Date: June 30, 2000

TO: **Board Members - Parks and Recreation**

FROM: **General Manager - Parks and Recreation**

SUBJECT: **STANLEY PARK CAUSEWAY REDEVELOPMENT UPDATING REPORT**

RECOMMENDATIONS

A. **THAT the Board reaffirm its support for the reconstruction of the Prospect Point overpass as approved on January 31, 2000.**

B. **THAT the Board approve the redesign concept for the Chilco pedestrian underpass.**

C. **THAT the Board approve the design of the new bus loop at the Children's farmyard.**

D. **THAT the Board approve the electrification of the transit line extension to the Children's Farmyard bus loop.**

POLICY

The policies underlying the above recommendations are contained in the approved Board Report of January 26, 2000 which is attached as Appendix 1 for reference.

BACKGROUND

The causeway reconstruction is proceeding with the new west sidewalk and curb nearing completion.

The design for the "S" curve, Chilco pedestrian underpass and the new bus loop have reached concept completion.

In the process, a few issues have arisen where the confirmation of the Board's position will speed resolution of design differences.

DISCUSSION

A. The Heritage Commission wants the BC Transportation Financing Authority (BCTFA) to pursue a different solution to the widening of the Prospect Point overpass which would entail creating additional portals through the wing walls to accommodate the bicycle and pedestrian pathways. City Council, on May 16, 2000 responded to this request as follows:

"1. THAT Vancouver City Council support in principle the retention of the Prospect Point Bridge.
2. THAT the City enter into discussions with the Board of Parks and Recreation and with the Province to explore options for retaining the Prospect Point Bridge.
3. THAT the additional cost of approximately $1.5 - 1.9 million to retain the Prospect Point Bridge be borne by the Province.
4. THAT, in the event the Prospect Point Bridge cannot be saved, Council would like the visual impacts of the existing bridge maintained in the design and construction of a new bridge."

The salient points are listed below:

1. The overpass is not a listed nor a designated heritage structure.

2. The overpass is owned and maintained by the Provincial Government, not the Park Board or the City.

3. The Heritage Commission proposal would more significantly alter the appearance of the existing overpass than the current BCTFA design, which would retain the solid wing walls and widen the current single arch.

4. The relocated sidewalks/bikeways would require significant cut backs in the existing slopes on either side of the overpass for a distance of approximately 60 meters in each direction. The current slopes cannot be steepened without the addition of major wing walls, which would create a "freeway" look in Stanley Park. Hence this current design alternative would see the cutting down of 30 major trees.

5. The Heritage Commission alternative would cost at least two million dollars more than the currently approved solution. It is unresolved which government would pick up the cost of this premium.

For the above reasons neither Park Board nor Engineering Department staff support the Heritage Commission alternative, details of which are included in Appendix 2.

B. The design for the Chilco pedestrian underpass is being driven by Park Board programmatic

requirements which entail the following:

1. reduction of the approach grades to the underpass to achieve a maximum slope of 4% and a desired slope of 3%. This is to create a safe passage for unskilled rollerbladers who are seriously challenged by downhill slopes. The recently built English Bay bikeway/rollerblade route has a 3% slope and is considered generally acceptable.

2. increase in the vertical clearance in the underpass from the current 2.3 meters to three meters. This will permit the passage of service vans and the Police Mounted Squad. It will also significantly improve the aesthetics of the underpass for its users by creating a brighter environment with more open site lines through the structure. This added sense of safety was a significant concern to those who attended the project open houses.

   The design concept which will be presented at the July 10 meeting meets the above criteria while also addressing bicycle routing concerns, service needs for the chlorination station, preservation of the Lost Lagoon Nature House, accommodation of Greater Vancouver Regional District pump station, redesign of the Devonian Park plaza and subtly creating a gateway image for the Park and the City.

C. The new permanent, year round bus loop, replacing Chilco, will be located in the parking lot immediately behind the Pavilion. This offers the advantages of a shorter walk for transit users to the major Park attractions and cleanly separates the bus traffic from private vehicle parking movements. Plans will be presented at the July 10 meeting.

D. Inherent in the above design solutions is the assumption of the reinstatement of trolley buses on Georgia Street and the extension of their routes into Stanley Park to the new bus loop. This will entail adding trolley poles and wires through the Park entrance and up Pipeline Road through the Rose Garden. This has created a conflict between aesthetic and environmental rationales. Electric buses are quiet and non-polluting. This is of particular importance when one considers a bus loop in the park where vehicles collect and sit with their engines running. On the other hand, electric trolley buses require poles and wires infrastructure which have a visual impact on landscapes like the Rose Garden. The public, as reflected in comments at the two open houses, ranked the trolley wires as their highest concerns. The visual impact of the poles and wires in the Rose Garden is also a concern with the Horticultural staff.

   In spite of the above this report supports the trolley wire installation for the following reasons:

   1. As stated, trolleys are more environmentally acceptable.

2. The region has just made a major financial commitment to stay with trolleys by deciding to replace the existing fleet with new trolley buses.

3. Natural gas buses are not seen as a reasonable alternative by TransLink as indicated in the attached portion of a letter from their planning section (Appendix 3).

4. If new technology does appear and trollies are no longer required, the poles and wires can be removed.

5. Electrification in itself will require no tree removal, although some limbing up and pruning to existing trees will be required.

CONCLUSION

The overall project is moving ahead and is respecting the agreed to multi-agency parameters of the Stanley Park Causeway Term Sheet (see Appendix 1). With the Board providing clear direction on the above discussed four design issues, the project can move forward to a timely completion.

Prepared by:

Stanley District
Board of Parks & Recreation
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JL:ss
Attachments

Appendix Three

Extract from Letter form G. Leicester, Manager, Implementation Planning, Translink

Re: Natural Gas Buses

"Our experiences with operating natural gas buses are as follows:

Currently TransLink operates 50 natural gas buses out of a fleet of 1,100 buses. The remaining 1,050 include 244 electric trolleys and over 800 diesel buses. Natural gas buses are currently stationed in Port Coquitlam, the only depot set up to accommodate natural gas buses. The depot includes a high speed fueling facility as well as special tooling required to repair natural gas buses. The 50 natural gas buses are currently used on relatively light duty cycle routes in the Tri-Cities and Maple Ridge/Pitt Meadows. The location of the depot does not lend itself to the operation and maintenance of routes in the City of Vancouver without significant deadhead and travel time costs to TransLink.

TransLink is currently not planning to acquire anymore natural gas buses. Experience with operating the buses indicates that they have higher operating and maintenance costs and suffer more frequent breakdowns than diesel or trolley buses. Much of the problems stem from the temperature that natural gas combusts, which results in more frequent burnouts of valves and other parts. Because of the volatility of the fuel, there is an added requirement for specialized detector devices on the buses as well as special spark free tooling. The former in particular is subject to failure causing reliability problems that lead to more frequent service disruption to customers. Finally because of the weight of the fuel tanks, natural gas buses must be used on relatively light duty routes because passenger capacity is typically 15% lower than diesel or trolley buses. The higher weight of the vehicles also results in more frequent brake replacement and stresses on the frames of the bus. CNG is cheaper than diesel fuel, but requires 20% more to operate the same amount of time.

Insofar as emissions are concerned, natural gas buses emit considerably less particulate matter than diesel buses, due to a more efficient burning cycle. On the other hand they produce roughly similar amounts of NOx and CO_2 to the latest version of diesel buses and roughly double the amount of carbon monoxide. From a noise perspective, they produce about 75-dba compared to less than 70-dba for an electric trolley. Trolley buses by comparison are the only true pollution free vehicle in Vancouver. We believe the overhead wires are a small price to pay given the benefits of clean air and reduced noise. TransLink will work very closely with the Park Board to ensure that trolley overhead wires are installed in the most sensitive way possible."