

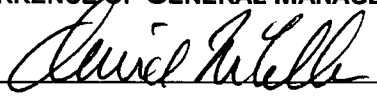


To: Public Works and Transportation Committee *To Public Works Transportation - May 25/02*
Date: May 7, 2002
From: Gordon Chan, P. Eng.
Director, Transportation
File: 6500-01
Re: **IMPROVEMENTS TO HIGHWAY 99 AT STEVESTON HIGHWAY AND
BLUNDELL ROAD**

Staff Recommendation

1. That Council endorse in principle the recommended improvements to Highway 99 at Steveston Highway and Blundell Road as described in the attached report; and that staff continue to work with the Ministry of Transportation and TransLink to advance these improvements towards the implementation phase by jointly addressing the outstanding design issues and financial arrangements.
2. That staff pursue the potential funding strategies for the new interchange at Blundell Road and the widening of the Steveston Highway overpass on Highway 99 by:
 - (a) Submitting Blundell Road to TransLink as an addition to the Major Road Network;
 - (b) Submitting the improvements of Blundell Interchange and Steveston Interchange as regional priorities in the upcoming review of TransLink's Strategic Transportation Plan;
 - (c) Submitting the above improvements to TransLink as candidate projects to be considered under the Major Capital Improvement Program;
 - (d) Carrying out discussions with the adjacent land owners/developers benefiting from the proposed improvements for potential public-private partnerships; and
 - (e) Conveying the need for the recommended improvements to TransLink, the Ministry of Transportation, local MLA's, local MP and the Minister responsible for Transportation with a view to securing capital funding from these senior governments.
3. That staff report back on the final interchange configurations, funding arrangements and timing for implementing the above recommended road improvements.

Gordon Chan, P. Eng.
Director, Transportation

FOR ORIGINATING DIVISION USE ONLY		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

Staff Report

Origin

On June 25, 2001, staff presented to Council the findings and recommendations of the preliminary planning phase the *Southeast Richmond Transportation Study*. The study, which was jointly undertaken by the City of Richmond, the Provincial Government, and TransLink, examined the need for road improvements on Highway 99 in the vicinity of Steveston Highway and Blundell Road. Subsequently, Council endorsed carrying forward the following recommended road improvements, to the next functional design phase of the study.

- Widening of Steveston Highway between No. 5 Road and Palmberg Road, including the overpass at the Highway 99 interchange;
- New full interchange at Blundell Road and Highway 99;
- Widening of Blundell Road to four lanes between No. 4 Road and the new Blundell Road Interchange; and
- Extension of Blundell Road from No. 6 Road to Nelson Road as a two- or four-lane road.

The functional design phase of the *Southeast Richmond Transportation Study* is now completed. This staff report presents the recommendations from this phase of the study, the related detailed design issues that need to be examined further, and the potential funding strategies for the recommended road improvements.

Analysis

1. Existing Conditions

1.1 General Traffic

The southeast Richmond area is experiencing significant redevelopment adding pressure to an already constrained transportation system. The Steveston Highway Interchange serves as the primary access for this area via Highway 99. For the past decade, this interchange has been operating under severely congested conditions, particularly during the weekday peak hours. As a result, the northbound and southbound off-ramp traffic often backs-up onto the highway. The existing conditions have created a number of operational and safety issues such as the significant speed differential between the ramp traffic (outside lane) and the through traffic (inside lane) and abrupt lane changes on the highway. The situation is also worsened by the proximity of the George Massey Tunnel to the Steveston Highway Interchange. Traffic line-ups are often observed "spilling back" to the interchange, severely affecting the operational efficiency of the local road network.

1.2 Truck Traffic

The Steveston Highway Interchange serves the Riverside Industrial area located south of Steveston Highway, and also the waste management, sand hauling operations and entertainment complex located east of the highway. Increased land uses, generating a significant volume of truck movement, rely on a single point of access to Highway 99 via the two-lane Steveston Highway overpass, which currently operates at capacity.

2. Future Development Growth

In the southeast Richmond area east of Highway 99 at Blundell Road, the Fraserport industrial lands are being developed. This area is one of the last remaining industrial parcels of this size in the Lower Mainland. The development of these lands, which are several times larger than Fraser Surrey Docks, will generate a significant amount of traffic transporting goods to and from major activity centres and gateways throughout the region and province. Planned uses include major distribution centres such as the Hudson Bay Company, an auto auction facility, deep-sea berths, a large agricultural products bulk terminal, and other port related activities. The existing Riverside Industrial area continues to expand near the Steveston Highway Interchange. A number of proposed developments are also being considered for the Riverport area adjacent to the existing entertainment area. These potential developments include a hotel, condominiums, dormitories and amphitheatre.

3. Recommended Road Improvements (Attachment 1)

Accessibility to the Highway 99 system in the southeast Richmond area is critical in supporting the existing and future industrial developments in the area. These developments are major contributors towards the local, regional and provincial economy. The growing travel demands noted in the previous section emphasize the need for improved transportation access between the southeast Richmond area and the rest of the city as well as the region. To meet this need, the *Southeast Richmond Transportation Study* recommended the following road improvements:

3.1 New Blundell Road Interchange at Highway 99

Connection to the provincial highway system via a full Blundell Road Interchange including the extension of the Blundell Road right-of-way eastward is a critical element of the overall infrastructure required to support the development of the Fraserport industrial lands. This new interchange will also serve the purpose of removing much of the truck traffic from one of the most congested sections of the Highway 99 system (between Blundell Road and Steveston Highway).

3.2 Widening of Steveston Highway Overpass

The proposed twinning of the Steveston Highway overpass will provide increased capacity for the east-west traffic between the two existing signalized off-ramps and enable more flexible signal operations to optimize the off-ramp capacity. The improvements, therefore, will relieve pressure on both the northbound and southbound off-ramps at the Steveston Highway Interchange as well as address the safety issues noted in other sections of this report.

A new Blundell Road Interchange, together with the widening of Steveston Highway, will benefit all road users by distributing traffic movements effectively within the area road system. These improvements would also significantly improve road safety by providing a less congested access for all vehicular traffic, particularly for goods movement, to and from the provincial highway network.

4. Outstanding Design Issues

The *Southeast Richmond Transportation Study* has identified a number of road improvements to address the existing problems and support industrial developments in the area. To move this project forward, the focus should be on carrying out the following design related tasks:

- Develop an alternative design of a full tight diamond interchange at Highway 99/Blundell Road to reduce the project cost (thereby achieving an even higher benefit to cost ratio);
- Identify other measures to optimize the design and phasing of the improvements to further reduce the project costs;
- Investigate measures to mitigate any impacts on Highway 99 through traffic (e.g., median HOV operation, ramp metering and grade-separated on-ramp); and

The above issues are expected to be addressed in the next preliminary design phase of the study prior to implementation. The greatest challenge in implementing these improvements, however, lies with the issue related to funding as discussed below.

5. Possible Funding Sources

It is clear that the recommended improvements at both the Blundell Road Interchange and Steveston Highway Interchange would benefit a number of stakeholders, including road users, various levels of government and private land owners in the immediate area. It would therefore be logical to consider these beneficiaries as potential funding partners for these improvements. The potential funding partners are discussed as follows:

Federal Government

In the past, funding from the Federal Infrastructure Works Program had been used to cost-share improvements on the widening of Steveston Highway between No. 6 Road and Sidaway Road under a three-way split arrangement among the City, the Province and the Federal Government. This program was a one-time program and at this time, there is no indication that there will be similar programs in place in the near future. The Federal Government has indicated however that they might consider project type applications for funding possibly under a different infrastructure program. Staff propose to explore this option through correspondence with the local Member of Parliament and the local Transport Canada representative.

Provincial Government

Since the completion of the recent core review, it is apparent that funding from the provincial government would be limited. Under the current provincial budget, there is only \$10 million capital funding available this year for the entire province, and the expenditure of this fund would be contingent upon significant local government and private sector contributions. Although road facilities along the Highway 99 corridor are entirely under provincial jurisdiction, it is unlikely that the province would fund any major capital projects at the full 100%, as they would expect multiple partners to contribute.

TransLink

Another option for funding source is the Major Capital Improvement Program of TransLink. In order to pursue this funding from TransLink, Blundell Road would need to be included in the Major Road Network (MRN). Furthermore, TransLink's Strategic Transportation Plan (STP) would also need to recognize the proposed improvements on Highway 99 as part of the regional priorities. Once these conditions are satisfied, further discussions would be required possibly involving the province, TransLink and the City to negotiate on the appropriate funding arrangement. To this end, staff will continue to work towards submitting Blundell Road to TransLink as an addition to the Major Road Network, as well as the recommended

improvements at the Blundell Road and Steveston Highway interchanges as a regional priority in the upcoming review of TransLink's STP.

Richmond Roads DCC

The current Roads DCC funding level has been declining due to the drop in development activities over the past several years. Therefore, the Roads DCC cannot be considered as the sole source of funding for the proposed improvements of this magnitude. The City's Roads DCC could be considered only as a City's share for the improvement costs, and the amount is expected to be a portion of the total cost possibly to be accumulated over several years.

Public-Private Partnership

Currently, new developments in the area of southeast Richmond only contribute towards roadway infrastructure improvements mostly through the Roads DCC. In light of the apparent benefits of the proposed improvements on Highway 99 to the adjacent developments, there exists a potential for private investments into funding the capital costs of these improvements as a public-private-partnership (P3's).

P3's can be described as an arrangement between the public and private sector for the purpose of providing public infrastructure, among other things, traditionally provided by the public sector. P3's recognizes that both the public sector and the private sector have certain advantages relative to the other in specific aspects of project delivery. By allowing each sector to do what it does best, public infrastructure can be provided in the most economically efficient manner.

A public-private-partnership (P3's) can therefore be considered as an option for funding and delivering the Blundell Road and Steveston Highway improvements. This approach would require further dialogue with the affected land owners and developers in the area and other potential private partners with a view to exploring their expectations of the return of investments on these improvements.

The mechanism of this or other possible funding strategies, as presented above, is proposed to be explored further in the next phase of this project.

6. Recommendations for Next Steps

It is recommended that the potential funding strategies as described above involving all levels of government and the private sector be pursued by:

- Submitting Blundell Road to TransLink as an addition to the regional Major Road Network;
- Submitting the improvements of Blundell Road Interchange and Steveston Highway Interchange as regional priorities in the upcoming review of TransLink's Strategic Transportation Plan;
- Submitting the above improvements to TransLink as candidate projects to be considered under the Major Capital Improvement Program;
- Carrying out discussions with the adjacent land owners/developers benefiting from the proposed improvements for potential P3's; and

- Conveying the need for the recommended improvements to TransLink, the Ministry of Transportation, local MLA's, local MP and the Minister responsible for Transportation with a view to securing capital funding from these senior governments.

It is also proposed that staff continue to work with the Ministry of Transportation and TransLink to advance the Blundell Road and Steveston Highway Interchange improvements towards the implementation phase by jointly addressing the outstanding design issues in conjunction with the discussions on funding.

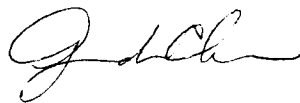
Financial Impact

There is no immediate financial impact at this time.

Conclusion

Accessibility to the Highway 99 system is critical in supporting the existing and future industrial developments in the southeast Richmond area. Improvements to the road network with a new Blundell Road Interchange, associated road works and twinning of the Steveston Highway Overpass are important in supporting the growing industrial lands in the area and to ensure that these developments continue to be viable. The proposed improvements are also required to address a range of operational and safety issues, many of which are affecting the integrity of the Highway 99 system.

In recognizing the overall benefits of the proposed improvements, it is proposed that staff continue to work closely and collaboratively with the Ministry of Transportation and TransLink to advance these improvements further towards the implementation phase in a timely manner. This would require all three jurisdictions to address the outstanding design related issues and more importantly, develop a funding strategy possibly involving private partnership.

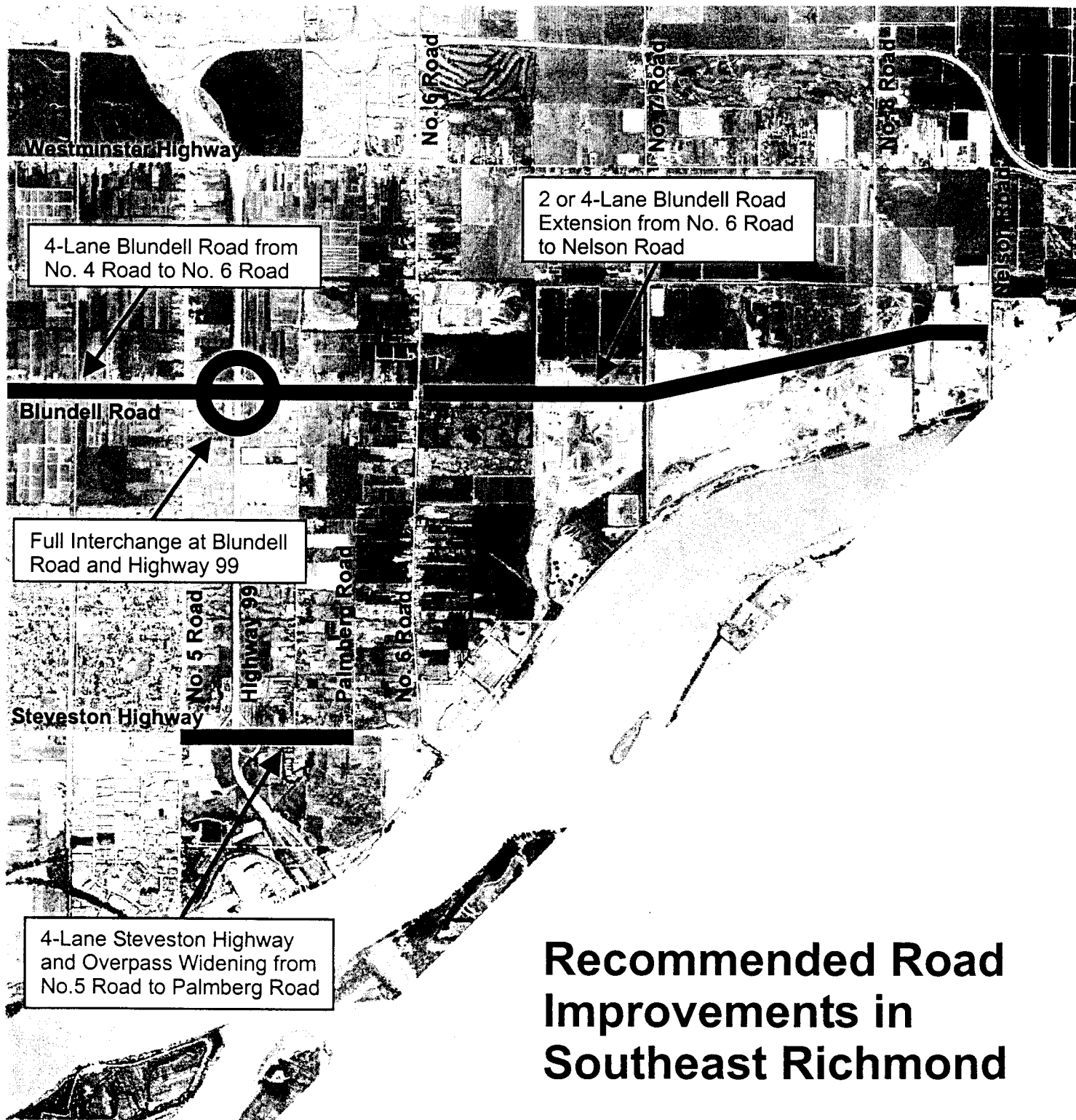


for Victor Wei, P. Eng.
Manager, Transportation Planning



for Donna Chan, P. Eng.
Transportation Engineer

DC:lce



Recommended Road Improvements in Southeast Richmond