



To: Public Works and Transportation Committee **Date:** January 11, 2002
From: Gordon Chan, P. Eng. **File:** 6500-01
Director, Transportation
Re: **TRANSLINK 2002 MAJOR ROAD NETWORK (MRN) MINOR CAPITAL
PROGRAM SUBMISSION**

Staff Recommendation

1. That the submission of the following 11 road improvement projects for cost-sharing as part of the TransLink 2002 Major Road Network Minor Capital Program, as described in the attached report, be endorsed:
 - (a) Arterial Road Traffic and Pedestrian Safety Improvements (at three locations);
 - (b) Steveston Highway Intersection Safety and Capacity Improvements (Shell Road to No. 2 Road);
 - (c) No. 2 Road Intersection Safety and Capacity Improvements (Williams Road to Francis Road);
 - (d) Alderbridge Way/Kwantlen Street Intersection Improvement;
 - (e) Alderbridge Way Traffic and Pedestrian Safety Improvements (Hazelbridge Way to Garden City Road);
 - (f) Westminster Highway Traffic Safety and Capacity Improvements (Minoru Boulevard to No. 3 Road);
 - (g) Westminster Highway Traffic Safety and Capacity Improvements (Buswell Street to Cooney Road);
 - (h) Westminster Highway/Nelson Road Traffic Signal and Intersection Improvements;
 - (i) Westminster Highway Eastbound Left-turn Lane (between No. 8 Road and Nelson Road);
 - (j) Steveston Highway/No. 5 Road Intersection Improvement (Northbound to Eastbound Right-turn Lane); and
 - (k) Steveston Highway/No. 5 Road Intersection Improvement (Eastbound to Southbound Right-turn Lane).
2. That staff report back on the outcome of the evaluation by the Major Roads Technical Advisory Committee on the above proposed submission to the 2002 Major Road Network Capital Development Program.

Gordon Chan, P. Eng.
Director, Transportation

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CONCURRENCE OF GENERAL MANAGER

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 2000, the City received approximately \$365,000 from this program for intersection improvements along No. 3 Road, improvements to Westminster Highway in the Hamilton area and traffic signal modifications at various locations. The City received \$1 Million in 2001 for the extension of Garden City Road from Sea Island Way to Bridgeport Road as well as traffic safety and cycling improvements on Gilbert Road between Granville Avenue and the Dinsmore Bridge.

This staff report presents the proposed submission from the City for cost-sharing as part of the TransLink 2002 MRN Minor Capital Program. To accommodate TransLink's timeline for the finalization of the 2002 Program Plan, member municipalities have been requested to forward their submissions by January 31, 2002.

Analysis

1. Major Road Network Elements in Richmond

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.

Richmond's share of the MRN consists of 130 lane-kilometres, which represents about 6 percent of the entire MRN in the region.

2. Capital Cost-sharing Arrangement

TransLink funding available for the 2002 Major Road Network Minor Capital Program in 2002 is expected to be \$15.0 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). Total funding available from TransLink for this program was \$10 Million in 2001. As a result of the recent TransLink Board decision to increase revenues, this amount is expected to increase to \$15 Million in 2002 and \$20 Million in 2003. Therefore, based on the above funding criteria, and subject to TransLink Board approval in early spring of 2002, \$1.38 Million of TransLink's \$15 Million MRN capital funding for 2002 can be expected to be allocated to Richmond to implement eligible road improvement projects.

Moreover, starting in 2002, road improvements being implemented by developers as part of development requirements are considered as municipal contribution and therefore will be eligible for cost-sharing under this program.

3. Submission to 2002 MRN Capital Development Program

Based on the current planned capital projects on major roads for 2002 and potential development-related road upgrades, staff have identified the following road improvements for submission to TransLink for inclusion in the 2002 MRN Minor Capital Program.

- (a) Arterial Road Traffic and Pedestrian Safety Improvements – On November 26, 2001, Council endorsed a list of arterial road crosswalk upgrades as part of a multi-year crosswalk enhancement program. A total of 42 pedestrian crosswalks have been identified to be upgraded with overhead illuminated signs and pedestrian-activated amber flashing lights. Three of these crosswalks, No. 3 Road/Anderson Road, No. 2 Road/Colville Road and Westminster Highway/Smith Road, are located on MRN corridors and are eligible for TransLink funding contributions.
- (b) Steveston Highway Intersection Safety and Capacity Improvement (Shell Road to No. 2 Road)
Five signalized intersections on Steveston Highway have been identified for signal upgrades including Shell Road, No. 4 Road, No. 3 Road, Gilbert Road and No. 2 Road. The scope of work includes installation of left-turn arrows, enhanced vehicle detection and new controllers.
- (c) No. 2 Road Intersection Safety and Capacity Improvements (Williams Road to Francis Road)
The intersections of No. 2 Road/Francis Road and No. 2 Road/Williams Road have been identified for signal upgrades. The scope of work includes installation of left-turn arrows, enhanced vehicle detection and new controllers.

- (d) Alderbridge Way/Kwantlen Street Intersection Improvement – This project involves intersection modifications (e.g., widening of the substandard north leg to a similar standard as that of the south leg) and related traffic signal modifications to enhance safety and capacity.
- (e) Alderbridge Way Traffic and Pedestrian Safety Improvements (Hazelbridge Way to Garden City Road) - This project involves the construction of a walkway on the north side (Hazelbridge Way to Garden City Road) and a sidewalk on the south side (Kwantlen Street to Garden City Road) to complete the missing sections on Alderbridge Way between Hazelbridge Way and Garden City Road.
- (f) Westminster Highway Traffic Safety and Capacity Improvements (Minoru Boulevard to No. 3 Road) - On October 9, 2001, Council endorsed the implementation of several traffic safety and intersection capacity improvement measures on Westminster Highway between No. 3 Road and Minoru Boulevard, including a new crosswalk between Richmond Centre and London Plaza and lengthening of the eastbound left-turn lane at Westminster Highway and Minoru Boulevard.
- (g) Westminster Highway Traffic Safety and Capacity Improvements (Buswell Street to Cooney Road) - Development requirements necessitate installation of a raised centre median on Westminster Highway from west of Cooney Road to just east of Buswell Street to enhance traffic safety and roadway capacity. The new median will improve through movements and reduce left-turn conflicts.
- (h) Westminster Highway/Nelson Road Traffic Signal and Intersection Improvements
The recently completed *Fraserport Development Servicing Study* and *Fraser Richmond Phase I Traffic Impact Study* both recommend the signalization and channelization of the Westminster Highway/Nelson Road intersection to improve roadway capacity and safety as part of development requirements.
- (i) Westminster Highway Eastbound Left-turn Lane (between No. 3 Road and Nelson Road)
To accommodate development, installation of an eastbound left-turn lane on Westminster Highway between No. 8 Road and Nelson Road is required to improve road capacity and traffic safety.
- (j) Steveston Highway/No. 5 Road Intersection Improvement (Northbound to Eastbound Right-Turn Lane) - A northbound right-turn lane at the Steveston Highway/No. 5 Road intersection is required to accommodate development and enhance road capacity. The City's cost to acquire the necessary land for this improvement is eligible for cost-sharing in the program.
- (k) Steveston Highway/No. 5 Road Intersection Improvement (Eastbound to Southbound Right-Turn Lane) - The existing eastbound right-turn lane on Steveston Highway at No. 5 Road requires extension to accommodate development and improve road capacity.

Financial Impact

The total project cost of the above 2002 submission to TransLink's MRN Minor Capital Program is approximately \$3.0 Million. 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 \$1,383,900. 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.

The following table summarizes the projects to be included in the proposed 2002 submission along with their preliminary estimated costs.

**2002 TransLink MRN Minor Capital Program Submission
Proposed Road Improvement Projects**

Item	Project Name	Funding Source for City's Portion	Estimated Cost
(a)	Arterial Road Traffic and Pedestrian Safety Improvements	2002 Arterial Road Crosswalk Improvement Program	\$150,000
(b)	Steveston Highway Intersection Safety and Capacity Improvements (between Shell Road to No. 2 Road)	2002 Traffic Signal Installation Program	\$102,500
(c)	No. 2 Road Intersection Safety and Capacity Improvements (Williams Road to Francis Road)	2002 Traffic Signal Installation Program	\$33,700
(d)	Alderbridge Way/Kwantlen Street Intersection Improvement	2002 Major Capital Works Program and the City's Strategic Land Acquisition Program	\$800,000
(e)	Alderbridge Way Traffic and Pedestrian Safety Improvements (Hazelbridge Way to Garden City Road)	2002 Major Capital Works Program (north side) and developer as part of a proposed development (south side)	\$452,500
(f)	Westminster Highway Traffic Safety and Capacity Improvements (Minoru Boulevard to No. 3 Road)	2001 Traffic Signal Installation Program and ICBC Traffic Safety Improvement Program	\$81,300
(g)	Westminster Highway Traffic Safety and Capacity Improvements (Buswell Street to Cooney Road)	DCC/Development Agreement	\$125,000
(h)	Westminster Highway/Nelson Road Traffic Signal and Intersection Improvements	DCC/Development Agreement	\$500,000
(i)	Westminster Highway Eastbound Left-turn Lane (between No. 8 Road and Nelson Road)	DCC/Development Agreement	\$250,000
(j)	Steveston Highway/No. 5 Road Intersection Improvement (northbound to eastbound right-turn lane)	DCC/Development Agreement and City's Strategic Land Acquisition Program	\$410,000
(k)	Steveston Highway/No. 5 Road Intersection Improvement (eastbound to southbound right-turn lane)	DCC/Development Agreement	\$125,000
	Total		\$3,030,000

The various projects identified in the proposed 2002 MRN Minor Capital Program submission by Richmond are subject to Council approval of the 2002 Capital Program Plan and final negotiations with developers.

Conclusion

Eleven road safety and capacity improvement projects on the City's portion of the regional MRN are proposed for inclusion in the 2002 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 2002. 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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