

## COUNCIL REPORT

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**TO:** CITY MANAGER **DATE:** 2008 November 18

**FROM:** DIRECTOR PLANNING AND BUILDING **FILE:** PL 2156-01  
DIRECTOR ENGINEERING *Ref: TransLink MRN Capital*

**SUBJECT: 2009 TRANSLINK MAJOR ROADS NETWORK (MRN) MINOR CAPITAL PROGRAM: RECOMMENDED PROJECTS**

**PURPOSE:** To seek Council approval of roads projects recommended for submission to TransLink for funding under the 2009 MRN Minor Capital Program.

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**RECOMMENDATIONS:**

1. **THAT** Council approve the projects identified in *Section 2.2* of this report for funding under the 2009 TransLink MRN Minor Capital Program.
2. **THAT** a copy of this report be forwarded to the Transportation Committee for information.
3. **THAT** a copy of this report be forwarded to Mr. H. Wang, TransLink, 4330 Kingsway, Burnaby, B.C., V5H 4G8.

**REPORT****1.0 BACKGROUND**

The City of Burnaby has 317.7 lane km of major roads in the TransLink Major Roads Network (MRN). In 2008, the City applied for and received cost share funding of \$2,362,000 under the block allocation portion of the TransLink Major Road Network (MRN) Minor Capital Program. The 2008 projects included the Willingdon HOV Phase 3 (Brentlawn to Parker segment), Kingsway from Smith to Patterson and the intersection of Kingsway/14<sup>th</sup> Avenue. Phase 2 of the Integrated Traffic Signal System was also approved for cost sharing. According to the program guidelines, the City has until the end of 2009 to complete the projects applied for in the 2008 MRN Capital Program but may also apply to TransLink for an extension.

The purpose of this report is to bring forward, for Council consideration, projects to be included in Burnaby's submission for funding under the 2009 MRN Minor Capital Program. These projects, if approved by Council, would be reviewed by the TransLink Major Roads and Transportation Advisory Committee (MRTAC) and submitted to the TransLink Board for consideration in early 2009.

## 2.0 PROPOSED 2009 MRN CAPITAL PROJECTS

### 2.1 Available Funding

A total of \$20 million is available region-wide each year to municipalities for projects submitted under the “block allocation” portion of the MRN Minor Capital Program. Any “unallocated” funds remaining after municipal project submissions have been approved can be assigned to other MRN projects based on need. Approved road projects are cost-shared by TransLink up to a maximum of 50% for any single project. The maximum “block allocation” funding available to the City of Burnaby in the 2009 MRN Capital Program is currently \$2,356,000.

The following MRN Capital projects have also been advanced for consideration in the Major Roads component of the City’s 2009 - 2013 Provisional Capital Program submission.

### 2.2 Proposed 2009 MRN Capital Projects

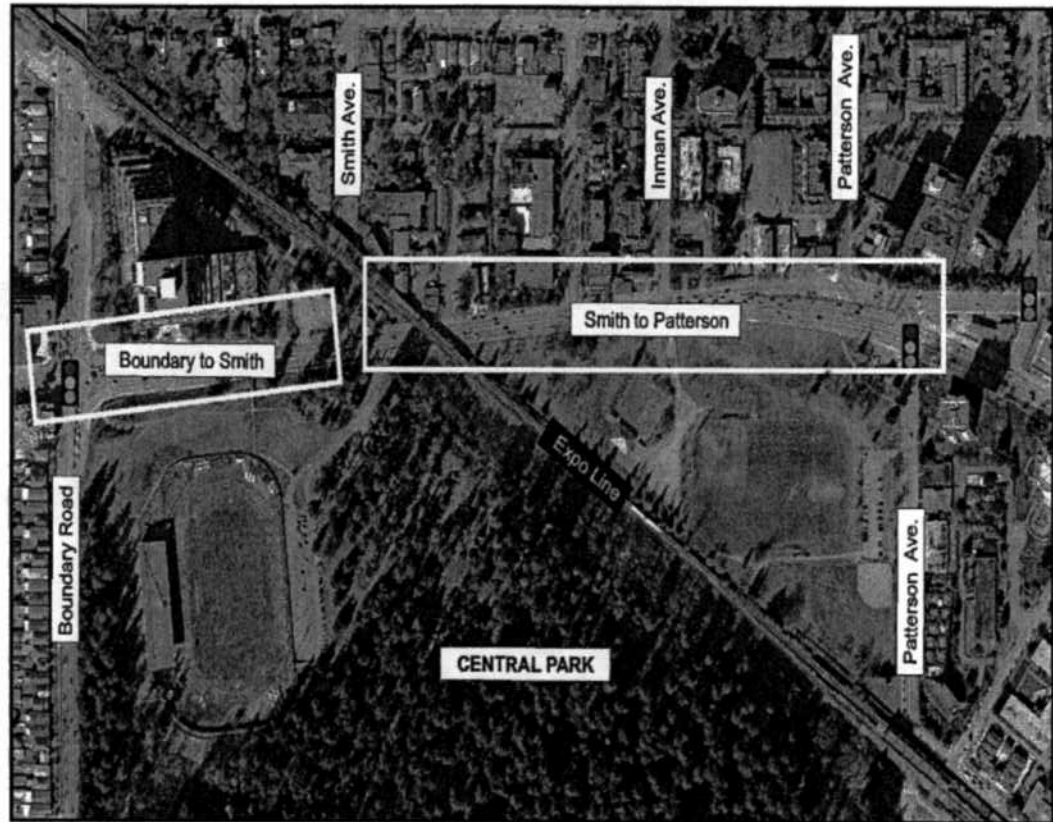
#### 2.2.1 Kingsway: Smith Avenue to Patterson Avenue

The Burnaby Transportation Plan identifies Kingsway as a Primary Arterial similar in classification to Hastings Street, Lougheed Highway and Marine Way. A Primary Arterial road standard provides for a minimum of six travel lanes with pedestrian and cycling facilities as required.

Kingsway is largely constructed to a six lane standard from Boundary Road to Edmonds Street, except for the segment from Smith Avenue to Patterson Avenue. As shown in *Figure 1*, in 1996, Boundary Road at Kingsway and the segment of Kingsway from Boundary to Smith were reconstructed to six lanes to improve traffic conditions at the intersection of Kingsway/Boundary. Due to funding considerations and other priorities, the segment of Kingsway from Smith to Patterson was postponed to a later date.

Kingsway from Smith to Patterson currently has two travel lanes in each direction with a parking lane on the north side. The project would widen the south side of Kingsway to accommodate three eastbound and three westbound travel lanes, reconstruct the Kingsway/Patterson Avenue intersection, develop bike and pedestrian crossings of Kingsway and improve Central Park access.

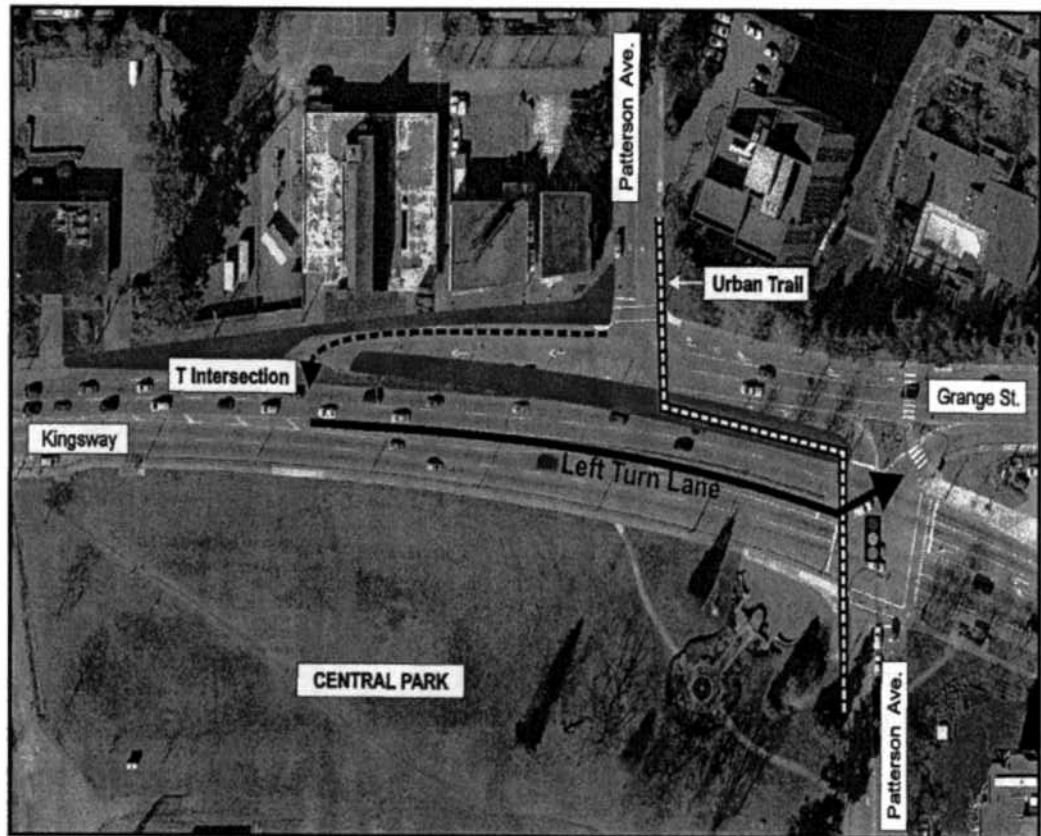
**Figure 1 Kingsway Boundary to Patterson**



Reconstructing this segment of Kingsway has been identified as a priority as it would address a number of transportation and traffic issues as follows:

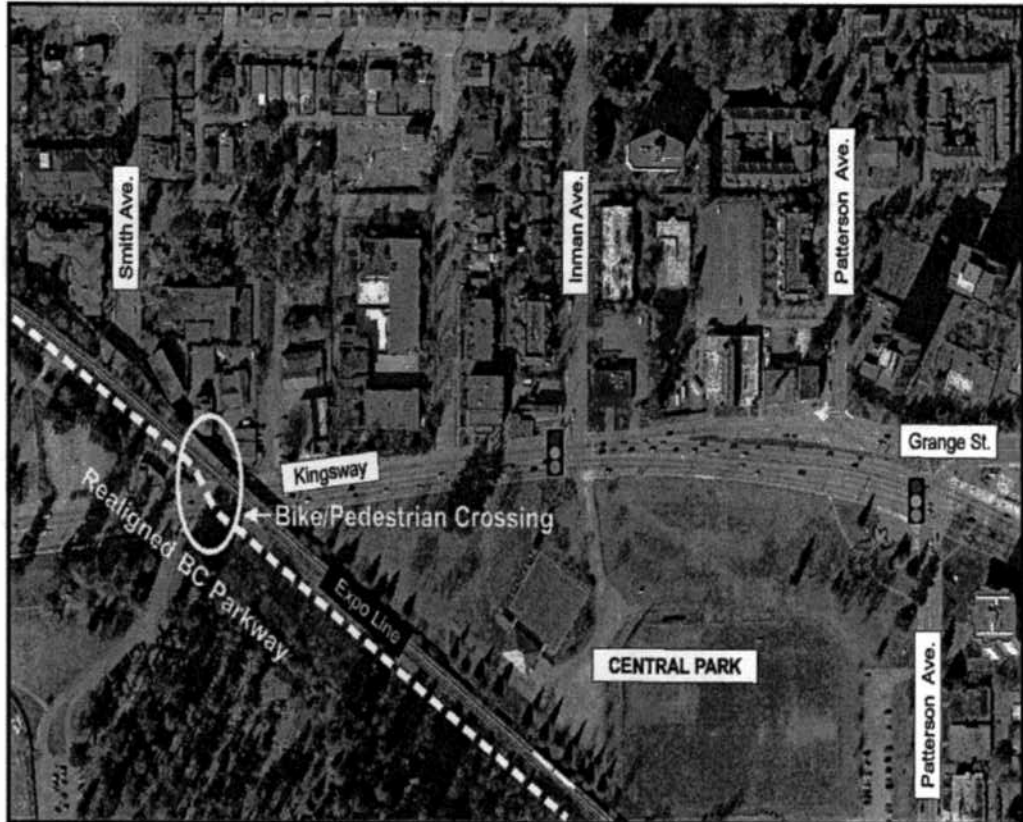
- **Traffic Safety** – The Kingsway-Patterson intersection is an off-set intersection that has experienced traffic operational problems for a number of years. The project would extend the left turn bay on Kingsway eastbound at Patterson, as shown in *Figure 2*, to accommodate left-turning movements from Kingsway onto Grange. It would also improve the safety of vehicles travelling from westbound Grange to westbound Kingsway by reconfiguring the intersection. Currently, vehicles travelling west on Grange must stop west of Patterson and merge with westbound traffic on Kingsway. To improve sight lines and better clarify the right-of-way, the westbound lanes on Grange at Kingsway would be reconfigured to a stop sign-controlled “T” intersection.

**Figure 2 Kingsway Patterson Intersection**



- **Bike/Pedestrian Safety** – as shown in *Figure 3*, a new signalized bike/pedestrian crossing would be installed across Kingsway immediately west of the Expo SkyTrain line. This signal would serve the new BC Parkway which would be relocated to follow the BC Hydro right-of-way from Boundary Road to Kingsway. In addition, an Urban Trail crossing (*Figure 2*) would be provided across both Kingsway and Grange from Patterson Avenue south of Kingsway to Patterson Avenue north of Grange as an improvement to the existing Sea to River Bikeway. A separated sidewalk with a landscaped boulevard would also replace the existing abutting sidewalk on Kingsway between Smith and Patterson adjacent to the park and would provide an improved interface between the sidewalk and the eastbound travel lane.

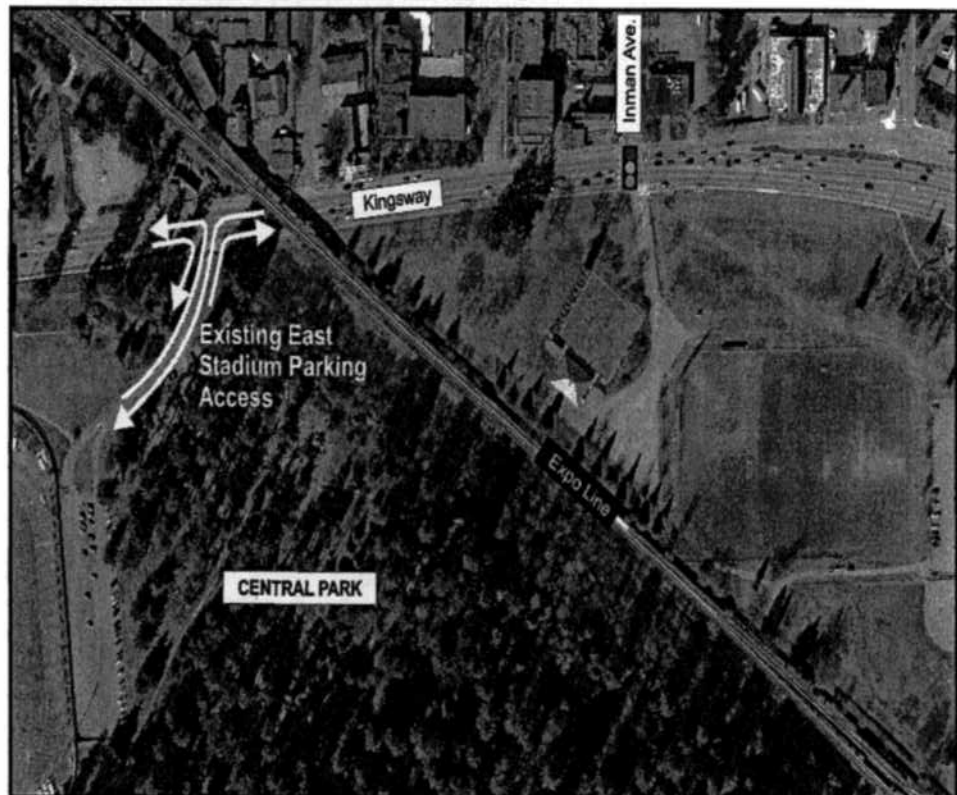
**Figure 3 Kingsway Smith to Patterson  
BC Parkway Crossing of Kingsway**



- **Traffic Management** - At Smith Avenue, eastbound vehicles on Kingsway must merge from three lanes to two lanes and then back to three lanes east of Patterson. Similarly, in the westbound direction from Wilson to Boundary Road, traffic in three lanes must merge into two at Patterson. This restriction causes a bottleneck in both directions. By providing six lanes from Smith to Patterson to match the six lanes available on either side of this segment, the project would accommodate local and commuter traffic needs by eliminating this capacity constraint. It would also address the safety issue created by vehicles merging from three to two lanes.
- **Park Access** - Currently, the parking lot immediately east of Swangard Stadium has full movement access to and from Kingsway. However, advancement of the project will require changes to the existing East Stadium Parking lot access as shown in *Figure 4*. As currently configured, the current access would be unsafe for left turn and right turn movements after the project. Left turns across three lanes of eastbound traffic will need to be precluded as this movement would be unsafe for motorists.

Given the current location of the East Stadium Parking lot access driveway through the Central Park Heritage Entrance Gate, the proposed new curb location on Kingsway would also restrict visibility for right turns in and out of this access. As part of the project design, staff will undertake to address this issue.

**Figure 4 Central Park Parking Access**



On resolution of an approach, staff will seek Council approval for the proposed approach in relation to the project road design. Subsequently, and with receipt of the subject MRN funding, staff will seek Council funding approval for advancement of project construction, currently anticipated to commence in fall of 2009.

- **On-street parking for Central Park events**

Limited availability of parking in Central Park to accommodate Swangard Stadium events results in on-street parking on adjacent local neighborhood streets, often well removed from the venue. The project will provide for the additional use of the north and south curb lanes of Kingsway for on-street parking as appropriate.

To: City Manager  
 From: Director Planning and Building, Director Engineering  
 Re: 2009 TransLink MRN Minor Capital Program: Recommended Projects  
 2008 November 18.....Page 7

TransLink 50% cost sharing of \$817,500 for this project was approved under a previous 2008 MRN Minor Roads Capital Program application. The 2009 application would request additional TransLink funding of \$320,000 for the project bringing the total TransLink funding for this project to \$1,137,500 equivalent to the City share.

**Kingsway: Smith Avenue to Patterson \$ 2,275,000**

TransLink 2008 MRN Capital Share	\$ 817,500
TransLink 2009 MRN Capital Share	\$ 320,000
Burnaby Share	\$ 1,137,500

Detailed design of the project would be initiated in 2008 with construction to follow after the World Police and Fire Games to be held in Burnaby from July 27 to August 11, 2009.

**2.2.2 Willingdon Overpass Rehabilitation**

The Willingdon Overpass, shown in *Figure 5*, carries Willingdon Avenue over the Burlington Northern Santa Fe (BNSF) railway tracks, Alaska Avenue, and the newly constructed Still Creek Drive extension to Eastbrook Parkway.

**Figure 5 Willingdon Overpass Rehabilitation**



An annual inspection conducted in 2008 identified the bridge as being in generally good condition with an anticipated service life in excess of 25 years. A recently completed seismic assessment, however, also identified the bridge as not meeting current seismic design criteria. Although the bridge remains functionally adequate, the proposed seismic retrofit is needed to maintain the safety of this City-owned structure and its functionality as an emergency response route.

The retrofit tasks include replacement of the transverse shear keys, longitudinal restrainers, pier column restrainers, retaining wall anchors and an abutment stability retrofit. The retrofit design would be conducted in accordance with the BC Ministry of Transportation Seismic Retrofit Design Criteria and the Canadian Highway and Bridge Design Code.

<b>Willingdon Overpass Rehabilitation</b>	<b>\$1,000,000</b>
TransLink Share	\$ 500,000
Burnaby Share	\$ 500,000

### **2.2.3 Marine Way: East of Market Crossing to North Fraser Way**

Marine Way at North Fraser Way is currently a signalized intersection with two travel lanes in each direction on Marine Way and a westbound left turn lane. Traffic queuing on Marine Way develops in both eastbound and westbound directions at the intersection and at the North Fraser Way approach to the intersection during peak periods.

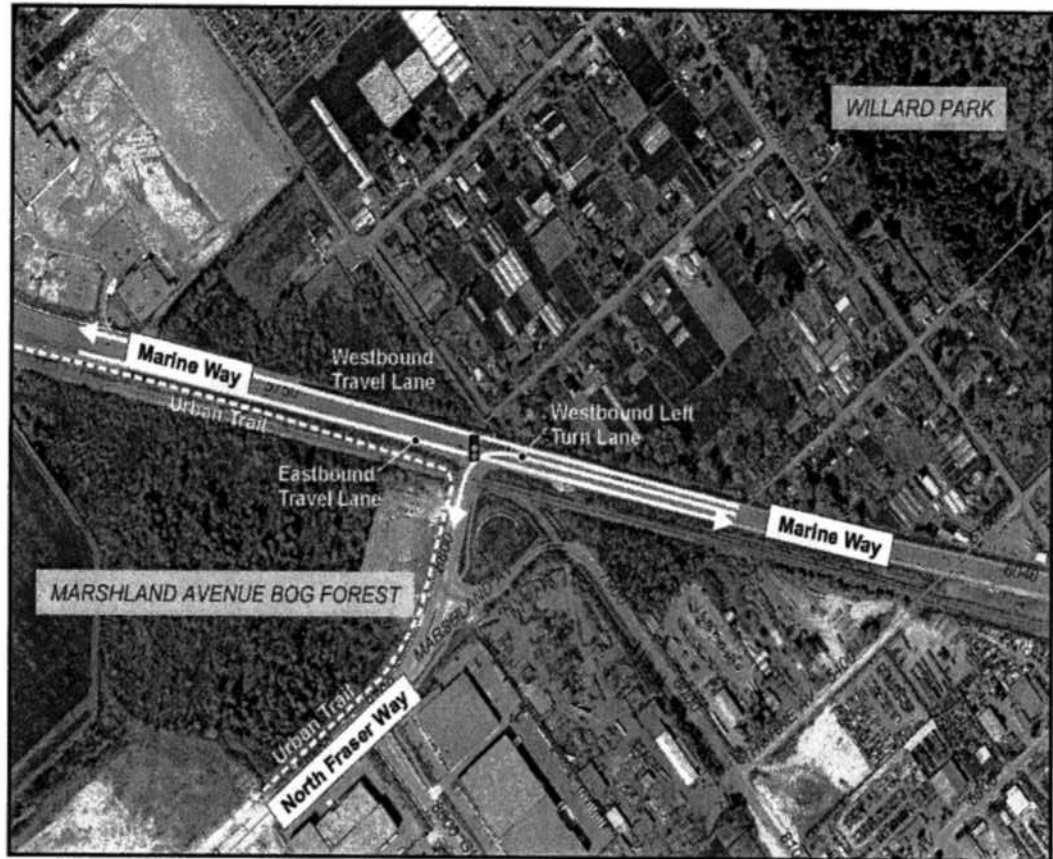
Improvements to the intersection are required to accommodate traffic generated by the rapidly-developing Big Bend Development Plan area. This project proposes to reconstruct Marine Way, as shown in **Figure 6**, from east of Market Crossing to east of North Fraser Way to the same standard as the segment from Byrne Road to east of Market Crossing with six travel lanes (three in each direction).

Left turn channelization on Marine Way westbound to North Fraser Way southbound would be lengthened for access to the rapidly-developing eastern part of the Big Bend. An Urban Trail would be constructed on the south side of the highway from Market Crossing to North Fraser Way. Noise fencing would be installed on the north side of Marine Way to protect the adjacent residential and agricultural area. The North Fraser Way approach to the intersection would be improved to provide two left turn lanes and one right turn lane northbound onto Marine Way.



To: City Manager  
 From: Director Planning and Building, Director Engineering  
 Re: 2009 TransLink MRN Minor Capital Program: Recommended Projects  
 2008 November 18.....Page 9

**Figure 6 Marine Way at North Fraser Way Improvements**



Preliminary design work would be undertaken to identify the most cost-effective approach to undertake this reconstruction and to provide a cost estimate for the project. It is proposed to apply to TransLink for \$1,536,000 as 50% of an initial \$3,072,000 expected to be required to reconstruct the intersection. Additional funding, as necessary, would be applied for under the 2010 MRN Capital Program.

<b>Marine Way: Market Crossing to North Fraser Way</b>	<b>\$ 3,072,000</b>
TransLink Share	\$ 1,536,000
City of Burnaby Share	\$ 1,536,000

To: City Manager  
From: Director Planning and Building, Director Engineering  
Re: 2009 TransLink MRN Minor Capital Program: Recommended Projects  
2008 November 18.....Page 10

**3.0 SUMMARY**

For 2009, the funding available from the TransLink MRN Capital Program is \$20 million region-wide. The City of Burnaby share of this funding is up to a maximum of \$2,356,000.

It is proposed that the City apply to TransLink for 50% cost sharing of the following projects:


**2009 MRN Minor Capital Projects**

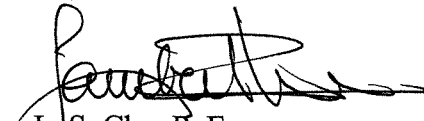
Kingsway: Smith to Patterson	\$ 640,000
Willingdon Overpass Rehabilitation	\$ 1,000,000
Marine Way: Market Crossing to North Fraser Way	\$ 3,072,000
<b>TOTAL</b>	<b>\$ 4,712,000</b>
TransLink Share	\$ 2,356,000
City of Burnaby Share	\$ 2,356,000

The total cost of the projects applied for in the 2009 TransLink MRN Capital Program is \$4,712,000 with \$2,356,000 as the 50% TransLink share of the program.

This report seeks Council approval to submit these projects for cost sharing under the provisions of the 2009 TransLink MRN Minor Capital Program. These projects would also be advanced for consideration in the Major Roads component of the 2009 - 2013 Provisional Capital Budget.

Staff would bring forward specific reports in 2009 to seek bylaw authority from Council for financing of these projects as they are advanced.

  
B. Luksun, Director  
PLANNING AND BUILDING

  
L. S. Chu, P. Eng.  
DIRECTOR ENGINEERING

RG/jc

cc: Director Finance  
Director Parks, Recreation and Cultural Services