CITY OF VANCOUVER | 125 YEARS

MEMORANDUM

April 7, 2011

TO: Mayor & Council

CC: Penny Ballem, City Manager
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Mairi Welman, Director of Communications
Janice MacKenzie, Acting City Clerk
Peter Judd, General Manager of Engineering Services

FROM: Jerry Dobrovolny, Director of Transportation
Brent Toderian, Director of Planning

SUBJECT: Viaducts Study Update

Mayor and Council, we are sending this memo to provide you with an update on the Georgia and Dunsmuir Viaducts review, in anticipation of the panel discussion on this topic, which will be hosted this evening (April 7, 2011) by SFU City Program.

The first phase of the review is well underway, with preliminary consultant reports being prepared on soil and structural conditions, as well as transportation conditions and potential impacts of capacity changes on the viaducts.

BACKGROUND

On November 19, 2009, Council approved a motion requesting staff to report "on the potential costs and benefits to the City of removing or converting the Georgia and Dunsmuir Viaducts, including the financial impact, the consequences for managing contaminated soils, urban design considerations, and the need to assure appropriate transportation impacts and connections, especially for rail and goods movement, that support the City's sustainability objectives."

Subsequently, on June 24, 2010, Council approved the undertaking of and funding for the first phase of the study, which is the subject of this memo. The scope of the first phase of study includes a transportation analysis, soils assessment and high-level structural review.

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TECHNICAL REVIEWS

In late 2010, staff retained Halcrow Consulting through a competitive bidding process to undertake the technical studies for this project, and Halcrow subsequently retained two sub-consultants to undertake soils and structural reviews. Preliminary reports from these consultants are now being finalized.

Transportation Review

Combined, the viaducts carry approximately 43,000 vehicles per day including about 700 trucks, which is approximately 15% lower than what was observed 15 years ago. There are no bus services currently on the viaducts; however, the Expo SkyTrain Line runs adjacent to the western ends of the structures.

The transportation review concludes that there is typically some unused road capacity during peak periods on most of the parallel arterial streets, such as Expo and Pacific Blvds, Pender St, Hastings St, Cordova St and Water/Powell Sts. These parallel streets could likely accommodate some diverted traffic generated from partial or complete removal of the viaducts.

There are approximately 2,000 cyclists using the Dunsmuir Viaduct bike lane on a peak summer day. The volume of pedestrians is quite low. A survey of cyclists and pedestrians using the viaducts, conducted for the purposes of this review, indicates that most cyclists and pedestrians are travelling between Downtown and the neighbourhoods just east of the viaducts, namely Strathcona and Grandview-Woodlands.

The transportation review is considering the feasibility and potential impacts of three viaduct removal concepts, as follows:

- Removal of 20% of the viaducts
- Removal of 50% of the viaducts
- Complete removal of the viaducts

Preliminary analysis is now complete and summarized briefly below. Further analysis will be required to refine the preliminary conclusions, consider additional factors and incorporate the findings into the Transportation Plan update commencing in May 2011.

20% removal

This removal option would entail *partial removal of the viaducts at their extreme east ends.* In this case, both viaducts would be brought to grade at and intersect with Main St. This modification would present a significant opportunity for land development on existing land occupied by the viaducts.

As discussed previously, the analysis indicates that there is likely residual capacity on the remaining road network at the present time to achieve 20% removal of the viaducts in the near term. This analysis assumes that existing vehicle volumes remain stable or continue to decrease. This modification would facilitate improved walking and cycling connections to existing bike and pedestrian networks at Main St, with automobiles using a new two-way connection on Prior St between Main St and Gore St.

50% removal

This removal option would involve removing half of the transportation capacity, which could entail, *removing one of the viaducts and converting the remaining structure to a two-way road.* This option would also offer significant development potential.

Although the findings are subject to further refinement, as well as complete analysis of factors other than transportation, the preliminary transportation analysis suggests that 50% removal of the viaducts may be achievable in the medium term (10-15 years) without significant impacts to the transportation network. The conclusion assumes that currently planned transit investments (e.g., Evergreen Line, Broadway-UBC Line, Hastings B-Line) are implemented within this timeframe in order to diminish the street transportation demand. Trucking and cycling connections into and out of Downtown would be preserved with a single viaduct remaining in place.

Complete removal
Complete removal of the viaducts (or partial removal with conversion of the remaining structure to linear open space) is achievable from a structural standpoint and would maximize development potential on the residual lands.

The preliminary transportation analysis, also subject to further refinement and analysis of non-transportation factors, indicates that complete removal of the viaducts may be feasible in the long term given current transportation trends (declining auto travel and increasing transit, walking and cycling into Downtown) and assuming ongoing significant investments in parallel and other complementary regional transit services. This would include all the transit initiatives required for the 50% removal option and in addition continued expansion of the Expo and Millennium lines, rapid bus and potentially a downtown street car. This option requires the most aggressive investments in public transit and also requires significant further analysis in regard to sustainability of goods movement and the feasibility of absorbing even the reduced vehicle traffic into the street network.

Soils Review
The soils review is consolidating historical geotechnical information from the viaducts area and is including new soil sampling for sites at the east end of the structures. The soils review will identify any contamination issues and high-level estimates for remediation.

Structural Review
The structural review will identify any structural issues with the existing viaducts, as well as high-level estimates, benefits and constraints for various removal options.

PANEL DISCUSSION
The SFU City Program will host a panel discussion on the future of the viaducts at SFU Harbour Centre on April 7, 2011 at 7 PM. The forum will initiate public discussion on the potential impacts of modifications to the viaducts. Peter Judd will introduce the topic of discussion and review experiences from other cities that have removed elevated highway infrastructure. Several staff will also be in attendance. David Turner of Halcrow Engineering will present the analytical framework as reviewed above and there will be a panel who will discuss the opportunities those options present.
The confirmed panelists are:

- Bing Thom, architect
- Larry Beasley, planner
- Bernie Magnan, economist

COUNCIL REPORT
Staff are preparing a full report on Phase 1 of the viaducts review for presentation to Council in May 2011. This report will summarize the findings of Phase 1 of the review in more detail and recommend next steps.

If you have any questions about Phase 1 of the viaducts review, please feel free to contact either of us.

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