

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC SAFETY DIVISION)

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

PEDESTRIAN CROSSING ON IMPERIAL STREET AT GRAY AVENUE

RECOMMENDATION:

1. **THAT** Council forward a copy of the attached report to Ms. Leanne Tatangelo, (Basement), 4339 Victory Street, Burnaby, B.C. V5J 1R1.

REPORT

The Traffic and Transportation Committee (Traffic Safety Division), at its meeting held on 2000 March 07, adopted the attached report responding to a request for a pedestrian signal on Imperial at Gray Avenue.

Respectfully submitted,

Councillor D. Evans
Chair

Councillor B. Der
Member

Councillor G. Begin
Member

: COPY - CITY MANAGER
- DIRECTOR ENGINEERING

City of Burnaby

INTER-OFFICE COMMUNICATION

TO: TRAFFIC SAFETY COMMITTEE DATE: 2000 02 24
FROM: ASST. DIRECTOR ENGINEERING, FILE: 55-04-01
TRAFFIC & ENGINEERING SYSTEMS
SUBJECT: PEDESTRIAN CROSSING ON
IMPERIAL STREET @ GRAY AVENUE

PURPOSE: To respond to a request for a pedestrian signal at the above intersection.

RECOMMENDATION:

1. **THAT** a copy of this report be sent to Ms. Leanne Tatangelo, (Basement), 4339 Victory Street, Burnaby

R E P O R T

1.0 INTRODUCTION

Appearing at the 1999 November 02 meeting of the Traffic Safety Committee, was a delegation by Ms Leanne Tatangelo a resident on Victory Street, Burnaby requesting a review of the existing level of crossing protection at the Imperial Street / Gray Avenue crosswalk, with a view to upgrading it to a pedestrian signal. Ms. Tatangelo related an incident where a crossing senior had almost been struck in the crosswalk by vehicles passing a van which had stopped to yield her right of way.

Subsequently Ms. Tatangelo had observed lengthy waits at the crosswalk with up to 29 cars passing through the crosswalk before one stopped to allow her to cross. She further noted that the present crosswalk was close to Maywood Elementary School as well as group home for challenged residents nearby on Gray.

The concerns raised by the delegation were referred to staff for a report.

2.0 BACKGROUND

The crossing of Imperial at Gray is a marked crosswalk and was installed to serve Maywood school. Since then the school was closed for a period and catchment boundary has changed (to Imperial) so the crosswalk is no longer as significant from the initial perspective. However, it continues to serve the wider community. The crosswalk is appropriately signed and marked. The overhead signs are backlit and these fixtures also provide down lighting of the crosswalk.

The nearest traffic signal controlled crosswalk is at the full signal controlling the Central Boulevard and Imperial junction. It is located about 170 metres to the east of Gray. The next nearest signal, to the west, is at Sussex approximately 350 meters distant.

3.0 REVIEW

Staff have observed and recorded pedestrian and vehicle volume data at this crosswalk. Initially data was collected in November of 1999, however it was felt that poor weather conditions may have the number of pedestrians observed. Hence a second study was conducted in February of 2000 under more favourable conditions. The second set of numbers was of the same order magnitude as that initially collected, leading to the conclusion that pedestrian activity at this crossing is uncharacteristically low for an established marked crosswalk.

The table below lists the observed pedestrian and vehicle volumes during peak periods, as well as the warranted crossing control devices as prescribed by Pedestrian Crossing Control Manual for British Columbia.

	Pedestrians observed (<i>adjusted</i>)	Traffic Volume	Warranted Device
7:00 - 8:00	5	1018	Unmarked Crosswalk
8:00 - 9:00	30	1415	Marked Crosswalk
3:00 - 4:00	22	1382	Marked Crosswalk
4:00 - 5:00	20	1506	Unmarked Crosswalk

We note that the pedestrian crossing protection warrant is based on a comparison between pedestrian demand and implicitly pedestrian delay. As traffic volumes increase the frequency of safe crossing opportunities decreases and delay for pedestrians increases. Accordingly we try to gather data at periods of high pedestrian demand as well as high vehicle flow. The number of pedestrians used in the warrant evaluation includes an additional weighting for children, seniors and persons with disabilities.

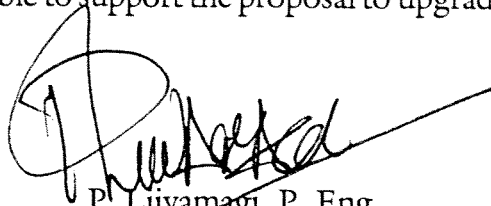
4.0 DISCUSSION AND CONCLUSION

The crosswalk warrant evaluation is based on pedestrians and the delay they encounter. The warrant assumes that the delay will be reduced as each successively higher order crossing protection increasingly forces drivers to yield to crossing pedestrians. It is noted however that devices such as “special” crosswalks and marked crosswalks do not increase the duty of the motorist to yield. While signalized crossings provide the additional impetus to the driver to stop they will, on all but the busiest roads, increase pedestrian delay.

Heavily used pedestrian signals are also disruptive to traffic signal coordination and optimization. When the desired pedestrian crossing location is close to signalized crossings/intersections there is often the opportunity for the pedestrian to divert to the nearby signal or realize the crossing opportunities derived from signal generated gaps in the traffic stream. Accordingly the pedestrian crossing control manual directs that a pedestrian signal should be used only when all of the following criteria have been met:

- a. Pedestrian volumes are high and sufficient gaps in vehicular traffic are not available to accommodate the pedestrian demand.
- b. The crosswalk location is a minimum of 200 m (400 m preferred) from an adjacent traffic control signal or special crosswalk.
- c. Traffic volumes do not warrant full vehicular signals.”

In light of the low volume of pedestrian activity observed at this crosswalk on two separate occasions, and given the proximity of existing signalized intersection both east and west of Gray Avenue, we are unable to support the proposal to upgrade this marked crosswalk to a pedestrian signal.



P. Liivamagi, P. Eng.
ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENG. SYSTEMS

AE
cc: City Manager

