use the Capital Ward TTC budget to calm traffic.

Capital Ward has a significant active transportation modal share. Providing more opportunities for residents to walk and bicycle safely has been a focus of city development in the ward. In recent years, the city has installed additional bicycle and pedestrian infrastructure, most notably the new underpass along the Rideau River Multi-Use Path and the recent construction of the Flora MacDonald Footbridge. In coming years, Bank Street will be re-built as a Complete Street. This year, the Bank Street Canal Bridge will provide segregated facilities for bicyclists and pedestrians. In the near future, another active transportation connection will be constructed between the Carleton University campus and Vincent Massey Park.

Calming streets and slowing traffic will help support these efforts by the city. It will also create safer and healthier neighbourhoods. Lowering speed limits to 30 km/h and creating residential area speed zones in Dow's Lake and Heron Park are a part of this endeavour.

RURAL IMPLICATIONS

There are no rural implications associated with this report or its recommendations.

CONSULTATION

Public Works Comment:

Road safety engineering best practices support that it is important to maintain consistent, uniform speed limits on any roadway to provide all users including pedestrians, cyclists, adjacent residents and motorists with a correct representation of the actual speed of traffic on that roadway. The provision of speed limits considers the roadway function and its design. Implementing a speed limit that does not align with these considerations may result in enforcement difficulties and increases in traffic hazard. Lowering the speed limits on City streets without consideration of the physical configuration of the road will have minimal impact on driver behaviour. In such cases where a posted speed limit is below operating speeds, most motorists will continue to drive at speeds they feel are reasonable and prudent unless continual police enforcement is present. The visual and physical cues a driver uses to determine the appropriate travel speed should be consistent with the posted speed limit.

There are two different approaches to consider when lowering a speed limit to less than 50 km/h in Ottawa:

1. Existing Policies: When operating speeds are not at 40 km/h or 30 km/h, both the Council-approved Speed Zoning Policy and the 30 km/h Speed Limit Policy, provide

the criteria which must be met in order for staff to have the authority to implement a speed limit change on a specific roadway; and,

2. Council-Approved Gateway Signage By-law: On August 29, 2018, City Council approved the Gateway Speed Limit Signage in Residential Areas Report (2018-TSD-PLN-0008), and the revised Gateway Speed Limit Signage By-law. By-Law No. 2018- 288 provides the Public Works Department the delegated authority to designate certain residential areas with speed limits lower than 50 km/h through the use of 40 km/h or 30 km/h Gateway Signage consistent with both the Speed Zoning and the 30 km/h Speed Limit Policies. When this by-law is applied, the petition requirements identified in the City's Speed Zoning Policy and the 30 km/h Speed Limit Policy are waived for those areas that will be signed using Gateway Speed Limit Signage. This is due to the onerous implications required to undertake a petition process for a large area consisting of multiple residential roadways.

Gateway speed limit signs are posted at each entry and exit point to a community where lower speeds are in effect. The Entry Gateway Speed Limit Sign identifies the beginning of a legal speed limit that applies to all roadways within an area. The Exit Gateway Speed Limit Sign marks the end of the lower speed limit. All streets that fall within the posted entry sign and exit sign are designated with the same speed limit identified on the gateway signs.

As per the Council-approved eligibility criteria, 30 km/h Gateway Speed Limit Signage can only be used to establish the speed limit in neighborhoods with roadways meeting either of the following criteria:

1. operating speed (defined as the 85th Percentile Speed) equal to or less than 35 km/h; or,
2. meet Roadway and Traffic Environment criteria, the Active Transportation Environment criteria and Roadway Width as defined in the 30 km/h Speed Limit Policy.

Posting a 30 km/h speed limit on a roadway where the operating speed is much greater, may increase the crash risk. Some drivers will choose to comply with the 30 km/h speed limit while others will continue to drive the higher speed at which they feel comfortable travelling. The varying difference in operating speeds between individual vehicles may increase the risk of collision as the potential for interactions or conflicts between vehicles is greater.

ITEM 1 – Speed Reductions / Implementation of 30 Km/h Gateway Speed Limit Zones referred to as Dow's Lake, Heron Park-North, and Heron Park-South

Traffic Services staff completed a site investigation of the three areas which have been put forward for 30 km/h Gateway Speed Limit Signage; each consist entirely of residential roadways. Staff reviewed the existing speed data on file in order to complete a review of the multiple roadways to assess each area's eligibility for gateway signage.

Speed data, along with the boundaries for the proposed new 30 Km/h Gateway Speed Limit areas, are identified in Document 1 – Zone 1 ("Dow's Lake"), Document 2 – Zone 2 ("Heron Park—North") and Document 3 – Zone 3 ("Heron Park—South"). As per the available speed data, the majority of the roadways for which speed data was available have an operating speed greater than 35 km/h. Additionally, upon further review, many of the roadways do not meet the required Roadway and Traffic Environment criteria, the Active Transportation Environment criteria and Roadway Width criteria required for the implementation of 30 km/h Gateway Speed Limit Signage.

In order to meet the policy criteria, given that most operating speeds are greater than 35 km/h, affected roadways would need pavement marking modifications to narrow local residential entrance widths to 7 meters. To modify entrance widths at all intersections within the three areas, it would cost approximately \$46,000.00 in pavement marking applications. The cost to apply the initial pavement markings, as required, would be funded through Councillor Menard's future Ward Temporary Traffic Calming (TTC) budgets over the next few years.

The estimated cost for the implementation of signs in all three zones is \$20,700.00 for labour and materials. Out of these total costs, \$9,500 for the implementation of signs in Zone 1 ("Dow's Lake"), will be funded by the Traffic Services Signage Maintenance account. The costs associated to the remaining zones, \$11,200, will be covered by Councillor Menard's Temporary Traffic Calming budgets.

ITEM 2 – Speed Reduction on Lees Avenue and Expansion of Existing 30 Km/h Gateway Speed Zone in Old Ottawa East

The Council-approved City of Ottawa *Speed Zoning Policy* states that the speed limit along an arterial roadway should be based on the actual 85th percentile speed (i.e. the speed at or below which 85% of all the vehicles travel) of the free-flowing traffic on the street. Available speed data, along with the boundaries for the proposed new 30 Km/h Gateway Speed Limit zone along Lees Avenue are identified in Document 4 - Speed Reduction Lees Avenue/Gateway Zone.

Should the section of Lees Avenue from just east of Chestnut Street to the approach to the Highway 417 overpass receive approval for a posted 30 km/h speed limit, it will need to be included as part of the existing 30 km/h Speed Limit Gateway area currently located between Main Street and the Rideau River, and between the 417 and the Rideau River. Please see Document 4 for the new zone boundaries.

The cost of the signage installation for the expansion of the zone will be funded by Councillor Menard's Temporary Traffic Calming (TTC) budget. The estimated cost is approximately \$1,000 plus HST including both the costs for materials and labour.

With respect to either Item 1, or Item 2 referenced above, given existing speed surveys and driver behaviours, the Public Works Department does not expect the communities' operating speeds to be significantly reduced because of the implementation of 30 km/h speed limit gateway signage unless considerable police enforcement occurs on an on-going basis.

Upon Council approval of the report, the Public Works Department will endeavor to implement all required gateway signage by the end of 2022.

Further, where applicable, the installation of the gateway signage can be completed prior to the installation of pavement markings, however Traffic Services would recommend that the painted road narrowings be implemented in 2022 at locations where the 30 km/h gateway signs are placed. The narrowings are recommended to provide further guidance to motorists that they are entering a 30 km/h zone, which may lead to improved adherence to the 30 km/h speed limit.

COMMENTS BY THE WARD COUNCILLOR(S)

Councillor Menard is supportive of the proposal to create residential area speed zones of 30 km/h in Dow's Lake and Heron Park, and to adjust the area speed zone boundary along Lees Avenue,, as outlined in this report. These are important initiatives for our communities, and they will help provide continuity for drivers, as other areas within Capital Ward have already seen 30 km/h residential area speed zones implemented.

ADVISORY COMMITTEE(S) COMMENTS

This report has not been considered by Advisory Committees.

LEGAL IMPLICATIONS

There are no legal impediments to approving the recommendations as outlined in this report.

RISK MANAGEMENT IMPLICATIONS

No specific Risk Management Implications have been identified in the preparation of this report. Staff will be available at the meeting to respond to questions, as may be required.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the report recommendations.

ACCESSIBILITY IMPACTS

No specific Accessibility Impacts have been identified in the preparation of this report. Staff will be available at the meeting to respond to questions, as may be required.

TERM OF COUNCIL PRIORITIES

The implementation of gateway speed zones in Dow's Lake and Heron Park aligns with the following three Term of Council Priorities:

Integrated Transportation

The residential area speed zones and associated traffic-calming measures will help enable effective mobility through a sustainable, accessible and connected city transportation system; they will provide residents with easy access to their preferred transport choice; and they will enhance the safety of vulnerable road-users.

Thriving Communities

The residential area speed zones and associated traffic-calming measures will enhance safety and livability of our streets by slowing vehicles and making the streets more welcome for all road-users.

Environmental Stewardship

The residential area speed zones and associated traffic-calming measures will provide safer streets, allowing more residents to switch to active transportation

SUPPORTING DOCUMENTATION

- Document 1 – Zone 1 (“Dow’s Lake”)
- Document 2 – Zone 2 (“Heron Park - North”)
- Document 3 – Zone 3 (“Heron Park - South”)
- Document 4 – Speed Reduction Lees Avenue/Gateway Zone

DISPOSITION

The Public Works Department will take appropriate action based on the recommendations made by the Committee and Council.