



To: Public Works and Transportation Committee To PW+T - September 5, 2002  
 From: Gordon Chan, P. Eng. Date: August 20, 2002  
 Director, Transportation File: 6500-01

Re: **TRANSLINK 2003 MAJOR ROAD NETWORK (MRN) – MINOR CAPITAL PROGRAM SUBMISSION**

**Staff Recommendation**

1. That the submission of the following 10 road improvement projects for cost-sharing as part of the TransLink 2003 Major Road Network Minor Capital Program, as described in the attached report , be endorsed:
  - (a) Bridgeport Road/Knight Street Interchange Improvements;
  - (b) No. 3 Road Sidewalk Improvements (Cambie Road to Sea Island Way);
  - (c) Nelson Road Widening Improvements (Westminster Highway to Blundell Road);
  - (d) Steveston Highway Traffic Signal Improvements (Shell Road, Gilbert Road and No. 3 Road);
  - (e) Bridgeport Road/Simpson Road Traffic Signal Improvements;
  - (f) No. 2 Road Traffic Signal Improvements (Francis Road and Williams Road);
  - (g) No. 2 Road/Steveston Highway Traffic Signal Improvements;
  - (h) Elmbridge Way/Westminster Highway Traffic Signal Improvements;
  - (i) Westminster Highway/No. 4 Road Intersection Safety Improvements; and
  - (j) Westminster Highway/No. 8 Road Pedestrian/Cyclist-Actuated Signal Installation.
2. That staff report back to Council on the outcome of the evaluation by the Major Roads Technical Advisory Committee on the above proposed submission to the 2003 Major Road Network Capital Development Program.

Gordon Chan, P. Eng.  
Director, Transportation

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<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Engineering .....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

## Staff Report

### Origin

TransLink provides shared funding for the maintenance, rehabilitation and capital improvements of approximately 2,100 lane-kilometres of major roads across the region that comprise the Major Road Network (MRN). MRN-designated roads provide access to important activity centres in the region and meet funding criteria related to trip length and traffic volumes of automobiles, transit vehicles and trucks.

Since 1999, municipalities have been invited each year to submit road improvement projects on the MRN for 50-50 funding consideration from TransLink's Major Road Network Capital Development Program. In 2002, the City obtained TransLink approval of nearly \$1.3 million for intersection and pedestrian facility improvements at various locations as well as traffic safety and cycling improvements on Westminster Highway between No. 7 Road and No. 8 Road.

This staff report presents the proposed submission from the City for cost-sharing as part of the TransLink 2003 MRN Minor Capital Program.

### Analysis

#### 1. Major Road Network Elements in Richmond

Richmond's share of the MRN consists of 130 lane-kilometres, which represents about 6 percent of the entire MRN in the region. Richmond's components of the existing Major Road Network (MRN) are comprised of the following elements:

- No. 2 Road (Russ Baker Way to Steveston Highway including the No. 2 Road Bridge);
- Steveston Highway between No. 2 Road and Highway 99;
- Westminster Highway between No. 2 Road and Boundary Road;
- Alderbridge Way between No. 3 Road and Shell Road;
- Bridgeport Road between Highway 99 and Knight Street;
- Knight Street Corridor (Westminster Highway to south end of the Knight Street Bridge);
- No. 3 Road between Sea Island Way and Westminster Highway; and
- Gilbert Road between Westminster Highway and Dinsmore Bridge.

In addition, the City has applied to TransLink for inclusion in the MRN of the following sections of roads:

- Nelson Road between Westminster Highway and Blundell Road; and
- Blundell Road between Highway 99 and Nelson Road.

Although Blundell Road between Highway 99 and No. 8 Road currently does not exist, an application for its consideration as part of the MRN is necessary at this time in order to be eligible to access future TransLink funding to support its construction.

## 2. Capital Cost-sharing Arrangement

TransLink funding available for the 2003 Major Road Network Minor Capital Program is \$20 million. Municipalities are required to match TransLink funding on a 50-50 cost-sharing basis up to a maximum funding level allocated for each municipality based on the following criteria:

- the percentage of MRN lane-kilometres in each municipality (50% weight);
- the municipal share of the combined regional population and employment growth over the 1999-2006 period (25% weight); and
- the municipal percentage of the regional travel growth over the 1996-2006 period (25% weight).

Based on these criteria, Richmond is eligible to receive 9.2 percent of the annual MRN capital funding (Richmond's population represents 8.1 percent of the total GVRD population). Per TransLink's 3-Year Transportation and Financial Plan, MRN minor capital funding is \$20 million in each of 2003 and 2004. Of this \$20 million, it is anticipated that \$15 million will be available as block funding for municipalities each year with the remaining \$5 million available for needs-based funding for larger scale projects of a regional significance. Therefore, based on the above funding criteria, up to \$2.76 million of TransLink's \$30 million MRN capital block funding for 2003 and 2004 will be allocated to Richmond to implement eligible road improvement projects.

## 3. Submission to 2003 MRN Minor Capital Program

Based on the current planned capital projects on major roads for 2003 and potential development-related road upgrades, staff have identified the following road improvements for submission to TransLink for inclusion in the 2003 MRN Minor Capital Program.

- (a) Bridgeport Road/Knight Street Interchange Improvements – Interchange modifications related to adjacent development and related traffic signal modifications to enhance traffic safety and roadway capacity.
- (b) No. 3 Road Sidewalk Improvements (Cambie Road to Sea Island Way) – Construction of a 2.0-m wide sidewalk with landscaped boulevard on the west side of No. 3 Road between Cambie Road and Sea Island Way. This project is proposed to be undertaken in conjunction with the work of undergrounding the hydro and telephone lines along this section of No. 3 Road.
- (c) Nelson Road Widening Improvements (Westminster Highway to Blundell Road) – Widening of Nelson Road between Westminster Highway and Blundell Road to improve roadway capacity and traffic safety as part of development requirements. TransLink funding for this project is subject to the agency's approval of Nelson Road for inclusion in the MRN, which is currently under review.
- (d) Steveston Highway Traffic Signal Improvements (Shell Road, Gilbert Road and No. 3 Road) – Traffic signal upgrades at the intersections of Steveston Highway with No. 3 Road, Gilbert Road and Shell Road. The scope of work includes installation of left-turn arrows, enhanced vehicle detection and new traffic signal controllers.

- (e) Bridgeport Road/Simpson Road Traffic Signal Improvements – Traffic signal upgrade of intersection of Bridgeport Road and Simpson Road. The scope of work includes installation of left-turn arrows, enhanced vehicle detection and new traffic signal controllers.
- (f) No. 2 Road Traffic Signal Improvements (Francis Road and Williams Road) – Traffic signal upgrades at the intersections of No. 2 Road with Francis Road and Williams Road. The scope of work includes installation of left-turn arrows, enhanced vehicle detection and new traffic signal controllers.
- (g) No. 2 Road/Steveston Highway Traffic Signal Improvements – Traffic signal upgrades at the intersections of No. 2 Road with Francis Road and Williams Road. The scope of work includes installation of left-turn arrows, enhanced vehicle detection and new traffic signal controllers.
- (h) Elmbridge Way/Westminster Highway Traffic Signal Improvements – Traffic signal upgrades at the intersection of Elmbridge Way and Westminster Highway. The scope of work includes enhanced vehicle detection and new traffic signal controllers.
- (i) Westminster Highway/No. 4 Road Intersection Safety Improvements – Re-alignment of left-turn bays on Westminster Highway (westbound and eastbound) and associated traffic signal modifications to improve traffic safety and operational efficiency.
- (j) Westminster Highway/No. 8 Road Pedestrian/Cyclist-Actuated Signal Installation – Installation of a pedestrian/cyclist-actuated signal at Westminster Highway and No. 8 Road. The device is intended to facilitate the safe movement of pedestrians and cyclists across Westminster Highway to access the multi-use pathway to be constructed on the south side between No. 7 Road and No. 8 Road.

**Financial Impact**

The total estimated project cost of the above 2003 submission to TransLink’s MRN Minor Capital Program is approximately \$5.7 million as summarized in the table below. These estimated project costs are very preliminary and will be further refined in the detailed design process. If approved by TransLink, it is expected that the City will recover 50 percent of the project costs (construction and land costs) or up to a total maximum amount of \$1,375,000. In addition, some of the traffic signal-related projects are potential projects for cost-sharing with ICBC. The City’s portion for these projects is included either in the City’s Major Capital Works Program or is being contributed from DCC/development requirements.

**2003 TransLink MRN Minor Capital Program Submission  
Proposed Road Improvement Projects**

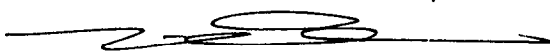
Project Name	Funding Source for City’s Portion	Estimated Cost
(a) Bridgeport Road/Knight Street Interchange Improvements	DCC/Development Agreement	\$2,570,000
(b) No. 3 Road Sidewalk Improvements (Cambie Road to Sea Island Way)	2002 Major Capital Program	\$100,000

Project Name	Funding Source for City's Portion	Estimated Cost
(c) Nelson Road Widening Improvements (Westminster Highway to Blundell Road)	DCC/Development Agreement	\$2,590,000
(d) Steveston Highway Traffic Signal Improvements (Shell Road, Gilbert Road and No. 3 Road)	2003 Traffic Signal Installation Program	\$24,200
(e) Bridgeport Road/Simpson Road Traffic Signal Improvements	2003 Traffic Signal Installation Program	\$21,000
(f) No. 2 Road Traffic Signal Improvements (Francis Road and Williams Road)	2003 Traffic Signal Installation Program	\$44,000
(g) No. 2 Road/Steveston Highway Traffic Signal Improvements	2003 Traffic Signal Installation Program	\$55,000
(h) Elmbridge Way/Westminster Highway Traffic Signal Improvements	2003 Traffic Signal Installation Program	\$11,000
(i) Westminster Highway/No. 4 Road Intersection Safety Improvements	2003 Traffic Signal Installation Program/Major Capital Works Program	\$220,000
(j) Westminster Highway/No. 8 Road Traffic Signal Installation	2003 Traffic Signal Installation Program	\$80,000
<b>Total</b>		<b>\$5,715,200</b>

The various projects identified in the above proposed 2003 MRN Minor Capital Program submission by Richmond are subject to Council approval of the 2003 Capital Program Plan and final negotiations with developers.

**Conclusion**

Ten road safety and capacity improvement projects on the City's portion of the regional MRN are proposed for inclusion in the 2003 TransLink MRN Minor Capital Program for cost-sharing. All projects are consistent with MRN principles and are intended to improve traffic safety, roadway capacity, operational efficiency and pedestrian safety. This report seeks to formalize Council support for the submission and secure Richmond's allocation of funding for 2003. Staff will report back to Council on the result of the review and approval of the MRN Minor Capital Program by TransLink.



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JC:jc