



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: January 12, 2024

From: Lloyd Bie, P.Eng.
Director, Transportation

File: 10-6500-01/2023-Vol
01

Re: Hamilton Area Traffic Calming

Staff Recommendation

1. That traffic calming measures outlined in Option 3 for Westminster Highway, as described in the staff report titled "Hamilton Area Traffic Calming", dated January 12, 2024 from the Director, Transportation, be endorsed;
2. That speed limits on local roads in Hamilton be reduced from 50 km/h to 30 km/h as described in the staff report titled "Hamilton Area Traffic Calming", dated January 12, 2024 from the Director, Transportation; and
3. That staff bring forward amendments to Traffic Bylaw No. 5870 to reflect speed limit reductions for local roads in Hamilton.

Lloyd Bie, P.Eng.
Director, Transportation
(604-276-4131)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Public Works	<input checked="" type="checkbox"/>	
RCMP	<input checked="" type="checkbox"/>	
Bylaws	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS:	APPROVED BY CAO

Staff Report

Origin

At the May 17, 2023 Public Works & Transportation committee, staff received direction to:

- *Conduct a speed study in the area near Cranberry Children's Centre on Westminster Highway; and*
- *Investigate reducing the speed limit in the Hamilton area and report back.*

This report addresses this referral.

This report supports Council's Strategic Plan 2022-2026 Proactive in Stakeholder and Civic Engagement:

Proactive stakeholder and civic engagement to foster understanding and involvement and advance Richmond's interests.

This report supports Council's Strategic Plan 2022-2026 Focus Area #3 A Safe and Prepared Community:

Community safety and preparedness through effective planning, strategic partnerships and proactive programs.

This report supports Council's Strategic Plan 2022-2026 Focus Area #6 A Vibrant, Resilient and Active Community:

Vibrant, resilient and active communities supported by a wide variety of opportunities to get involved, build relationships and access resources.

Analysis

Local Traffic Context

Hamilton's road network consists of Westminster Highway, an arterial road that is part of the region's Major Road Network, and a number of local roads. The majority of roads have a 50 km/h speed limit as is typical throughout Richmond. Roads surrounding local parks and schools have posted speed limits of 30 km/h during daytime hours. The City has implemented a number of traffic calming measures in response to public requests, as illustrated in Figure 1.



Figure 1 - Hamilton Area Traffic Context

Speed Study and Crash History

Speed studies were conducted at three locations along Westminster Highway and seven locations on local roads. Data was collected for a minimum one week duration at each location. The location and results of these studies are presented in Appendix A. The studies indicated:

- Speeding issues at one localized section of Westminster Highway, fronting the Cranberry Children's Centre;
- No speeding issues at other locations along Westminster Highway; and
- No speeding issues on local roads.

Results of the speed study have been shared with the RCMP and increased enforcement will take place on Westminster Highway.

Staff reviewed ICBC crash data for the past five years. A total of 117 incidents were recorded in the Hamilton area. 82% of these incidents took place along Westminster Highway, which experiences higher traffic volumes as an arterial road and involves higher speeds as documented through the speed study. 98% of incidents on Westminster Highway took place at an intersection. No incidents were recorded at the section fronting Cranberry Children's Centre.

On local roads, 21 incidents were documented over the past 5 years, representing an average of 4 incidents per year. The majority of these involved near misses or minor single-vehicle incidents and were unrelated to speeding.

Public Engagement

Public engagement was conducted to seek feedback from the Hamilton neighbourhood on speed limit reductions on Westminster Highway (arterial road) and local roads. The engagement also sought feedback on potential traffic calming on Westminster Highway near the Cranberry Children's Centre to address the observed speeding issues.

The engagement process included an in-person information session, an online survey posted through the City's Let's Talk Richmond platform and a mail out of the survey to all property owners. 1665 surveys were mailed out and 437 responses were received. Results of the engagement are summarized in Table 1.

Table 1: Resident Survey Feedback

Topic	Resident Survey Feedback
Speed Limit Reductions	<ul style="list-style-type: none"> 62% of respondents supported speed limit reductions on local roads from 50 km/h to 30 km/h. 21% of respondents supported speed limit reductions on Westminster Highway from 50 km/h to 30 km/h. Some respondents opposed to speed limit reductions felt speeding was not a concern, were concerned about inconvenience or felt increased enforcement would be more effective at reducing speeds.
Physical Traffic Calming on Westminster Highway	<ul style="list-style-type: none"> 55% of respondents supported physical traffic calming measures on Westminster Highway fronting Cranberry Children's Centre. Some respondents opposed to traffic calming were specifically opposed to the use of speed humps and median curbs.
Additional Traffic-related Feedback	<ul style="list-style-type: none"> A number of respondents requested increased enforcement around posted speed limits. 11% respondents expressed a desire to prohibit trucks on Westminster Highway. As Westminster Highway is located on the region's Major Road Network, implementation of such restriction would require further public engagement and coordination with TransLink.

Traffic Calming Options

Westminster Highway fronting Cranberry Children's Centre

A speeding issue identified for a localized section of Westminster Highway near the Cranberry Children's Centre. 85th percentile speeds of 65 km/h and 87 km/h were recorded in the eastbound and westbound directions respectively, with speeds of up to 150 km/h recorded. Options for traffic calming at this location are assessed below.

Option 1: Status Quo

No physical traffic calming is proposed. In the short term, increased enforcement will take place and staff will continue to monitor speeds on Westminster Highway. In the long term, opportunities to implement traffic circles at intersections will be assessed through re-development.

Option 2: Curb-Mounted Shoulder Delineators

The addition of shoulder delineators visually narrows the road and alerts drivers to slow down. With a bike lane along the shoulder of Westminster Highway, this installation provides protection for cyclists in addition to traffic calming. Staff recommend installing this treatment over a 250 m section where speeding was observed, beginning at the speed reader sign fronting the Hamilton Transit Exchange and extending through the full frontage of the Cranberry Children's Centre. Curb-mounted delineators provide robust protection and cost approximately \$175,000 to install.



Figure 2: Curb-mounted Delineators at Garden City and Westminster

Option 3: Flexible Shoulder Delineators (Recommended)

Flexible delineators can be installed in a similar manner to that described in Option 2. While flexible delineators do not provide the same level of protection as curb-mounted delineators and have higher maintenance demands as they are more easily damaged, they have a lower installation cost of approximately \$20,000.

Through this option, staff will continue to monitor speeds and assess the effectiveness of the installation over a 6 month period. If proven effective, staff will bring forward recommendations to install curb-mounted shoulder delineators as part of future capital budgets for Council's consideration.



Figure 3: Shoulder Delineators at Railway and Granville

Staff Recommendation

Staff recommend Option 3. Speeding issues were identified at this location and staff recommend implementing physical traffic calming to reduce speeds and improve safety. While public engagement showed that 45% of respondents did not support physical traffic calming at this location, feedback showed resistance to the use of speed humps or median treatments. The recommended option addresses resident concerns and can be installed at a relatively low cost,

providing an opportunity for staff to monitor its effectiveness before higher cost options are brought forward for consideration.

Local Roads

Option 1: Status Quo

No changes are proposed as no speeding issues were identified.

Option 2: Speed Limit Reduction from 50 km/h to 30 km/h (Recommended)

Speed limits are reduced from 50 km/h to 30 km/h for all local roads within Hamilton. While there is no identified speeding issue, the City has received concerns regarding perceived speeding within the neighbourhood. This may indicate that the posted speed limit is faster than what feels safe and comfortable for users, and there is potential for reducing the posted speed limit.

Both Vision Zero, TransLink's Transport 2050 plan and the BC Community Road Safety Toolkit support speed limit reductions on local roads. Research on vehicle speeds and road safety show strong correlations between lower speeds and improved safety. Lower speeds reduce crash occurrences and crash severity. Research also indicates that speed limit reductions are effective in reducing actual speeds for local roads.

Staff Recommendation

Staff recommend Option 2. While speed studies did not identify speeding issues, residents have expressed concerns about speeding, and public engagement results show that a majority of respondents support the initiative. This approach is in alignment with recommendations of Vision Zero and Transport 2050 and is supported by the local neighbourhood. Staff recommend implementing this in the Hamilton neighbourhood, with future potential to implement speed limit reductions on more local roads within Richmond.

Financial Impact

There are no financial impacts for the proposed speed limit reductions on local roads. The cost to implement Option 3 to install flexible shoulder delineators on Westminster Highway fronting Cranberry Children's Centre is \$20,000. This can be funded through the Council-approved 2023 Traffic Calming Program.

The ongoing budget impacts of delineator installation, including additional equipment for sweeping and cleaning and replacement of damaged delineators, will be assessed and recommendations will be brought forward through future budget recommendations for Council's consideration.

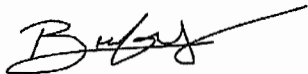
Conclusion

In response to resident and Committee's concerns regarding potential speeding within the Hamilton neighbourhood, staff assessed speeding and engaged with the local residents on

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potential traffic calming measures. Staff recommend that speed limits on local roads within Hamilton be reduced to 30 km/h and shoulder delineators be installed for a section of Westminster Highway fronting the Cranberry Children's Centre.

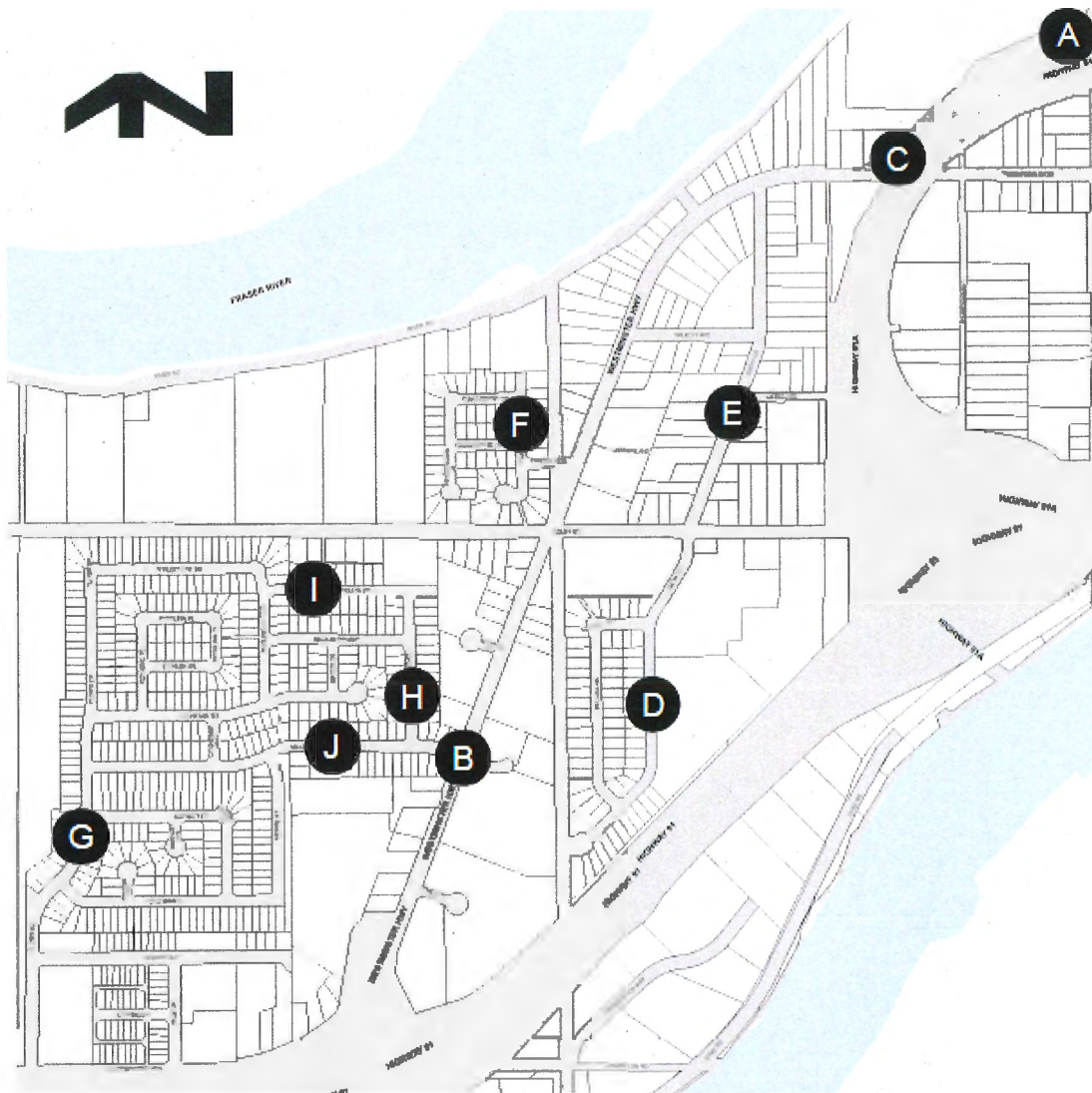


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BN:cas

Att. 1 Appendix A: Location and Results of Speed Studies

Appendix A: Location and Results of Speed Studies



Location		Speed Limit (km/h)	Eastbound / Southbound		Westbound / Northbound	
ID	Description		Average (km/h)	85th Percentile (km/h)	Average (km/h)	85th Percentile (km/h)
A	Westminster Highway @ Hamilton Transit Centre	50	45	59		
B	Westminster Hwy @ McLean Ave	50			38	56
C	Westminster Hwy @ Cranberry Children's Centre	50	55	65	65	87
D	Smith Dr	50	39	49	35	43
E	Smith Cres	50	46	55	46	56
F	Fraserside Dr	50	33	41	26	35
G	Oliver Dr	50	37	45	42	50
H	Turner St	50			37	45
I	Rathburn Dr	50	36	45		
J	McLean Ave	30	33	37	23	29