



CITY OF RICHMOND

REPORT TO COMMITTEE

*To Public Works & Transportation - Oct 3, 20*

TO: Public Works and Transportation Committee

DATE: September 17, 2001

FROM: Gordon Chan, P. Eng.  
Manager, Transportation

FILE: 6450-1701 09

RE: **WESTMINSTER HIGHWAY BETWEEN NO. 3 ROAD AND MINORU BOULEVARD  
- PEDESTRIAN AND TRAFFIC SAFETY ENHANCEMENTS**

STAFF RECOMMENDATION

1. That the following pedestrian and traffic safety measures on Westminster Highway between No. 3 Road and Minoru Boulevard, as described in the attached report, be approved for implementation by March 2002:
  - (a) installation of an overhead illuminated pedestrian crossing with amber flashers and pedestrian-activated push button on the west side of the Richmond Centre entrance;
  - (b) extension of the existing westbound left-turn bay at Minoru Boulevard; and
  - (c) closure of the existing mid-block eastbound left-turn bay at 7831 Westminster Highway by restoring the centre median with landscaping planters.
  
2. That the above recommended pedestrian and traffic safety enhancements be funded jointly by ICBC as part of the *2001 Traffic Safety Improvement Program* and the City through the *2001 Traffic Signal Installation Program*.

Gordon Chan, P. Eng.  
Director, Transportation

Att. 1

FOR ORIGINATING DIVISION USE ONLY		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
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## STAFF REPORT

### ORIGIN

The *City Centre Transportation Plan* (adopted in 1997) proposes a number of actions to enhance pedestrian environment in Richmond's downtown streets, including the installation of pedestrian crosswalks on major roads and a reduction in driveway crossings. Westminster Highway between No. 3 Road and Minoru Boulevard has been identified as one of the locations for pedestrian improvements. Many pedestrians currently "jaywalk" between Richmond Centre and other high traffic generators (i.e., London Plaza) on the north side of Westminster Highway. These actions present safety hazards to both the jaywalkers and motorists on this road.

Staff have reviewed the situation and conclude that a formalized pedestrian crosswalk is required at this location. This report presents the results of staff's review and proposes a set of pedestrian and traffic safety improvements for this section of Westminster Highway.

### ANALYSIS

#### **1. Existing Conditions**

Westminster Highway is classified as a four-lane major arterial road with a 50 km/h posted speed and is part of the Regional Major Road Network (MRN). The section of Westminster Highway between No. 3 Road and Minoru Boulevard is one of the busiest downtown streets within the City Centre area. Similar to No. 3 Road, this section of Westminster Highway not only is a major commuter corridor (part of the MRN) but also is a critical pedestrian link for the downtown businesses. Richmond Centre and London Plaza are examples of businesses immediately fronting on this section of Westminster Highway.

According to the *City Centre Transportation Plan*, this section of Westminster Highway is identified as one of the locations for pedestrian improvements. This area of Westminster Highway as well as No. 3 Road are concentrated with major commercial centres, offices and businesses that generate significant amounts of foot traffic. Staff observed a total of 29 pedestrians "jaywalking" on this section of Westminster Highway during the noon hour on a typical Wednesday. A Pedestrian Crossing Control Warrant conducted on the basis of this survey confirmed that a crosswalk is required at this location.

Due to the short distance between No. 3 Road and Minoru Boulevard (approximately 250 metres), a pedestrian actuated signal is not considered to be feasible at this location as it would have a negative impact on the signal co-ordination along Westminster Highway. Staff therefore propose that an overhead illuminated pedestrian crosswalk with flashing amber lights and pedestrian push button be installed. The new crosswalk, proposed to be located at near the Richmond Centre entrance (see attachment), will facilitate the existing high pedestrian movements crossing Westminster Highway thereby enhancing pedestrian safety at this location. A similar pedestrian crosswalk installed recently in front of the City Hall has proven to be effective.

## **2. Extension of Westbound Left-Turn Bay on Westminster Highway at Minoru Boulevard**

Traffic volumes on Westminster Highway have increased significantly in the past few years. The observed westbound traffic volume east of Minoru Boulevard on Westminster Highway today is approximately 12 percent higher than the traffic volume in 1993. Furthermore, the peak hour demand for westbound left-turn traffic onto southbound Minoru Boulevard has exceeded the existing left-turn lane storage capacity at this intersection. As a consequence, the westbound left-turning traffic frequently spills over onto the westbound through lane creating operational problems and potential safety hazards.

Upon conducting a traffic queue analysis at the Westminster Highway and Minoru Boulevard intersection, staff concluded that the existing westbound left-turn storage should be extended from 48 metres to 80 metres. In order to achieve this, the existing eastbound mid-block left-turn bay (at 7831 Westminster Highway) is required to be closed. This issue is discussed in more details in the following section. The above modification work on the existing centre median is proposed to be carried out in conjunction with the installation of the new crosswalk.

## **3. Closure of Eastbound Left-Turn Bay Mid-block on Westminster Highway**

Staff propose that an existing eastbound left-turn bay at 7831 Westminster Highway (mid-block between No. 3 Road and Minoru Boulevard) be closed for the following reasons:

- As discussed in the previous section, removal of this mid-block left-turn bay is required to accommodate a longer westbound left-turn bay at Minoru Boulevard.
- Elimination of mid-block left-turn movements would enhance pedestrian safety by reducing the conflicts between cars and pedestrians at the driveway.
- The left-turn bay is not well used as it functions as one of three driveway accesses for the property at 7831 Westminster Highway. Motorists approaching from west of the site could alternatively access this site by turning left at Minoru Boulevard and right at Firbridge Way as an alternative route to making a left turn on Westminster Highway in front of the property.
- Restoration of the raised centre median at this location will create further landscape opportunities on Westminster Highway and promote this street as a gateway to the City Centre area.

The intention to remove the above left-turn bay and close the median was noted in staff comments as part of the development application permit review process in 1995 for the property at 7831 Westminster Highway. The developer was therefore made aware of the proposed median closure at that time.

## **4. ICBC Road Safety Improvement Program**

The Insurance Corporation of British Columbia (ICBC) has been a key partner working with the City to promote traffic safety in Richmond. The above recommended crosswalk is one of many projects to be cost-shared as part of the *2001 Road Safety Improvement Program*. ICBC acknowledged the safety benefits of implementing this project and has recently committed a maximum funding contribution of \$50,000 towards the cost of the above crosswalk improvements.

## FINANCIAL IMPACT

The cost to implement the proposed pedestrian and traffic safety enhancements outlined in this report is estimated at \$64,000. ICBC has already committed \$50,000 towards this project as part of the *2001 Road Safety Improvement Program*. The remaining \$14,000 of the project cost can potentially be jointly funded by TransLink's *Minor Capital Improvement Program* (subject to further review), the re-development of 7831 Westminster Highway as part of the road frontage improvements, and the City's *2001 Traffic Signal Installation Program*.

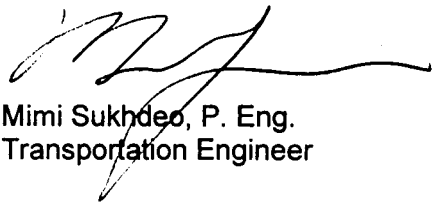
## CONCLUSION

Westminster Highway between No. 3 Road and Minoru Boulevard is one of the busiest retail-oriented streets within the City Centre area. It serves as a major commuter corridor as well as a critical pedestrian link for the downtown businesses. At present, many pedestrians "jaywalk" on this section of Westminster Highway resulting in potential safety hazards to both pedestrians and motorists.

Staff have conducted warrant analysis and conclude that a crosswalk is required at this location. As a full pedestrian actuated signal here would have significant negative impacts on the signal coordination along Westminster Highway, staff propose that an overhead illuminated pedestrian crosswalk (with pushbuttons and flashing amber lights) be installed near the Richmond Centre entrance.

In order to enhance traffic flow at this location, staff also propose that the westbound left-turn bay at Minoru Boulevard intersection be extended, and the existing mid-block eastbound left-turn bay at 7831 Westminster Highway be removed. This project will provide opportunities to improve the overall appearance of Westminster Highway with landscape enhancements on the raised centre median at this location.

Staff recommend that Council endorse the above pedestrian and traffic safety enhancements for implementation by March 2002, with funding of up to \$50,000 from ICBC through their *2001 Road Safety Improvement Program*. The remaining \$14,000 is proposed to be funded by the City through the *2001 Traffic Safety Improvement Program*.



Mimi Sukhdeo, P. Eng.  
Transportation Engineer

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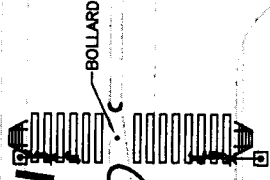


MINORU BLVD

Installation of Overhead Illuminated Pedestrian Crossing with Amber Flashers and Pedestrian Activated Push Button

7831

WESTMINSTER HWY



Richmond Centre Entrance

Extension of Existing Westbound Left-Turn Bay

Restoration of Centre Median

Closure of Existing Mid-Block Eastbound Left-Turn Bay

Proposed Crosswalk and Traffic Safety Improvements Westminster Hwy - Between No. 3 Rd. and Minoru Blvd.