

CITY OF BURNABY
TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC SAFETY DIVISION)

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

A. RELOCATION OF BUS STOP ON 1ST STREET SOUTH
OF 16TH AVENUE

RECOMMENDATION:

1. THAT the relocation proposed by B.C. Transit be approved.

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

R E P O R T

"At its last meeting, the Committee referred this matter back to staff after hearing delegations from B.C. Transit and the operators' union regarding the difficulty in making the turn to 1st Street from 16th Avenue. B.C. Transit's video amply illustrated the difficulty the drivers were now experiencing with new standard buses which are significantly longer and wider than the older vehicles previously used.

A letter has been sent to the resident who will lose on-street parking as a result of the ban, but at writing no response has been received. Staff are optimistic that a partial reinstatement of parking on flankage will mitigate the loss of a stall on frontage."

B. TRAFFIC CALMING

RECOMMENDATIONS:

1. THAT lane narrowing, using pavement marking, be tried on an experimental basis on the Burke Street collector between Willingdon and Patterson subject to resident concurrence.
2. THAT staff develop and test a prototype local residential street road hump program, based on resident initiative and funding.

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee.

-COPY - CITY MANAGER
- DIRECTOR ENGINEERING
- DIRECTOR PLANNING & BUILDING

R E P O R T

"With increasing traffic due to local and regional growth the traffic problems on local residential streets have grown. While traffic volumes are often perceived as the problem by residents the indication also is that vehicle speeds are a major issue. Staff have reviewed the literature regarding management of local street traffic - traffic calming. It is clear that there is a paucity of North American experience and arguably the Vancouver Metropolitan area is more advanced than most cities in the application of devices such as road closures, diverters, roundabouts and the like.

The attached discussion paper (APPENDIX 1) reviews some of the devices available particularly in a local context. Notwithstanding economic constraints that limit the opportunity for more resource intensive initiatives at this time there is scope for testing and evaluating potentially cost effective solutions. In a companion report there was a recommendation for conversion of courtesy corners to stop sign control for the area bounded by Delta, Hastings, Willingdon and Parker. This initiative has been approved by Council and will be evaluated after one year. A further study will review installation of a pavement constriction at the Urban Trail crosswalk of Union.

This report, on the basis of the attached review (APPENDIX 1), recommends definition and testing of a pavement undulation prototype program. This initiative would be modelled on our very successful lane speed bump program, which relies on resident initiative and funding. It would be important to obtain input from the emergency services during the prototype testing process.

In addition to the lane control/markings recently implemented on Parker at Holdom, we are also proposing using lane lining/edge marking along the Burke Street collector which has been the subject of some resident anxiety in recent years. There would be data gathered before and after implementation of these experimental programs including a post implementation survey of residents' satisfaction."

2. CHILD PEDESTRIAN SAFETY CROSSING RUMBLE

RECOMMENDATION:

1. THAT a copy of this report be sent to Sandi Braley, Secretary for Nelson School Parent Advisory Committee and others who have recently corresponded on this matter.

The Assistant Director Engineering, Traffic and Engineering Systems submitted the following report to the Committee:

R E P O R T

"1.0 BACKGROUND

At its meeting of 1993 January 11, Council referred correspondence from the Nelson Elementary School Advisory Council to the Committee. In arising discussion, concern was expressed regarding the policy on usage of 30 km/h zones around schools. It was resolved by Council "THAT the Traffic & Transportation Committee (Traffic Safety Division) review traffic policies and related matters concerning all schools in Burnaby." Staff are in the process of reviewing this wider direction which will be the subject of a forthcoming Council report. In the interim, this report addresses some of the particular concerns relative to Rumble Street that have been raised by recent correspondence referred to the Committee.

2.0 THE ROLE OF RUMBLE STREET

Rumble Street is presently classified a major residential collector. This classification implies greater commuter usage than would occur on a minor residential collector. Major residential collectors are a notch below secondary arterials in the road network hierarchy -- they carry one lane of traffic rather than two and are not included in the truck route network. We note however that the major road network plan for the City is under active review by the Transportation Committee at this time and there will be scope for input from residents on this issue. The deliberations on this matter will be assisted by additional traffic count data that is now being gathered.

3.0 DRIVER BEHAVIOUR

Staff are as dismayed as the correspondents by the poor behaviour displayed by an increasing minority of drivers. Unfortunately improved driver education and testing is generally outside the scope of responsibility of the City. A concern we have is that traffic engineering and enforcement is not misapplied as a second best solution. We believe the continued misuse of Rumble Street by truck traffic reflects casual disregard by truck drivers rather than a misunderstanding of the truck route component of the Street & Traffic Bylaw.

4.0 SCHOOL SAFETY

4.1 Process

As stated previously, the current policy of traffic safety is under review. Within the context of existing policy regarding traffic management at schools, safety issues are resolved through discussion with parents, the school principal and if required the RCMP and School Board staff. To maintain a consistent commitment to school safety the traffic engineering division has assigned one person to act as a school's liaison. She will be getting in touch with the correspondents and respective school principals to reinstate the dialogue process.

4.2 Crossing Protection

Again, within the context of existing policy, there is an expectation that children walk to and from school along "safe routes" as defined, primarily by schools' staff. Where these routes cross busier streets, the City works with the school to see that the appropriate crossing protection is in place. Generally the crossing protection hierarchy reflects the traffic volume on the streets with marked school crosswalks guarded by child patrols being used on the less busy streets and pedestrian signals and adult guards being used on the busiest streets. About three years ago the protection at all Burnaby schools was revisited and all the existing crosswalk signing and marking was upgraded while many new crosswalks were added. Where existing marked crosswalks are deemed to be insufficient because of traffic volumes and other factors, the current policy implies upgrading to a pedestrian signal. On this basis Council has recently approved the installation of a signal on Rumble at MacPherson (to serve the new school) and staff have proposed 1993 funding to provide signals at Rumble Street and Sussex Avenue and Rumble Street at Greenall Avenue (Suncrest School). The staff report evaluating the need for these signals will be presented to the Committee shortly.

5.0 SUMMARY

Staff are cognizant of the concerns of parents whose young children have to cross Rumble Street to go to school and will continue to work with schools and parents' groups to ensure that the appropriate crossing protection is provided. However, the concern about poor driver behaviour remains and we hope parents will join in advocating for better driver education and resources for enforcement."

D. LOUGHEED/BETA AVENUE

RECOMMENDATION:

1. THAT the Ministry of Transportation and Highways be requested to install no left hand turn signs at Lougheed and Beta Avenue for eastbound and westbound traffic during peak periods.

R E P O R T

The Traffic and Transportation Committee (Traffic Safety Division), at its meeting held on 1993 February 02, initiated a discussion regarding the continuing traffic conflicts at the Lougheed/Beta Avenue intersection.

Arising from the discussion, the Committee directed that the Ministry of Transportation and Highways be requested to install no left hand turn signs at Lougheed and Beta Avenue for eastbound and westbound traffic during peak periods.

Members:

Respectfully submitted,

Mr. D. Rankin
Mr. W.B. Bennett
Mr. M. Bloomfield
Mrs. L. Brown
Mrs. M. Canessa
Mrs. G. Evans
Mr. T. Hulme
Mr. E. Fourchalk
Mr. D. Ramsbotham
Mr. W.B. Roxburgh
Mr. R. Weston

Councillor J. Young
Chairman

Councillor D. Evans
Member

Councillor D. Lawson
Member

Councillor C. Redman
Member

TRAFFIC CALMING: A DISCUSSION PAPER

1.0 BACKGROUND

Traffic Calming is a new name for the older objective of subjugating the automobile to enhance and maintain the livability of residential areas. Rooted in European cities, the concept of neighbourhood protection from extraneous traffic has been an integral component of Burnaby's adopted transportation policies since 1979. In the early 1980's, draft terms of reference for a participatory process for implementing residential neighbourhood protection were adopted in principal by the Transportation Committee but never applied. However, the slant of traffic calming, as considered in this report, differs from the previous neighbourhood protection initiatives. Those initiatives tended to focus on limiting through traffic. This report on traffic calming is more directed toward reducing speed to enhance safety; but hopefully reducing through traffic as by-product.

This background paper briefly examines the various devices available for traffic calming in the context of Burnaby, outlines issues of cost, and outlines the potential for funding programs.

2.0 TRAFFIC CALMING MEASURES

There is an array of measures that have been used for neighbourhood traffic calming. Some are illustrated in a copy of the attached leaflet published by the U.K. government. The devices used represent a range of intervention and their applicability individually or in concert would vary from case to case. There is no question that the more draconian measures, which force changes on intra-neighbourhood travel patterns such as road closures or diverters, would require a more intensive implementation process. There would have to be a thorough data gathering exercise to confirm existing perceptions of traffic and to estimate the ramification of the changes to be deployed. Similarly the public consultation process would have to be well managed in order to allow for both meaningful and equitable participation.

Our comments with regard to some of the less draconian neighbourhood traffic calming measures are below.

TRAFFIC CALMING: A DISCUSSION PAPER (Cont.)

2.1 Traffic Circles

Traffic circles were recently installed on Lakefield Drive where they have been subject to mixed reviews by the residents. In retrospect, it would appear that this device is better suited to grid street intersections rather than T junctions as on Lakefield Drive. Both the cities of New Westminster and Vancouver have installed traffic circles in specific areas with some apparent success. Seattle uses traffic circles at individual intersections as part of its neighbourhood traffic control program. There the installation procedure is initiated by petition. Intersections are then point rated on the basis of accident history, traffic demand, and traffic speed. Low rated intersections are not considered eligible for the limited fund pool. Typically, the process takes 6-18 months. Seattle City Engineering Department views the traffic circle program an operational success, at least in part because it has reduced the demand for unwarranted 4-way stop sign control.

One of our major concerns is that traffic circles are not well understood by North American motorists and the courtesy corner ambiguity which results in right angle collisions is not necessarily alleviated. This could be mitigated by forcing traffic entering the circle to yield to traffic in the roundabout as occurs in Europe. This would result in a free flow intersection - once motorists learned - but this objective is counter to the North American rationale for installing them.

2.2 Speed Limits and Other Regulations

It would appear that the City could designate a lower speed limit on some or all residential streets. However, we do not believe that enforcement of such a measure is practicable. Indeed part of the current problem in neighbourhoods is that **existing** speed limits are not obeyed. That is why European jurisdictions which have implemented lower speeds in neighbourhoods rely on some of the other devices discussed here. Other regulatory signs such as turn prohibitions should ideally include some element of self regulation.

Stop sign control of all intersections in a residential area would seem to have considerable popular appeal. While this is not general practice in B.C., it is the norm in other urban jurisdictions. While we are concerned with deviating from local practice, we believe that traffic safety would not be adversely affected.

We continue to have concern with the misapplication of 4-way stops which are generally regarded as a notch below a traffic signal as a control device. The proliferation of 4-way stops at low volume intersections where they are not warranted by any accident history will undoubtedly, over time, erode the credibility and safety of this control.

2.3 Chicanes, Constrictors, Etc.

Chicanes, constrictors, etc. are uncommon in North American applications but are extensively used elsewhere. In particular, road constrictions at pedestrian crosswalks, including those at intersections, would appear to be a useful device both for protecting pedestrians and slowing down approaching vehicles. A significant constraint to retrofitting these type of measures is the need to accommodate existing drainage a particular problem in our climate.

2.4 Pavement Undulations

Pavement undulations or road humps have a longer profile than the shorter more abrupt speed bumps that the City currently installs in our lanes as a residential initiative. Road humps are popular in Australia and Europe but have not found a significant following in North American traffic engineering practice. We note that there is a traffic calming initiative using road humps in New Westminster. Our understanding is that the early indications are that the New Westminster initiative has been a success. We patterned our North Fraser Way pavement undulations after the design used in New Westminster except that one of the five bumps was installed at three inches high rather than four. In retrospect, we believe that the lower hump profile would have sufficed in fulfilling the objective of eliminating drag racing. Even the lower profile hump however has a significant impact on vehicle speeds, especially trucks. This is a particular concern for emergency services.

2.5 Pavement Markings

Pavement markings are generally not used on residential streets but appear to offer some opportunity for slowing down traffic on **local collector streets where the initiatives discussed above are generally not recommended.** The Burnaby local collector standards is 36 ft (11m) curb to curb normally with a painted solid centre line. This width allows for one moving lane of traffic per direction with parking on either side. With no on-street parking there is no side "friction" and moving vehicles have an exceedingly generous through lane. We have recently installed parking stall markings on Parker at Holdom to better define the moving lane but there is the possibility of edge lining the moving lane to create a similar effect. Such marking may also improve cyclist safety on collector streets.

