

ITEM 9  
MANAGER'S REPORT NO. 13  
COUNCIL MEETING 1984 02 20

RE: LETTER FROM JAMES H. GURNEY, MARLBOROUGH PARENT ADVISORY COMMITTEE  
WHICH APPEARED ON THE AGENDA FOR THE 1984 FEBRUARY 06 MEETING OF  
COUNCIL (ITEM 3b)

SCHOOL CROSSWALK ON ROYAL OAK AVENUE AT ARROW STREET FOR MARLBOROUGH SCHOOL

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Director Engineering be adopted.

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TO: MUNICIPAL MANAGER 84/02/13  
FROM: DIRECTOR ENGINEERING  
SUBJECT: SCHOOL CROSSWALK ON ROYAL OAK AVENUE AT ARROW  
STREET FOR MARLBOROUGH SCHOOL

RECOMMENDATIONS:

1. THAT the request for a pedestrian operated signal be denied; and
2. THAT a copy of this report be sent to Mr. James H. Gurney, 6269 Denbigh Avenue, Burnaby, B.C., V5H 3R6.

REPORT:

On 1984 February 06, Council lifted a report from the Traffic Safety Committee. The action taken by Council on that occasion is attached. The following report contains the additional information that was requested when Council adopted the following recommendation on February 06:

"3(a) THAT recommendation 3(a) 'THAT the request for a pedestrian operated signal be denied' be REFERRED to the Director Engineering for a report providing a priority list of locations and associated costs."

Before presenting the requested list of pedestrian signal applications that have been received over the years we feel that we should first clarify for Council some of the inaccuracies and misleading comments made in the 1984 January 27 submission to Council of Mr. James H. Gurney.

From raw count data supplied by the Engineering Department to Mr. Gurney on request he has arrived at a 3 second and 2.5 second gap between vehicles in the A.M. and P.M. periods respectively. This conclusion was evidently arrived at by dividing the number of vehicles in the 15 minute period into the number of seconds in the 15 minute period. Such a conclusion could only be valid if the vehicles were all travelling in one direction at precisely the same speed and at a uniform distance apart. Traffic on Royal Oak, however, flows in two directions. It is, therefore, quite possible that two vehicles will pass the crossing point at the same time resulting in 0 gap for two vehicles. This leaves 6 seconds to distribute to the remaining vehicles. Many vehicles are passing one another in less than 6 seconds, leaving additional time. Also, traffic travelling in the same direction tends to bunch up into platoons with headways of about 1 second. A platoon of 10 vehicles may only take 10 - 15 seconds to pass a given spot.

To validate the above comment we timed the available gaps in the A.M. 08:30 - 09:00 h period and the P.M. 15:00 - 15:25 h period. In the A.M. period we recorded 40 gaps of 8 seconds duration or longer, the longest gap being 25 seconds. In the P.M. period we recorded 32 gaps of

8 seconds or longer, the longest being 19 seconds.

The warrant established for the placement of a school patrol operated signal required: (copy attached)

1. A school patrol to operate the signal.
2. A multi-lane crossing (4 lanes or more of moving traffic).
3. Less than 15 - 8 second gaps in the 30 minute period when most children cross.

If we were to use this warrant the crossing of Royal Oak adjacent the Marlborough School would fail to meet requirements #2 and #3.

The comments made related to the number of vehicles exceeding the 50 Kmh speed, while correct, is misleading. Of the 70 vehicles noted that exceed the 50 Kmh, 77% were travelling under 60 Kmh. The three vehicles that exceeded 75 Kmh were taken from a total of 1,167 vehicles which is less than 0.3% of the total traffic, a rate not uncommon on 1 arterials.

In returning to the item related to the number of pedestrian signals that have been requested in Burnaby, we would advise that we have come up with a total of 24. Of these, 12 were primarily for school crossing locations. In arriving at an estimated cost we can only, without actually laying out each job, say that if we are to cross a two-lane facility it would cost about \$30,000 while a four-lane facility would be about \$40,000.

The first 12 locations noted are school crossings while the last 12 are general pedestrian locations: (A.P. denotes existing adult patrol).

	<u>LOCATION</u>	<u>VOLUME</u>	<u>LANES</u>	<u>ESTIMATE</u>
1.	Hastings/Hammarskjold	28,000 VPD	4	\$40,000
2.	Kingsway/12th Ave.	24,000	4	\$40,000
3.	Roy Oak/Sanders	16,800	2	\$30,000
4.	Parlier/Delta	16,000	2 A.P	\$30,000
5.	Imperial/Gilley	13,000	2	\$30,000
6.	Douglas/Spratt	12,500	2	\$30,000
7.	Cameron/Erickson	12,000	2	\$30,000
8.	Cariboo/Armstrong	12,000	3 A.P	\$35,000
9.	19th St./Stride	10,200	2	\$30,000
10.	Royal Oak/Eglinton	10,000	2	\$30,000
11.	Rumble/Patterson	9,500	2 A.P	\$30,000
12.	Duthie/Vontecito	8,500	2	\$30,000
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				\$385,000

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PEDESTRIAN ONLY

LOCATION	VOLUME	LANES	ESTIMATE
1. Canada Way/Clayton	42,000	4	\$40,000
2. Kingsway/Inman	38,000	6	\$40,000
3. Kingsway/Olive	37,000	6	\$40,000
4. Kingsway/McMurray	36,000	6	\$40,000
5. Kingsway/Denbigh	35,000	6	\$40,000
6. Hastings/Alpha	33,000	6	\$40,000
7. Kingsway/Marlborough	31,000	6	\$40,000
8. Willingdon/Price	30,000	4	\$40,000
9. 6th St./12th Ave.	21,000	2	\$30,000
10. Canada Way/Hardwick	19,500	4	\$40,000
11. Canada Way/Wayburne	19,500	4	\$40,000
12. Grange/Sussex	14,100	2	\$30,000
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			\$460,000

While the 24 locations listed are those where we have had a signal request there are no doubt many more locations that would be brought forward if we were to commence installing signals on request. It is imperative that if the municipality is to have control over the placement of traffic signals in a logical manner then such signals are going to have to be installed under the guidance of an adopted warrant system. The Canadian Manual of Uniform Traffic Control Devices has established a warrant for signals that uses a point rating system where the sum point score of numerous factors must total in the range of a positive 100 points to meet a minimum warrant. The highest volume street does not necessarily have the highest point rating.

The actual process of establishing the points is time consuming and would take two to three months to do all 24 locations noted. The subject location, however has been calculated and has a point rating of negative 27.

HB:sp  
Attach.

cc: ( ) Secretary, Traffic Safety Committee

*EE Ok*  
DIRECTOR ENGINEERING

RE: SCHOOL CROSSWALK ON ROYAL OAK AVENUE AT ARROW STREET FOR MARLBOROUGH SCHOOL

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On 1984 February 06, Council took the following action in connection with a report that had been received from the Traffic Safety Committee on the above subject:

- "1. THAT the existing marked crosswalk on Royal Oak Avenue at Arrow Street be relocated to Royal Oak Avenue at Sanders Street, north leg;
2. THAT all pavement markings and signing associated with the above crosswalk be installed at the new location;
3. (a) THAT recommendation 3(a) 'THAT the request for a pedestrian operated signal be denied' be REFERRED to the Director Engineering for a report providing a priority list of locations and associated costs;  
(b) THAT the request for a 30 kmp speed limit be denied;
4. THAT the RCMP be requested to monitor the speeds on Royal Oak Avenue, particularly during school hours, and to issue violation notices where required;
5. THAT a fully actuated traffic signal be installed on Royal Oak at Dover Street; and
6. THAT Mr. J. H. Gurney, c/o Marlborough Parent Advisory Committee, 6629 Denbigh Avenue, Burnaby, B.C., V5H 3R6 be sent a copy of this report."

LIST OF RECOMMENDATIONS OF THE COMMITTEE ON UNIFORMITY OF  
SCHOOL CROSSWALKS, SIGNS AND SIGNALS

A. School Patrol Actuated Signal - Warrant.

That the following installation guidance warrant be adopted in B.C. for the installation of school safety patrol actuated signal equipment.

1. The location must already be patrolled by a School Safety Patrol.
2. The crossing must be of a four-lane or over multi-lane street.
3. The crossing must be on a street posted with up to and including a 30 m.p.h. speed limit.
4. As a result of a traffic gap count taken specially for this purpose, it must be established that, on average, during the maximum half-hour crossing period within the 8:00 A.M. to 9:00 A.M. school crossing interval, there are less than 15 - 8 second or longer gaps. And further, that this gap must be apparent for both directions of traffic at the same time.

B. School Patrol Actuated Signal - Device.

That where the warrant outlined in Clause A above indicates the use of the device, the device must be in construction, design and operation as shown in the attached report. Further it must, after installation, only be operated by a School Safety Patrol trained in its proper use.

C. School Warning Signs - Use of Fluorescent Colors.

That until such time as this Committee has been able to pursue further the matter of the use of fluorescent colors on school warning signs, with the Canadian Council on Uniform Traffic Control Devices, no increase in the usage of fluorescent colors other than blue, be undertaken, and that the standards laid down by the Canadian Council as included in the second edition of the Manual on Uniform Traffic Control Devices for Canada dated May, 1966, as written into B.C. Order-in-Council of the Motor Vehicle Act, approved October 18, 1966, and numbered B.C. Regulation 228/66, be followed.

D. School and Playground Crosswalk Signs - Use of Pedestrian Legend.

That, until the Committee has been able to pursue further, with the Canadian Council, the matter of the use of sign numbered P-6 in the above Manual, where used as an alternative to numbered signs P-5 and P-7, this practice be not extended.

