



City of Richmond

Report to Committee

To: Planning Committee
From: Victor Wei, P. Eng.
Director, Transportation
Re: PROPOSED TRAFFIC CALMING MEASURES - DALLYN ROAD AREA

To Planning July 17, 2007
Date: July 2, 2007
File: 10-6450-09-01/2007-Vol 01

Staff Recommendation

- 1. That the proposed traffic calming measures for the Dallyn Road area, as described in the attached report, be forwarded to area residents for comment and indication of support by means of a survey to be mailed out immediately.
2. That subject to the support of the area residents, staff proceed with the implementation of the proposed traffic calming measures.

for: Victor Wei, P. Eng.
Director, Transportation
(4131)

FOR ORIGINATING DEPARTMENT USE ONLY
ROUTED TO: CONCURRENCE
Engineering Y [checked] N []
Fire Rescue Y [checked] N []
R.C.M.P. Y [checked] N []
CONCURRENCE OF GENERAL MANAGER
[Signature]
REVIEWED BY TAG YES [checked] NO []
REVIEWED BY CAO YES [checked] NO []

Staff Report

Origin

At the April 3, 2007 meeting of the Planning Committee, the following referral was carried:

That staff study and report back on traffic flow in the area of Dallyn Road, with a view to making improvements to address issues related to safety, parking and accessibility, similar to that carried out in the Shellmont West Area.

A number of area residents have also expressed concerns to the City regarding various traffic safety issues in the Dallyn Road area between Cambie Road and No. 5 Road and on adjacent streets through the neighbourhood. Staff conducted several traffic studies of this area in response to the concerns and have identified a solution involving the installation of traffic calming measures to reduce vehicle short-cutting through the neighbourhood. This report seeks Council endorsement to survey the neighbourhood with the recommended traffic calming measures.

Analysis

1. Traffic Calming Measures – Implementation Process

Traffic calming programs are implemented in residential neighbourhoods to control traffic volumes and traffic speeds and improve pedestrian facilities and the overall street environment. Staff typically undertakes the following process to determine the need for traffic calming devices in Richmond:

- conduct a traffic study to identify the current traffic conditions and roadway characteristics and the nature and extent of any traffic safety problems;
- determine if traffic calming measures are needed based on the results of the traffic study;
- develop traffic calming options with specific locations and measures to be implemented;
- consult with neighbourhood residents to determine the level of public support;
- estimate the costs involved for implementation of any traffic calming measures and confirm funding availability;
- seek Council approval; and
- conduct a follow-up study to monitor the performance of the traffic calming measures in the neighbourhood after the installation of the measures.

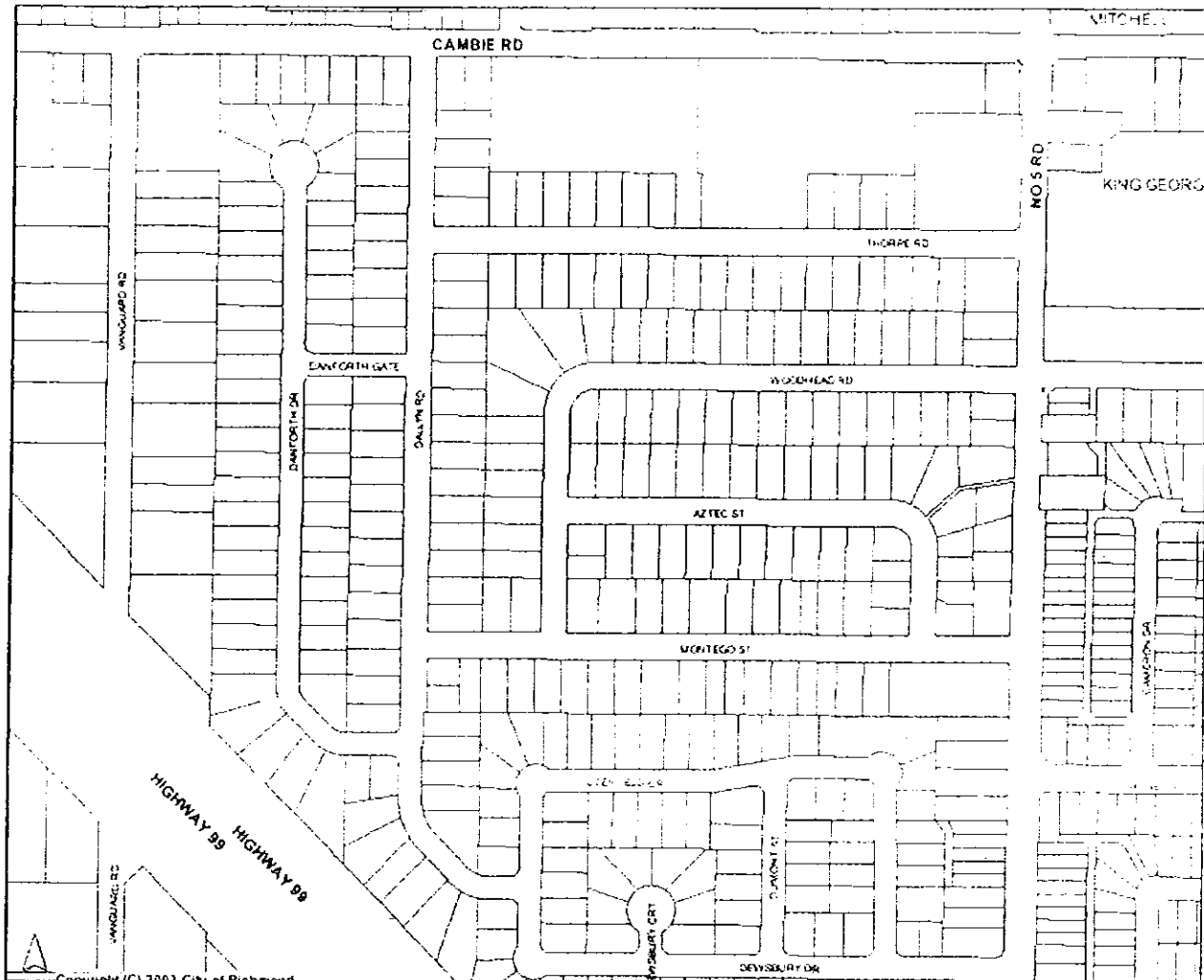
2. Traffic Study

The results of recent traffic studies of the Dallyn Road area, carried out by staff are summarized below.

General

Dallyn Road is a two-lane 6-metre wide asphalt local roadway serving a large number of residents on adjacent streets consisting mainly of single family dwellings. As shown in the following diagram, the roadway runs south off Cambie Road connecting with adjacent roadways that link to No. 5 Road. The newer roadways within this subdivision have curb and gutter and sidewalks.

Dallyn Road Area



Traffic Volume and Speed Survey

A traffic volume and speed survey using electronic counters placed in the 4300-block of Dallyn Road was conducted on March 11-18, 2007. The traffic data results indicated that traffic volumes over 30-minute intervals are relatively low with peak volumes of 32 vehicles travelling northbound occurring on Friday, March 16, 2007 at 3:00 pm and 65 vehicles travelling southbound occurring on Wednesday, March 14, 2007 at 5:00 pm. Traffic speeds were found to be above the posted speed limit, but not excessively high as the 85th percentile speed for northbound and southbound traffic was 66.9 km/h and 60.1 km/h respectively. The 85th percentile speed indicates the highest speed that 85% of the vehicles are travelling at or below. There is no school located within this subdivision and only one commercial area, which is located at No. 5 Road and Cambie Road. The unusual traffic pattern of the southbound traffic volume being twice the northbound traffic is a possible indication of short-cutting, as discussed below.

Vehicle Origin and Destination Study

A vehicle origin and destination study was conducted to identify the level of vehicle short-cutting. The study was conducted during the PM peak hour between 1630 hours and 1730 hours at the following intersections: Cambie Road/Dallyn Road; No. 5 Road/Montego Road and No. 5 Road/Dewsbury Drive. A review of the recorded licence plates found that there is evidence of short-cutting through the subdivision as drivers attempt to avoid the signalized intersection at No. 5 Road and Cambie Road (see **Table 1**). Due to limited staff resources, the intersection of No. 5 Road and Thorpe Road was not included in the origin and destination study. Therefore, the volume of short-cutting vehicles indicated in **Table 1** may be higher. The predominant direction of vehicles short-cutting is eastbound on Cambie Road, then through the Dallyn Road area to southbound No. 5 Road.

Table 1: Volume of Short-Cutting Vehicles in the PM Peak Hour

Route	Total Vehicles* PM Peak Hour	Short-Cutting Vehicles PM Peak Hour	% Short-Cutting
Dallyn Rd via Montego Rd	175	24	14 %
Dallyn Rd via Dewsbury Dr	175	9	5 %
Total		33	19 %

* Number of vehicles that originated from Cambie Road.

Vehicle Crash History

The total number of motor vehicle crashes recorded in the neighbourhood from 1996 to December 2006 is 65 with an average number of 6.5 crashes per year. Based on this traffic accident data, motor vehicle accidents are not a significant concern in this area.

3. Recommended Measures

The primary cause of vehicle short-cutting at this location is drivers avoiding the delays at the intersection of No 5 Road and Cambie Road, particularly during the PM peak period. This intersection has been identified for upgrade to include left turn bays on all four legs, however, the existing roads are built out to the property lines and thus the installation of left turn bays is pending adjacent to development that would allow the acquisition of the necessary property. As this is a long term solution to the identified problem, staff propose an interim solution whereby a median would be installed at Dallyn Road and Cambie Road to restrict right-turn movements southbound from Cambie Road to Dallyn Road. This would effectively eliminate the vehicle short-cutting through the neighbourhood as well as the associated vehicle speeding (see **Attachment 1**).

Although this measure would be the most effective at addressing the residents' concerns, it will limit their access to the subdivision. Full access would be reduced from four locations to three locations from No. 5 Road. Local residents would still have egress at the Dallyn Road and Cambie Road intersection. Staff therefore recommend that area residents be surveyed to assess their level of support for the proposed measures.

The installation of "No Turn" restriction signage only on Cambie Road at Dallyn Road was considered as an option, but without regular enforcement it would not be effective at preventing short-cutting. Similarly, staff also considered the installation of two traffic circles on Dallyn

Road at its intersections with Thorpe Road and Montego Street and the installation of one traffic circle at Dewsbury Drive and Deerfield Crescent. While traffic circles can be effective in reducing vehicle speeds and vehicle-to-vehicle conflicts, they are relatively more costly and have little effect in preventing vehicle short-cutting by drivers avoiding the No. 5 Road and Cambie Road intersection. The estimated cost for the traffic circles is approximately \$175,000 which would require accumulation over two years of funding from the Major Capital Works Program for Neighbourhood Traffic Safety Improvements and deferral of other traffic safety projects.

Financial Impact

The estimated cost for the traffic diverter median is \$35,000 with the funding source being the 2008 Major Capital Works Program - Neighbourhood Traffic Safety Improvements.

Conclusion

Staff have reviewed the current traffic conditions on Dallyn Road in response to the Planning Committee referral as well as concerns expressed by area residents regarding vehicle speeding and short-cutting through the Dallyn Road neighbourhood. Based on the results of the traffic studies conducted, staff recommend the installation of a traffic diverter median at Cambie Road and Dallyn Road to address vehicle short-cutting and enhance traffic safety in the area. Should the proposed enhancements be supported by the majority (2/3) of local residents through the results of a public survey, the traffic calming measure will be implemented in 2007. If a majority support from local residents is not obtained, staff will report back to the Planning Committee on alternative means or any necessary revisions to the proposed traffic calming measure to address this issue.



Bill Dhaliwal
Traffic Technician I
(4210)

BD:lce

Proposed Traffic Calming Plan East Cambie Area

ATTACHMENT 1

