

CITY OF BURNABY

C

TRAFFIC SAFETY COMMITTEE

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

**SUBJECT: HASTINGS AND FELL/ALPHA  
PEDESTRIAN ACTUATED TRAFFIC SIGNALS REVIEW**

RECOMMENDATION:

1. **THAT** Council forward a copy of this report to Mr. Brian Barker of 252 Stratford Avenue, Burnaby, BC, V5B 3X6.

REPORT

The Traffic Safety Committee, at its meeting held on 2004 May 04, received and adopted the attached report addressing concerns raised about student safety at these signalized crosswalks by Mr. Brian Barker.

Respectfully submitted,

Councillor D. Evans  
Chair

Councillor N. Volkow  
Vice Chair

Councillor L. Rankin  
Member

COPY: CITY MANAGER  
DIRECTOR ENGINEERING

City of Burnaby

INTER-OFFICE COMMUNICATION

**TO:** TRAFFIC SAFETY COMMITTEE **DATE:** 2004 03 22  
**FROM:** ASST. DIRECTOR ENGINEERING,  
TRAFFIC & ENGINEERING SYSTEMS **FILE:** 38000-03  
**SUBJECT:** HASTINGS AND FELL/ALPHA  
PEDESTRIAN ACTUATED TRAFFIC SIGNALS REVIEW  
**PURPOSE:** To address concerns raised about student safety at these signalized crosswalks by Mr. Brian Barker.

---

RECOMMENDATION:

1. **THAT** a copy of this report be forwarded to Brian Barker of 252 Stratford Avenue, Burnaby BC, V5B 3X6.

REPORT

1.0 INTRODUCTION

Mr. Brian Barker appeared as a delegation at the Traffic Safety Committee meeting of 2004 February. Mr. Barker was concerned with the vulnerability of pedestrians, particularly students, crossing Hastings at Alpha and Fell. Both of these intersections have pedestrian signals which he stated are, on occasion, ignored by speeding motorists running the red light. Mr. Barker proposed the installation of advance warning flashers citing the presence of this device on Hastings at Kensington (eastbound). Staff were asked to review and report on the concerns raised.

## 2.0 BACKGROUND

The signal hardware along Hastings was installed by the Ministry of Transportation & Highways through the Barnet Hastings People Mover (HOV) Project. Accordingly, it was relatively contemporary when downloaded to the City. Since then, the City has carried out minor upgrades including the installation of LED lamps and countdown timers to facilitate pedestrian crossings. The City has also recently installed an additional pedestrian signal on Hastings at Hythe. The corridor is relatively well endowed with pedestrian signals that facilitate crossings between full signals as indicated on the attached map.

## 3.0 REVIEW

In prior correspondence, Mr. Barker was primarily concerned traffic safety issues surrounding the Hastings and Fell traffic signal, and proposed a pedestrian overpass such as the one crossing Hastings in the vicinity of Cliff Avenue. He noted excessive delay for pedestrians waiting for the walk signal, and shortcutting traffic along streets parallel to Hastings.

### 3.1 Pedestrian Overpass

In responding to the suggestion for a pedestrian overpass, staff observed:

*“Cost implications aside, the technical application of grade separation at this location is problematic for several reasons. Ideally with a grade separated crossing the approaches would direct pedestrians to the overpass. Topography works against that objective in this instance.*

*The need to accommodate wheelchair accessibility means the ramping up at either end requires a longer travel path (almost double) for pedestrians and considerable land for construction. On the north side property acquisition would be required. Also, legally, the intersection of the two streets by definition in the BC Motor Vehicle Act creates a ‘pedestrian crosswalk’. Pedestrians wishing to avoid the extra crossing distance could and, experience at similar locations shows they likely would cross at grade.*

*The Hastings and Cliff Avenue overpass was built by the Ministry of Transportation during the HOV lane project to provide a route from the streets north of Hastings to the elementary school on the south side and an urban trail link. In that case property was available and the routing lent itself to more closely approximate desire lines for pedestrians."*

### **3.2 Advance Warning Flasher(s)**

The two signal locations noted as concerns both have straight and relatively flat (less than 2% grade) approaches which provide for excellent sight lines (well over 150m). Also, both locations have new signal heads, provided in programs co-funded by ICBC and BC Hydro, which include oversize secondary heads and multiple overhead primary heads equipped with reflective tape trimmed backboards to increase target visibility.

With good signal head visibility, the amber and all-red time should provide ample time for drivers to stop accordingly even in wet conditions. It should be noted that the amber and all-red times were recently reviewed, taking into account the approach grades, as part of the Hastings Green Wave timing plan and reflect current conditions.

The use of advance warning flashers (AWF's) are generally reserved for locations with restricted sight lines (less than 65m in a 50 km/h zone), or a high posted speed limit (70 km/h). The eastbound approach of the signal at Hastings and Kensington has a grade exceeding 7% which has the effect of increasing the stopping distance. This makes it similar to a high speed signal location and was the primary reason AWF's were included in the design.

It is further noted that the operation of pedestrian signals in BC provides motorists with an advance warning of change. At rest (most of the time), the signals flash green. After a pedestrian call, the signals turn to solid green prior to the amber phase.

### **3.3 School Zone Signing**

Mr. Barker was also troubled by the lack of signs in advance of the signals indicating the presence of students. School area signs are used in advance of a school ground that abuts a road, and neither Burnaby North or Alpha Secondary School do this. The Manual of Uniform Traffic Control Devices for Canada clearly states that school crosswalk signs must not be installed at intersections where traffic control signals have been installed. School zone and pedestrian

crossing signs are not appropriate in these cases because they do not directly relate to school zones. If installed, they could set a precedent for consideration of other school catchment areas. In the case of Hastings, the resulting warning signs could stretch from Cliff Avenue to MacDonald.

### 3.4 Pedestrian Waiting Times

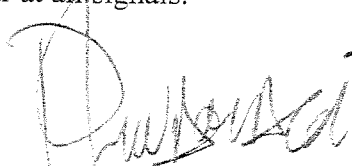
The coordinated "Green Wave" along Hastings has been implemented to minimize the stop-and-go traffic that frustrates commuting drivers, while at the same time achieves a reasonable wait time for crossing pedestrians. If the wait time is too long, pedestrians will cross against the light and if the stops are too long and frequent, the benefits of the coordination will be lost. We believe the new plan achieves a good balance to best meet everyone's needs and reduce delay.

## 4.0 CONCLUSION

Pedestrian traffic signals provide for a high level of safety, and are used frequently as a measure to assist pedestrians crossing busy multi-lane roadways. The Burnaby section of Hastings Street alone has nine such signals including the recently completed one at Hythe Avenue. Additionally, there are 8 signalized intersections which provide full vehicle and pedestrian control. The uniformly high standard of signal equipment and frequency of signal control should ensure an appropriate level of driver understanding / expectation.

In summary, the traffic signal lights provide for a more than adequate indication for drivers on Hastings Street to use caution on approach and the use of supplementary measures is not recommended.

The poor driver behaviour cited by Mr. Barker can only be corrected through education and enforcement. It is noted that there are two red light cameras on this corridor which should over time improve driver behaviour at all signals.



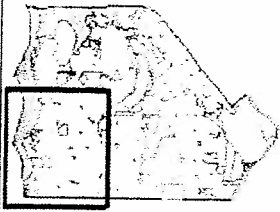
P. Liivamagi, P. Eng.  
— ASST. DIRECTOR ENGINEERING,  
TRAFFIC & ENG. SYSTEMS

MDS:  
Attach.

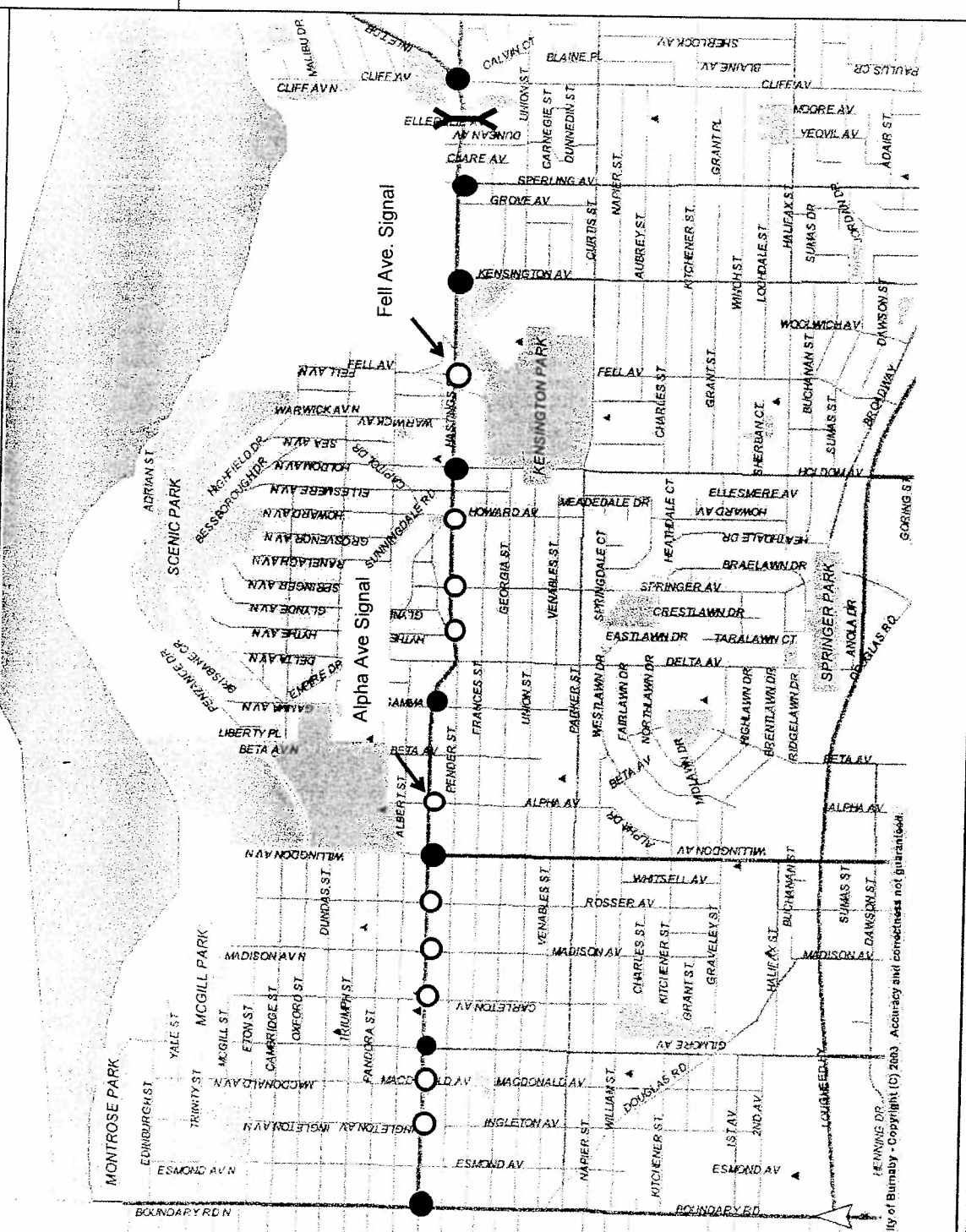
cc: City Manager

# Hastings Corridor Pedestrian Facilities

March 10, 2004



- Selected Features
- Boundary
- Places
  - Golf
  - Petice
  - File
  - Utility
  - Cemetery
  - School
  - Civic
  - Library
  - Hospital
- Signal
  - Full
  - Pedestrian
- Pedestrian Overpass
- Reads
- Local
- Collector
- Arterial
- Freeway
- Hydrology
- Parks
- PARKLAND TO BE ACQUIRED
- Other



Map Scale  
1 : 25000

This information has been gathered and assembled on the City of Burnaby's computer systems. Data provided herein is derived from a number of sources with varying levels of accuracy. The City of Burnaby disclaims all responsibility for the accuracy or completeness of information contained herein.

City of Burnaby - Copyright (c) 2003. Accuracy and completeness not guaranteed.