

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC SAFETY DIVISION)

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

**SUBJECT: PEDESTRIAN CROSSING FACILITIES ON KINGSWAY BETWEEN
PATTERSON AVENUE AND BOUNDARY ROAD**

RECOMMENDATIONS:

1. **THAT** Council approve the construction of a special pedestrian crosswalk on Kingsway at Inman Avenue.
2. **THAT** a copy of this report be sent to Mrs. R. Dhési, 1285 Waverley Avenue, Burnaby, B.C.

REPORT

The Traffic and Transportation Committee (Traffic Safety Division), at its meeting held on 2002 September 03, received and adopted the attached report responding to a written request for a pedestrian crosswalk on Kingsway in the 3900 block.

Respectfully submitted,

Councillor D. Evans
Chair

Councillor B. Der
Vice Chair

Councillor G. Begin
Member

COPY: CITY MANAGER
DIRECTOR ENGINEERING

City of Burnaby

INTER-OFFICE COMMUNICATION

TO: TRAFFIC SAFETY COMMITTEE **DATE:** 2002 08 08
FROM: ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS **FILE:** 55-04-01
SUBJECT: PEDESTRIAN CROSSING FACILITIES ON KINGSWAY BETWEEN
PATTERSON AVENUE AND BOUNDARY ROAD
PURPOSE: To respond to a written request for a pedestrian crosswalk on Kingsway in the 3900 block.

RECOMMENDATION:

1. **THAT** a special pedestrian crosswalk be installed on Kingsway at Inman Avenue.
2. **THAT** a copy of this report be sent to Mrs. R. Dhesi, 1285 Waverley Avenue, Burnaby.

R E P O R T

1.0 INTRODUCTION

Recently staff received correspondence from Mrs. R. Dhesi of 1285 Waverley Avenue, Burnaby requesting a pedestrian crosswalk on Kingsway in the 3900 block to address the needs of those wishing to access the medical buildings on the north side of Kingsway, as well as Central Park's amenities on the south side of the road.

2.0 BACKGROUND

Signalized pedestrian crossings at the Patterson Avenue and Boundary Road intersections, bracket the 750 metre stretch of Kingsway adjacent Central Park. In addition there is a pedestrian overpass integrated into the Telus building complex which provides a connection to Central Park. The overpass is located approximately 150 metres east of Boundary Road. There are "legal" unmarked crosswalks along Kingsway at Smith, Jersey and Inman. Given the width of Kingsway, the junctions on the north side of the road may not be apparent to eastbound motorists.

Transit stops which are pedestrian crossing generators are located on both sides of Kingsway at the Smith and Inman Avenue intersections. Central Park and the recreational facilities within the park also generate additional pedestrian crossings along this section of Kingsway. There are a number of senior housing complexes in the neighbourhood on the north side of Kingsway located in proximity to the Inman Avenue intersection.

The attached plan, Exhibit 1, illustrates this reach of Kingsway

3.0 REVIEW AND EVALUATION

Staff has reviewed the pedestrian collision history for this section of Kingsway. Over the 10 year period from 1992 to 2001, a total of 10 pedestrian/vehicle incidents have been reported to the police, including a pedestrian fatality. The collisions on record have been listed in the table below.

Table 1 Pedestrian Collision History	
Incident Location on Kingsway @	Incident Date
Patterson Avenue	February 1994 November 1994
Inman Avenue	July 1993 January 1999 (Fatality) February 1999 July 2001
Jersey Avenue	November 1992 October 1994 November 1995
Smith Avenue	April 1997

Staff has also observed and recorded the number of individuals crossing Kingsway between Patterson and Smith Avenue's on weekdays. This data has been summarized in the table below.

Table 2. Weekday Count of Pedestrians Crossing Kingsway

Note: EAU, "Equivalent Adult Unit" total weights children, Seniors Persons with disabilities.

Time of Day	Observation Location							
	Patterson - Jersey				Jersey - Smith			
	Adult	Senior	Children	EAU	Adult	Senior	Children	EAU
7:00 - 8:00	9	0	0	9	4	0	0	4
8:00 - 9:00	10	3	2	19	3	4	0	9
9:00 - 10:00	14	3	0	19	13	1	0	15
10:00 - 11:00	10	5	0	18	2	1	0	4
11:00 - 12:00	5	5	0	13	4	0	0	4
12:00 - 1:00	6	4	0	12	9	0	0	9
1:00 - 2:00	9	2	1	14	7	0	0	7
2:00 - 3:00	8	1	0	10	8	0	0	8
3:00 - 4:00	16	1	1	20	10	1	1	14
4:00 - 5:00	14	3	1	21	11	0	0	11
5:00 - 6:00	2	0	0	2	7	0	0	7

Of the two areas observed, the section of Kingsway between Patterson and Jersey Avenue's was the more popular crossing location with a consistent level of activity throughout the day. The majority of pedestrians in this reach crossed in the vicinity of Inman. We note that the pedestrian crossing demand correlates with vehicle travel demand, with coincident morning and afternoon peaks, the latter being the more significant.

We have compared the weighted hourly totals of observed pedestrians (EAUs) with the evaluation warrant of the Pedestrian Crossing Control Manual. If we assume that the majority of pedestrians (say 2/3) were attracted to a defined crossing then there is sufficient activity during three hours of observation to justify a marked crosswalk. It should also be noted that if we assume that **all** pedestrians were drawn to a single crossing the warrant threshold for a "special" crosswalk would be approached but not exceeded during the 3:00 to 4:00 p.m. period. Peak hour pedestrian demand would need to double before the warrant analysis mandated a Pedestrian signal.

4.0 DISCUSSION

The observed pedestrian activity on Kingsway satisfies the minimum requirements for a marked crosswalk indicating a need for an improvement to pedestrian crossing control. Both on-site observation and collision history indicate that crossing improvements should be focussed at Inman at this time. For a multilane roadway, such as Kingsway, the application standard indicates the requirement for overhead signing, which in accordance with City practice, would be back lighted with crosswalk down lighting to enhance visibility during hours of darkness. With this requirement the additional cost of upgrading control to a "special crosswalk" (pedestrian activated flashing amber lighting on the overhead signs) is only marginal. Given the configuration of the intersection at Inman, the heavy traffic on Kingsway and the potentially significant latent demand for an improved crossing, staff recommends implementation of a "special crosswalk" from the inception.

The crosswalk infrastructure would be designed to allow for cost-effective conversion to a Pedestrian signal in the future if required. Staff are further reviewing the feasibility and desirability of constructing a short central median pedestrian refuge at the crosswalk. This would allow pedestrians to cross the road in two stages. The preliminary indication is that a median refuge could be developed without compromising Kingsway through lane width or capacity. There would be some loss of on street parking but the demand in this stretch of Kingsway does not approach the available supply of spaces

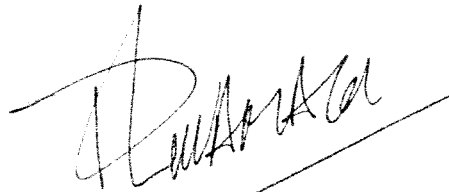
5.0 COST

The cost of installing the recommended special crosswalk is estimated to be \$65,000. If feasible, the estimated cost of the central median would be about \$7500, with the bulk of the cost being consumed by removal and reinstatement of road markings. The project should be eligible for cost sharing with Translink under the MRN Minor Capital Program. A grant from ICBC would also be sought. Capital budgeting constraints may push implementation to 2004.

6.0 CONCLUSION

Based on the level of pedestrian activity occurring along Kingsway between Patterson and Jersey Avenues, there is a warrant for installation of a pedestrian crosswalk which would be best sited at Inman. There is the opportunity to further enhance crossing safety by equipping the crossing as a special crosswalk at marginal extra cost. The development of a pedestrian refuge median appears to be feasible but further validation through a more detailed design is required.

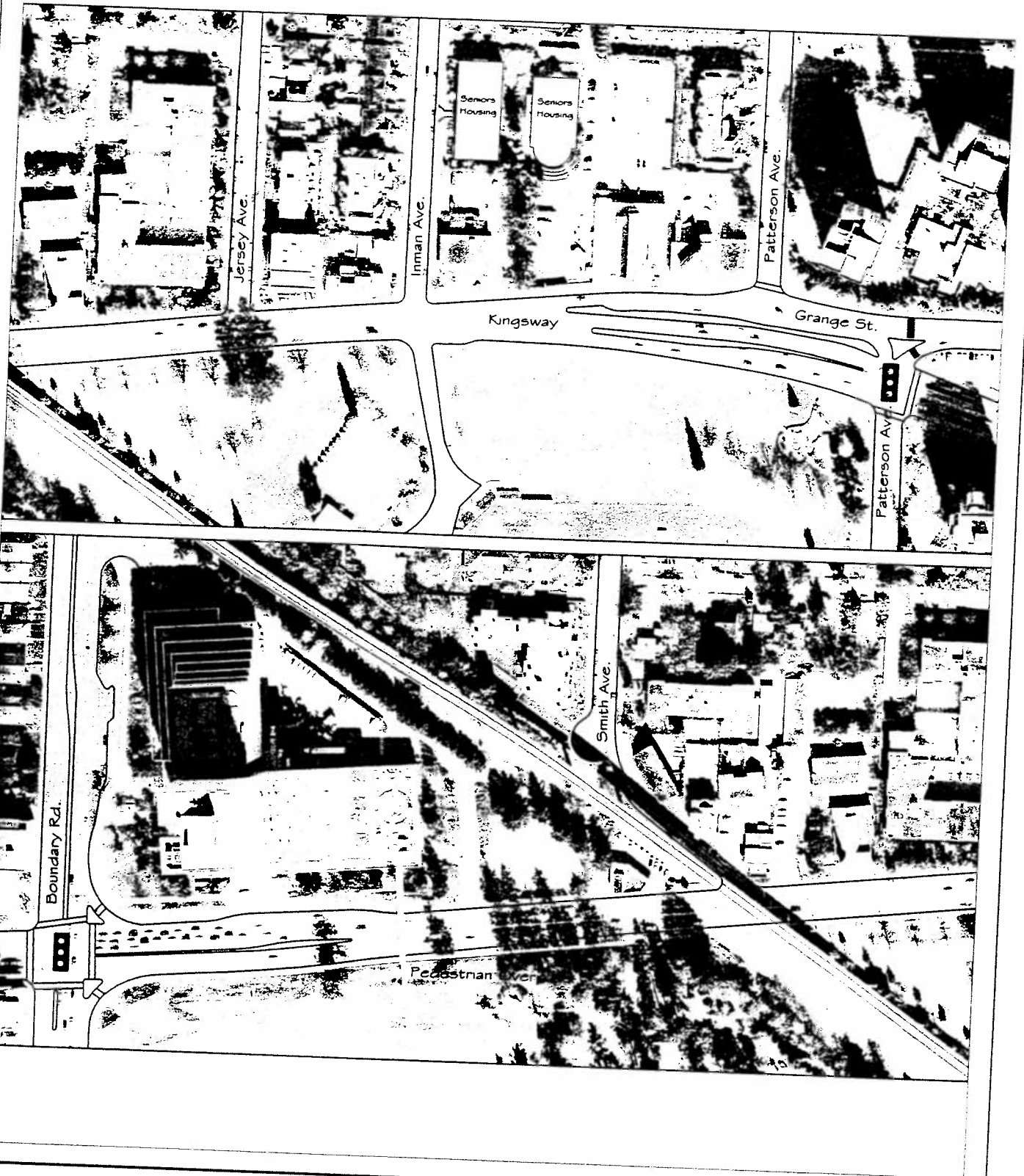
Initial estimates suggest a cost of \$72,500 to construct the special crosswalk and median refuge at Inman. If approved, staff would incorporate this project into the Capital Budget process with a view to cost sharing with Translink and ICBC.



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

AE:su
Attachment

cc: City Manager



City of
Burnaby
ENGINEERING DEPARTMENT

Exhibit #1

Kingsway (Boundary - Patterson)

DRAWN BY: A.K.E

SCALE: N.T.S.

APPRV'D BY: P.L.

DATE: 02/08/01

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