



CITY OF RICHMOND

REPORT TO COMMITTEE

TO: Public Works and Transportation Committee

DATE: January 23, 2001

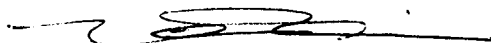
FROM: Gordon Chan, P. Eng.
Manager, Transportation

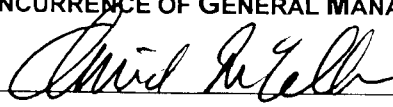
FILE: 6450-09

RE: HAMILTON AREA - TRAFFIC SAFETY ENHANCEMENT INITIATIVES

STAFF RECOMMENDATION

1. That Council endorse in principle the implementation of the following traffic engineering measures aimed at enhancing traffic safety in the Hamilton area (Westminster Highway between the Hamilton Interchange and Gilley Road):
 - (a) implementation of a continuous barrier along the west shoulder of Westminster Highway (Gilley Road to the Highway 91 on-ramp) as described in the attached report, at an estimated cost of \$42,000, with the City's portion of the cost being \$21,000 and TransLink funding the \$21,000 balance;
 - (b) installation of three additional accessible bus stops within the above section of Westminster Highway to enhance transit access in the Hamilton area at a total cost of \$15,000;
 - (c) installation of additional curbside barriers at the intersections of Westminster Highway with McLean Avenue and Gilley Road to create pedestrian refuges at a cost of \$5,000; and
 - (d) the addition of additional speed limit signs as well as "Residential Area" signs along the Westminster Highway corridor through the Hamilton area.
2. That the funding source of the above proposed measures be the 2000 Minor Capital Program for Traffic Safety Improvements.
3. That staff be directed to monitor traffic conditions along Westminster Highway in the Hamilton area for one year following the implementation of the proposed traffic safety measures and report back to Council on the effectiveness of the measures.


for Gordon Chan, P. Eng.
Manager, Transportation

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STAFF REPORT

ORIGIN

Over the last two years, staff have been working with Hamilton area residents and the Richmond Committee on Disabilities to identify measures aimed at enhancing traffic safety on Westminster Highway in the Hamilton area. A number of traffic safety improvement initiatives have been introduced in the area through consultative efforts with residents (e.g., pedestrian signals, speed enforcement, walkway construction, traffic signage installations, and accessible bus stop upgrades).

As part of an on-going program to further enhance traffic safety in this section of Westminster Highway, staff have consulted with neighbourhood representatives again and have developed a set of additional traffic safety measures.

This staff report presents the traffic safety issues identified by Hamilton area residents and the results of staff's further review of traffic conditions in the Hamilton area. A range of proposed traffic safety measures that can be implemented to enhance traffic safety in the area are documented in this report.

ANALYSIS

1. Traffic Safety Issues Identified by Area Residents

Area residents have identified the following issues related to traffic safety in the Hamilton area.

Speeding – Hamilton residents have requested that measures be put in place to address speeding on Westminster Highway. The measures recommended by residents included reduction of the current speed limit, introduction of speed bumps, additional signs, and new traffic signals. Some area residents are also concerned with the speed of vehicles adjacent to McLean Park. They believe that the current 30 km/h speed limit established around the periphery of the park is being ignored occasionally.

Pedestrian Facilities – Residents are concerned about the safety of pedestrians on Westminster Highway. Some residents have suggested that the pedestrian signals at McLean Avenue and Gilley Road be upgraded to full traffic signals and that an additional crosswalk be installed at McLean Avenue as a number of school children cross at this location. Residents have also requested that measures be put in place to prevent vehicles from passing on the right while a vehicle in front is making a left turn at the McLean Avenue and Westminster Highway intersection.

Accessible Bus Stops – The Richmond Committee on Disabilities and Hamilton residents have requested that all the bus stops on Westminster Highway between the Hamilton interchange and Boundary Road be made wheelchair accessible.

Truck Traffic – Residents have asked that the City ban trucks from Westminster Highway as they feel these trucks compromise the safety of the roadway and cause vibrations and excessive noise.

2. Review of Traffic Conditions on Westminster Highway

Staff's findings of the various issues raised by the area residents are summarized below.

2.1 Travel Speeds

Staff carried out travel speed surveys on Westminster Highway in December, 1998 and June, 1999. Traffic observations were also conducted during several site visits over the past year. The posted speed limit on Westminster Highway is 50 km/h. The results of the studies indicated that the southbound average speed was 53 km/h and the 85th percentile traffic speed was 61 km/h (that is, 85% of vehicles travel at or less than 61 km/hr). The northbound average speed was 52 km/h and the 85th percentile speed was 60 km/h. No significant seasonal variations in speed were found.

The Richmond RCMP has increased enforcement of the 50 km/hr speed limit in the area and plan to open a Speed Watch office on Westminster Highway in the Hamilton area in Spring, 2001. The Richmond RCMP is also considering the establishment of a photo radar unit at this location. The installation of speed bumps on Westminster Highway is not recommended due to liability reasons related to the purpose of Westminster Highway as a major arterial road that moves people and goods. Staff anticipate that the installation of speed bumps would also generate noise and vibration that may not be acceptable to adjacent residents. An arbitrary reduction of the speed limit to 30 km/h on a major arterial road such as Westminster Highway is also expected to result in very low levels of compliance based on industry experience.

2.2 Pedestrian Facilities and Accessible Bus Stops

There are no raised sidewalks on Westminster Highway and pedestrians presently use the shoulder of the road. Pedestrian passage across Westminster Highway is provided by means of two pedestrian-actuated traffic signals at McLean Avenue and Gilley Road. Installation of full traffic signals may not be warranted at these intersections based on consideration of traffic volumes, accident history, etc. Furthermore, the inappropriate installation of traffic control devices could result in poor compliance to the devices by drivers, which may result in unsafe conditions.

Over the last several years, staff have implemented the following improvements to enhance pedestrian safety on Westminster Highway:

- Installed three accessible bus stops along Westminster Highway;
- Installed pedestrian-activated signals on Westminster Highway at Gilley Road and McLean Avenue;
- Repaired the asphalt extruded curb on the east side of Westminster Highway to provide a pedestrian walkway;
- Provided an additional crossing at McLean Avenue and repainted the existing crosswalk at Gilley Road to enhance traffic safety;
- Rearranged the barriers on the west side of Westminster Highway at Gilley Road to provide a larger pedestrian refuge area; and
- Installed additional speed limit signage on the approach to and at McLean Park to emphasize the 30 km/h speed zone.

2.3 Truck Traffic

Over the last few decades, the 22000 block of Westminster Highway has been used as a truck route to access industrial and commercial properties located along the 21000 to 23000 blocks of Westminster Highway. A review of the origins and destinations of trucks on Westminster Highway conducted in May, 1999 indicated that there is a low incidence of short cutting with most trucks conducting business in the area.

In staff's assessment, it is not recommended that truck traffic be banned on this section of Westminster Highway for the following reasons:

- This roadway is a primary link to industry in the Queensborough and Richmond areas;
- This type of restriction would unduly restrict business in the area;
- The City alone does not have the legal authority to restrict truck activities; and
- This type of restriction would be difficult to enforce due to local truck access requirements.

3. Staff Recommendations

In addition to the above recent improvements and initiatives to address the concerns raised by the residents of the Hamilton area, the following additional traffic safety enhancements are recommended:

Introduction of Continuous Barriers – The west shoulder of Westminster Highway is separated from vehicular traffic by barriers spaced at 15 metre intervals. It is proposed that continuous barriers be placed from Gilley Road to the Highway 91 on-ramp to protect pedestrians and restrict vehicles from entering the shoulder to pass on the right. The estimated cost of this improvement is \$42,000, 50 percent of which is eligible for cost-sharing with TransLink.

Accessible Bus Stops – Three bus stops on Westminster Highway have been made wheelchair accessible. Three additional wheelchair accessible bus stops are proposed to be constructed as part of the 2000 Minor Capital Program. An accessible bus stop is typically a 1.5-m wide and 9.0-m long pad with a 3.0-m square landing area, ramps at both ends, railings and retaining walls. Landscaping is done after installation to match the surrounding area and when possible a sidewalk is constructed to link the accessible pad to a nearby existing sidewalk. These improvements, estimated at \$15,000, are eligible for cost-sharing with TransLink, as they are located on the Major Road Network. Staff will pursue this funding contribution through TransLink's 2001 MRN Minor Capital Improvement Program.

Measures to Address Speeding – The Richmond RCMP will continue to routinely enforce the speed limit within the Hamilton area and are working to finalize arrangements to establish a location for the Hamilton area Speed Watch program. There is a list of volunteers ready to start the training as soon as the location has been obtained to secure the equipment. Additional speed limit signs will be placed along the Westminster Highway corridor through the Hamilton area as well as "Residential Area" signs to make drivers more aware of the change from commercial to residential use.

4. Staff Consultation with Hamilton Area Residents' Representatives

Staff have met with representatives of the Hamilton area to discuss the proposed improvements with representatives of the Hamilton area residents and have obtained their full support for the above safety enhancements. During the discussion, residents re-iterated their suggestion for full traffic signals at McLean Avenue and Gilley Road, cited further concerns with pedestrian safety along Westminster Highway and suggested the installation of a stop sign on Oliver Road at Wilson Avenue due to concerns of the speed of vehicles on Oliver Road and the visibility of these vehicles for traffic turning from Wilson Avenue.

Staff propose the following additional pedestrian and traffic safety improvements to address these concerns.

Curbside Barriers – Additional curbside barriers will be placed at the intersections of Westminster Highway with McLean Avenue and Gilley Road to create pedestrian refuges at an estimated cost of \$5,000 to be funded from the 2000 Minor Capital Program.

Increased Lighting – Staff will upgrade at minimal cost the streetlighting at the McLean Avenue and Gilley Road intersections to increase the lighting level and improve the visibility of pedestrians at these crossings.

Monitoring of Traffic Conditions – Staff will monitor traffic conditions at the McLean Avenue and Gilley Road intersections to determine if an upgrade of the pedestrian-actuated signals to full traffic signals is warranted. However, as heavy traffic volumes are currently limited to two one-hour periods during weekday mornings and afternoons only when schoolchildren are dropped off and picked up from Hamilton school, staff do not anticipate that the upgrade will be warranted at this time. Staff will also monitor traffic conditions along Oliver Road to determine if a stop sign is warranted on Oliver Road at Wilson Avenue.

FINANCIAL IMPACT

The installation of continuous barriers along the west side of Westminster Highway is estimated at \$42,000. TransLink will cost-share 50 percent of the cost of the project, with the remaining \$21,000 to be covered by the City's 2000 Minor Capital Program. The cost of the additional curbside barriers at McLean Avenue and Gilley Road is estimated at \$5,000 to be funded by the City's 2000 Minor Capital Program.

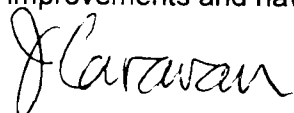
The installation of three wheelchair accessible bus stops is estimated at a total cost of \$15,000, which will also be funded by the City's 2000 Minor Capital Program. Fifty percent of this cost can potentially be recovered through TransLink's 2001 Minor Capital Improvement Program.

CONCLUSION

Staff have been working with Hamilton area residents to review traffic conditions and identify measures that can be implemented to address residents' concerns about traffic safety along the section of Westminster Highway in the Hamilton area.

To respond to the concerns raised, Richmond RCMP have now included this section of Westminster Highway in its regular speed enforcement program. Additional speed limit signage on the approach to and at McLean Park was installed to emphasize the 30 km/h speed zone. The two existing pedestrian crosswalks have been recently repainted and an extruded curb has been placed to delineate the pedestrian sidewalk area. Furthermore, an additional crosswalk has been provided on Westminster Highway at McLean Avenue. Three accessible bus stops have recently been installed to provide better access to transit facilities on this roadway.

To further enhance pedestrian safety in the area, it is proposed that three additional accessible bus stops be constructed in early 2001 and additional curbside barriers be placed along the west shoulder of Westminster Highway (Gilley Road to Highway 91 on-ramp) and at the McLean Avenue and Gilley Road intersections to enhance safety for pedestrians and drivers. Lighting upgrades and additional speed limit signs are proposed along the Westminster Highway corridor through the Hamilton area as well as "Residential Area" signs to make drivers more aware of the change from commercial to residential use. Staff further propose to monitor traffic conditions in the Hamilton area to ascertain if additional traffic safety measures are required. Staff have consulted with representatives of the Hamilton area residents on the proposed improvements and have obtained their full support.



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