



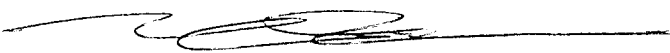
City of Richmond

Report to Committee

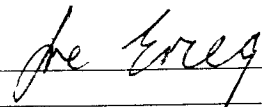
To: Public Works and Transportation Committee **Date:** December 7, 2004
From: Victor Wei, P. Eng.
Acting Director, Transportation **File:** 10-6450-17-02/2004-Vol 01
Re: **FOLLOW-UP REPORT - PROPOSED INSTALLATION OF A SPECIAL CROSSWALK AT 8500 BLOCK OF NO. 5 ROAD**

Staff Recommendation

1. That the installation of a special crosswalk at the 8500 block of No. 5 Road, as described in the attached report, be approved for implementation.
2. That the source of funding for the above crosswalk improvement be the 2003 Transit Plan Infrastructure Improvements Project.
3. That "50 km/h" speed limit signs be posted on No. 5 Road between Steveston Highway and Westminster Highway to remind motorists of the speed limit on No. 5 Road and to discourage vehicle speeding.


Victor Wei, P. Eng.
Acting Director, Transportation
(4131)

Att. 3

| FOR ORIGINATING DIVISION USE ONLY | | |
|--|---|--------------------------------|
| CONCURRENCE OF GENERAL MANAGER | | |
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| REVIEWED BY TAG | YES <input checked="" type="checkbox"/> DW | NO <input type="checkbox"/> |
| REVIEWED BY CAO | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/> |

Staff Report

Origin

At the November 17, 2004 meeting of the Public Works and Transportation Committee, the following staff recommendation was approved:

1. *That the installation of a special crosswalk at the intersection of No. 5 Road and Kingsbridge Drive be approved for implementation with construction to commence in 2004."*
2. *That speed limit signs be posted on No. 5 Road, indicating that the speed limit is 50 km/hr.*

As a result of further consultation with the local community and stakeholders, this report recommends a revised location for the proposed crosswalk.

Analysis

Staff originally recommended (staff report dated October 29, 2004) that a special crosswalk be located at the intersection of No. 5 Road and Kingsbridge Drive given industry guidelines that prefer crosswalk placements at intersections rather than at mid-block locations, and the prevailing traffic patterns and destinations (Attachment 1). This recommendation was endorsed by the Public Works and Transportation Committee at its November 17, 2004 meeting (Attachment 2). However, subsequent to this meeting, representatives of the India Cultural Centre of Canada requested further review of the proposed location.

On November 22, 2004, staff met on-site with representatives of the India Cultural Centre of Canada and the Shia Muslim Community of BC to discuss potential alternative locations for the proposed special crosswalk. Staff and the representatives mutually agreed on a revised location approximately mid-way between Kingsbridge Drive and Blundell Road (Attachment 3).

This new proposed location would still serve the majority of pedestrians crossing No. 5 Road to and from the various places of worship, passengers using the public transit stops (there are bus stops on either side of the proposed crosswalk location) and users of the nearby Mylora golf centre. This crosswalk location would also meet the traffic engineering design guidelines and the spacing requirements for future proposed traffic signals on No. 5 Road. The revised proposed crosswalk location is also well within walking distance to the Indian Cultural Centre.

Financial Impact

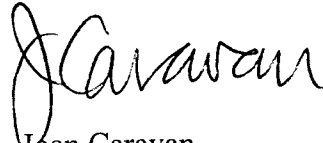
The cost to install the proposed special crosswalk at the 8500 block of No.5 Road is estimated at \$35,000. The proposed funding source for this project is the Transit Plan Infrastructure Improvements Project (Account 40200) within the City's 2003 Capital Program, as the proposed crosswalk would also benefit transit users in the area.

Conclusion

Based on staff's assessment of the traffic conditions, pedestrian activity and local destinations along No. 5 Road between Blundell Road and Williams Road as well as further consultation with area stakeholders, staff recommend that in order to improve community traffic safety in this area, a special crosswalk be installed at the revised location in the 8500 block of No.5 Road.



Robert Gilchrist
Traffic Supervisor
(4030)



Joan Caravan
Transportation Planner
(4035)

RG:lce



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** October 29, 2004
From: Victor Wei, P. Eng. **File:** 10-6450-17-02/2004-Vol
 Acting Director, Transportation 01
Re: **PROPOSED INSTALLATION OF A SPECIAL CROSSWALK AT**
 NO. 5 ROAD/KINGSBRIDGE DRIVE INTERSECTION

Staff Recommendation

1. That the installation of a special crosswalk at the intersection of No. 5 Road and Kingsbridge Drive be approved for implementation with construction to commence in 2004.
2. That funding for this project come from the 2003 Transit-Related Road Infrastructure Program (TRRIP) account.

Victor Wei, P. Eng.
 Acting Director, Transportation
 (4131)

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| FOR ORIGINATING DIVISION USE ONLY | | |
| CONCURRENCE OF GENERAL MANAGER | | |
| <i>me Erics</i> | | |
| REVIEWED BY TAG | YES DW <input checked="" type="checkbox"/> | NO <input type="checkbox"/> |
| REVIEWED BY CAO | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/> |

Staff Report

Origin

At the Community Safety Committee meeting held on October 13, 2004, the following referral was made to staff:

"That staff investigate the traffic situation on No. 5 Road, including the intersection of No. 5 Road and King Road and other areas, and report to the Committee with recommendations on options which could be implemented in terms of pedestrian signals or other measures to ensure community safety and whether funding would be available through the City, or if it would be feasible to seek community partners as a source of funding."

This report addresses these referral items and provides recommendations with respect to traffic-related measures to improve community safety in the area of No. 5 Road and King Road.

Analysis

1. Existing Road Conditions

No. 5 Road between Williams Road and Blundell Road is a four lane arterial road, 14 metres wide with two lanes northbound and two lanes southbound. There are concrete sidewalks and street lighting on both sides of the roadway. The nearest signalized intersections are at Williams Road and at Blundell Road. These two intersections are currently the only marked crosswalks along this section of No. 5 Road and are approximately one mile apart.

2. Transit Service

This section of No. 5 Road is served by the #405 bus service, which runs between Riverside Industrial Park and the Ironwood area to S.E. Marine Drive at Knight Street in Vancouver via Richmond Centre. This transit service operates seven days per week generally on a 30-minute frequency during weekday peak periods and a 60-minute frequency during mid-days and weekends. The majority of the residential units in the area are located on the west side of No. 5 Road, from Kingsbridge Drive south to Steveston Highway.

3. Traffic Survey Results

Most recently, staff conducted traffic counts in the 8700 block of No. 5 Road for the period October 22-29, 2004. The traffic count was undertaken to determine the speed and volume of traffic using this section of No. 5 Road as part of the warrant process for determining the establishment of a crosswalk. The traffic survey results indicate that the 85th percentile speed (the speed at which 85% of the free-flowing vehicles are traveling at or below) was 74 km/h for northbound traffic and 72 km/h for southbound traffic. The posted speed limit on No. 5 Road is 50 km/h. Average daily traffic volumes were 7,755 vehicle travelling northbound and 7,940 vehicles travelling southbound, which are typical traffic volumes for an arterial road.

4. Crosswalk Warrants

Staff conducted two warrant reviews for the installation of a crosswalk in this area whereby pedestrian counts were taken during periods that were expected to have higher levels of pedestrian activity, based on consultation with places of worship in the area.

- November 17, 2002 – Pedestrian counts were conducted during the morning (5:30 a.m. - 6:30 a.m.) and afternoon (5:30 p.m. - 6:30 p.m.) peak hours. Two pedestrians crossed No. 5 Road at Kingsbridge Drive during the afternoon peak hour of the review. Based on the data gathered, it was determined that the installation of a crosswalk was unwarranted at that time.
- October 31, 2004 – Pedestrian counts were conducted during the morning (9:30 a.m. - 10:30 a.m.) and afternoon (1:30 p.m. - 2:30 p.m.) peak hours on a Sunday. One pedestrian crossed in each of the morning and afternoon periods.

Based on the warrant reviews, the existing pedestrian volumes alone do not technically warrant the installation of a crosswalk. However, given the traffic speeds and volumes in this area and the fact that there is no marked crosswalk for a distance of 800 metres on this arterial roadway, provision for a crosswalk is anticipated to improve pedestrian safety. Staff therefore recommends that a pedestrian crossing be installed on No. 5 Road at Kingsbridge Drive.

5. Proposed Pedestrian Crossing Facility

Traffic control signs and signals for crosswalks are installed for pedestrian and vehicle safety and traffic flow control. A hierarchy of devices exists to enable an appropriate match between the control device and local conditions to achieve reasonable 24-hour traffic control for varying levels of roadway activity. The installation of a signal device that enforces greater control than required over local traffic conditions contributes to driver and pedestrian frustration and ultimately increased disobedience of the device. Matching an appropriate control device to local conditions provides improved traffic safety and equitable access for all users of the roadway. Staff examined two alternative pedestrian crossing options as well as the potential location of the facility in order to improve crossing opportunities of No. 5 Road in this area.

5.1 Pedestrian-Actuated Signal

A pedestrian-activated traffic signal typically effects greater driver compliance than a crosswalk with pedestrian-activated overhead flashing amber lights due to its use of a red light to stop motorists. However, the blanket application of pedestrian-activated signals on all arterial roads may not necessarily achieve the best balance between the needs of all road users. Given existing traffic conditions along this section of No. 5 Road and the relatively low pedestrian volumes, staff deems the use of a pedestrian signal as excessive. Indeed, the installation of unwarranted traffic control devices could result in poor compliance and negative traffic safety consequences.

5.2 Special Crosswalk

Special crosswalks refer to those facilities with overhead internally lit signs with downward lighting and pedestrian-actuated flashing amber beacons. These crosswalks are less disruptive to traffic flows and render pedestrians more visible to motorists than shoulder-mounted controls, particularly at night. In September 2001, Council approved a multi-year Arterial Crosswalk Upgrade Program to upgrade existing pedestrian crosswalks on arterial roads to "special

crosswalks." Consistent with this policy, staff have installed special crosswalks when new pedestrian crossing facilities are required on arterial roads (e.g., 4400-block of Hazelbridge Way between Parker Place and Fairchild Square).

Poor visibility due to inadequate lighting and driver inattention are two of the most frequently reported contributing factors to pedestrian-related traffic accidents. The greatest advantage of special crosswalks is that the entire crossing is well lit 24-hours a day, thus making pedestrians much more visible to drivers. The flashing amber lights also serve as an active device to alert drivers that pedestrians are occupying the crosswalk. Staff therefore recommend installation of a special crosswalk on No. 5 Road to improve pedestrian safety in the area.

5.3 Pedestrian Crossing Location

Per industry guidelines, the preferred placement of crosswalks is at intersections rather than at mid-block locations as motorists expect pedestrians at intersections, not at mid-block locations. Given this parameter and upon review of the traffic patterns and locations of the destinations in the area, staff recommend that a special crosswalk be installed at the intersection of No. 5 Road and Kingsbridge Drive (see Attachment 1).

The proposed location would serve the majority of pedestrians crossing No. 5 Road to and from the various places of worship, public transit stops (there are bus stops on either side of the intersection) and the nearby Mylora golf centre. The location of this proposed crosswalk would be situated mid point between the signalized intersections at Williams Road and Blundell Road, which are currently the only two other crosswalks on this section of No. 5 Road. The proposed location is within walking distance to the Indian Cultural Centre (190 metres) and installing a crosswalk further north of the proposed location would decrease the likelihood of its use by area residents to access public transit stops.

Financial Impact

The installation of a special crosswalk at the intersection of No.5 Road and Kingsbridge Drive is estimated to cost \$35,000. The proposed funding source for this project is the 2003 Transit-Related Road Infrastructure Program (TRRIP), as the proposed crosswalk would also benefit transit users in the area.

Conclusion

Based on staff's assessment of the traffic conditions, pedestrian activity and local destinations along No. 5 Road between Blundell Road and Williams Road, staff recommend that a special crosswalk be installed at the intersection of No.5 Road and Kingsbridge Drive to improve community traffic safety.



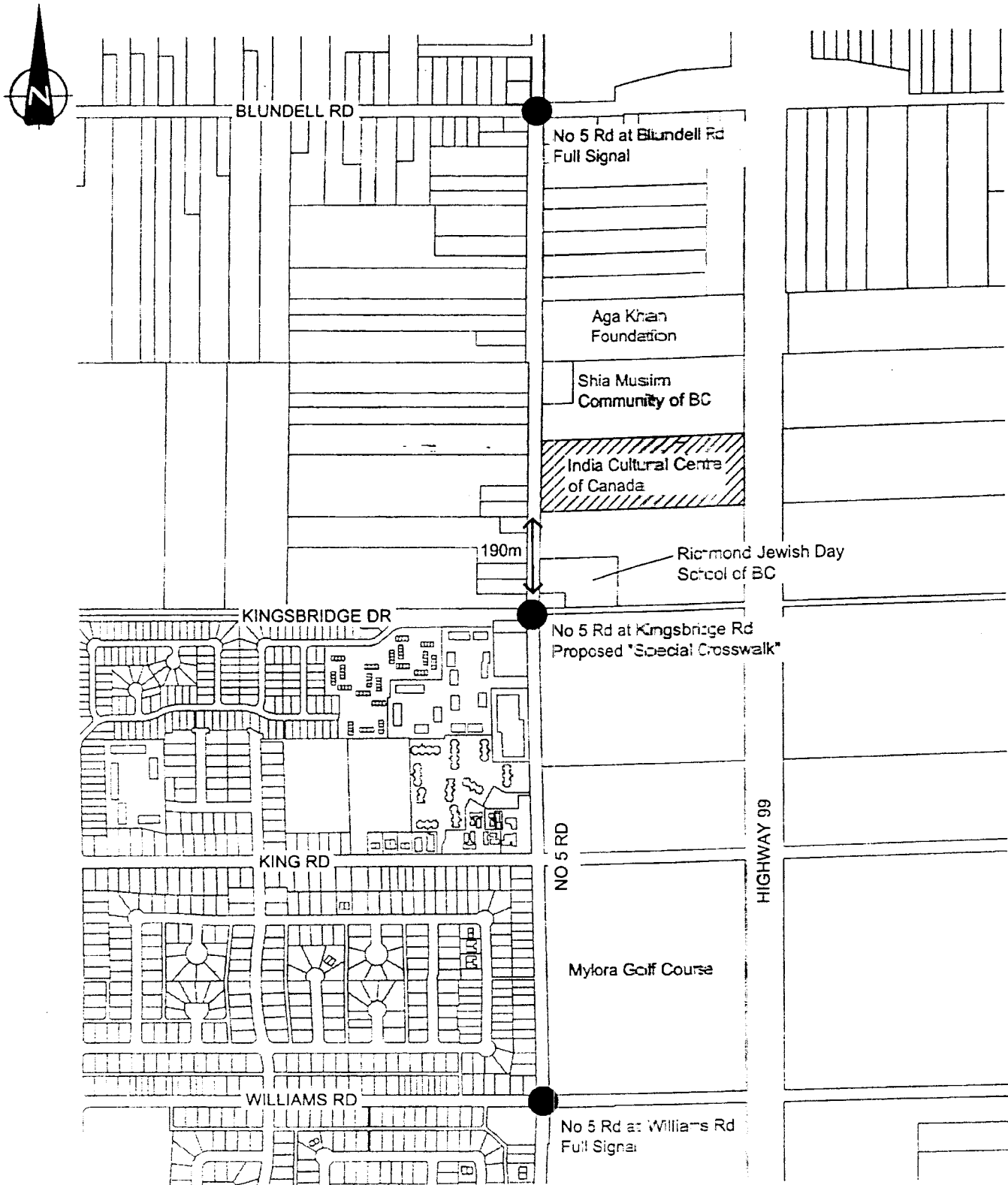
Robert Gilchrist
Traffic Supervisor
(4030)



(4035)

Joan Caravan
Transportation Planner
(4035)

RG:lce



Proposed "Special Crosswalk" at
No. 5 Road and Kingsbridge Road

Wednesday, November 17th, 2004

URBAN DEVELOPMENT DIVISION

4. **PROPOSED INSTALLATION OF A SPECIAL CROSSWALK AT NO. 5 ROAD/KINGSBRIDGE DRIVE INTERSECTION**
(Report: Oct. 29/04, File No.: 10-6450-17-02/2004-Vol 01) (REDMS No. 1350027)

The Acting Director, Transportation, Victor Wei, accompanied by Traffic Supervisor, Bob Gilchrist, indicated that a funding source for the entire cost of the project had been obtained.

Discussion then ensued among Committee members and staff on the feasibility of relocating the proposed sidewalk 190 metres north to the area of the India Cultural Centre of Canada. Information was provided that based on traffic engineering standards, the crosswalk should be located first and foremost at an intersection because motorists were expecting pedestrian crossings to be at intersections and not mid-block. Secondly, by having the hardware at the intersection, in the future, should the City find it was necessary to upgrade the pedestrian signal to a full system, the change could be readily undertaken. However, if the pedestrian signal was moved to mid-block and it was found necessary to install a traffic signal at Kingsbridge Road, it would be even more difficult to do. Mr. Wei further advised that the location of the pedestrian walkway at Kingsbridge Road would allow the City to incorporate a signalized crosswalk at the intersection.

Mr. Wei then provided information on the type of crosswalk being installed, advising that because the criteria did not warrant a stop light, and because motorists would be required to wait until the light had turned green before proceeding, staff were recommending a flashing yellow light. He stated that this type of system would allow motorists to proceed at their discretion once the pedestrian had crossed the road, and would be more cost efficient and less expensive to install.

In response to questions Mr. Wei advised that (i) the width of No. 5 Road was the same width of No. 3 Road; (ii) the cost of installing a flashing yellow light would be \$35,000; and (iii) while it would be possible to have a pedestrian signal in front of the India Cultural Centre, it was not recommended because the closeness with the Kingsbridge Road and No. 5 Road system could confuse motorists.

Reference was made to the referral to staff which requested that staff also consider other mitigating issues on No. 5 Road. In response, advice was given that as part of the standard crosswalk design, advance warning signs would be posted to alert motorists to stop when occupied. In addition, advice was given that 24 hour down-lighting would be installed to make the crosswalk visible at all times of the day and night. Mr. Wei further advised that staff were working with the RCMP about regular traffic enforcement to ensure that motorists were aware of a constant police presence.

4.

Public Works & Transportation Committee

Wednesday, November 17th, 2004

At the request of the Chair, Mr. Wei provided information on the meaning of the term '85th percentile speed was 74 km/h', stating that this meant that 85% of the free-flowing vehicles were travelling at or below 74 km/h. He stated that staff had found that speeding was an issue as most motorists were travelling 24 or 25 km/h over the speed limit.

Mr. Balwant Sanghara, representing the India Cultural Centre, voiced concern about the lack of consultation between the Cultural Centre and the City about the matter. He also expressed concern about the proposed recommendation, indicating that the proposed location of the crosswalk would not help those people wishing to cross No. 5 Road at the gates of the temple. He questioned when Francis Road would be extended east to No. 5 Road, and commented on the need for enforcement to deal with motorists speeding along No. 5 Road. Mr. Sanghara also suggested that residents living on or close to Blundell Road would not walk all the way down to Kingsbridge Road to use the crosswalk and then back up 190 metres to reach the Centre. He indicated that the India Cultural Centre would be willing to pay for some type of crosswalk between the India Cultural Centre and the adjacent Mosque, and asked that consideration be given to relocating the pedestrian crosswalk northward.

At the request of the Chair, Mr. Wei provided the following information, in response to Mr. Sanghara's concerns and questions from the Chair;

- attempts were made to contact a representative of the India Cultural Centre without success
- staff did not recommend a mid-block location for the crosswalk, however, if Committee so directed, a crosswalk could be located at the Cultural Centre
- there were no plans to extend Francis Road to No. 5 Road
- staff were working with the RCMP to develop a regular enforcement program
- the City would always welcome financial contributions, however staff would still have to ensure that the right type of equipment was installed at the appropriate location
- installation of a full signal system in front of the Cultural Centre 200 metres away from Kingsbridge Road would preclude the installation of a system at the Kingsbridge Road and No. 5 Road intersection
- a full signal system would not provide 24 hour down-lighting; street lights would provide the only light during evening hours
- it was staff's opinion that the installation of an additional crosswalk in front of the India Cultural Centre as well as at the Kingsbridge Road and No. 5 Road intersection would be 'overkill' as the pedestrian figures were relatively low.

Public Works & Transportation Committee

Wednesday, November 17th, 2004

Discussion ensued among Committee members and the delegation, during which in answer to questions, Mr. Sanghara indicated that he would like a crosswalk installed between the Mosque and the India Cultural Centre. In concluding his presentation, Mr. Sanghara asked that the India Cultural Centre be consulted on any future issues, and reiterated that the Centre would be willing to provide a financial contribution to install a flashing light in front of the Cultural Centre. He noted that the power poles were already in place.

Ms. Margaret Caplett, of #61 – 11751 King Road, spoke in support of a pedestrian crosswalk located somewhere between Blundell Road and Williams Road. She expressed the view that people would utilize the crosswalk if it was available. Ms. Caplett also spoke about the increase in speed of motorists using No. 5 Road.

With reference to the motorists speeding along No. 5 Road, Mr. Wei suggested that speed limit signs could be posted. As a result, the following motion was introduced:

It was moved and seconded

That speed limit signs be posted on No. 5 Road, indicating that the speed limit is 50 k/mh.

CARRIED

It was moved and seconded

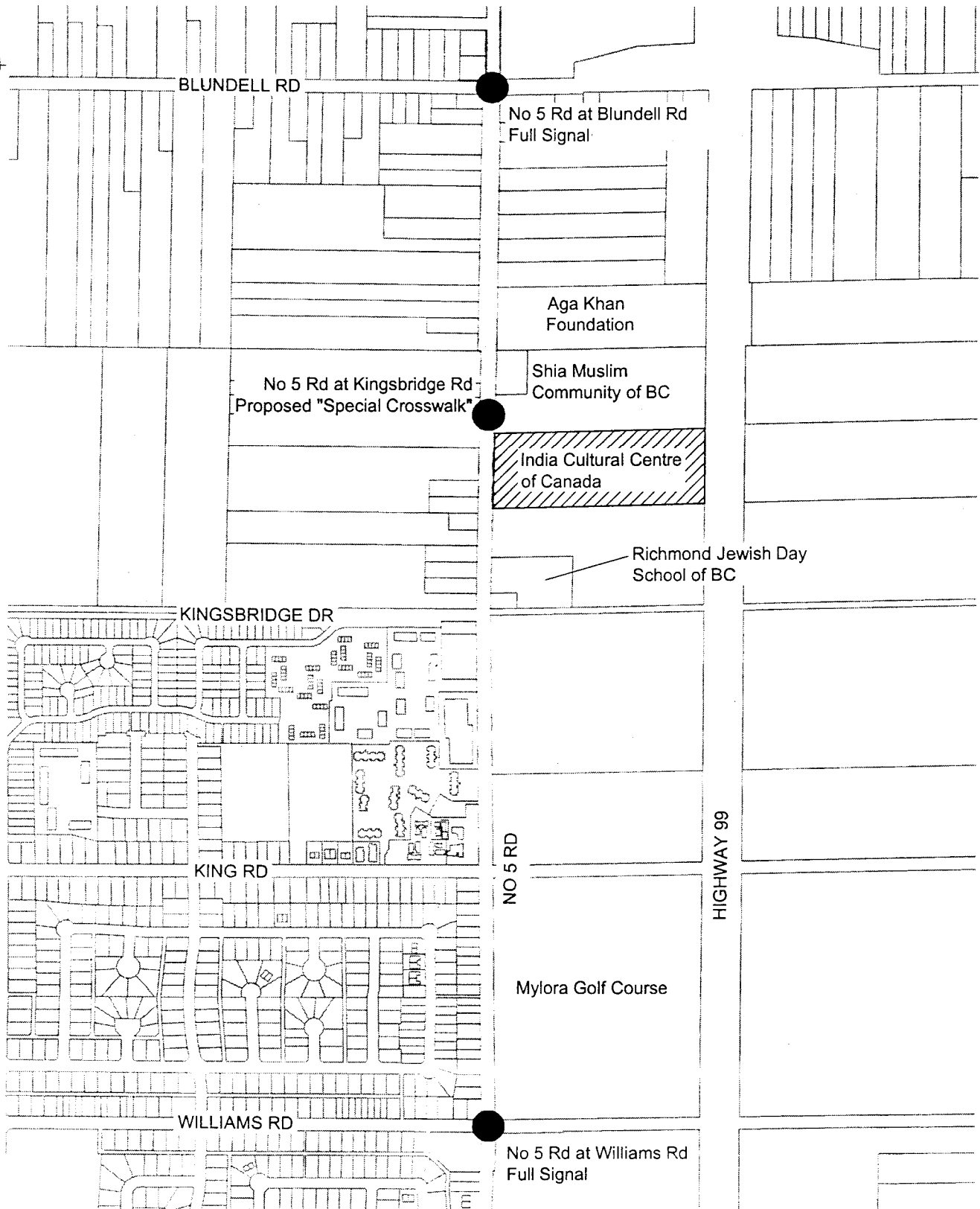
(1) *That the installation of a special crosswalk at the intersection of No. 5 Road and Kingsbridge Drive be approved for implementation with construction to commence in 2004.*

(2) *That funding for this project come from the 2003 Transit-Related Road Infrastructure Program (TRRIP) account.*

The question on the motion was not called, as Cllr. Barnes suggested that the matter should be referred to staff to consult with other property owners in the area as well as the India Cultural Centre. As well, she asked that Mr. Wei determine if power was available.

The Chair indicated that he respected the comments made by Mr. Sanghara, however, he expressed concern about the possible confusion which could result from not following the 'best advice of the traffic professionals'. Cllr. Howard stated that in combination with speed limit signs and increased surveillance, the crosswalk in its proposed location would work best for the community in the long run.

The question on the motion was then called, and it was **CARRIED** with Cllr. Barnes opposed.



Proposed "Special Crosswalk" at
No. 5 Road and Kingsbridge Road