

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE  
(TRANSPORTATION AND TRANSIT DIVISION)

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

Re: BC Transportation Financing Authority (BCTFA) High Occupancy Vehicle Program

RECOMMENDATIONS:

1. **THAT** Council approve in principle the concept of High Occupancy Vehicle lanes in the City of Burnaby subject to a vehicle occupancy requirement of 3+ persons and HOV operation during peak periods only.
2. **THAT** Council approve in principle the approach to the development of a bus lane on Willingdon Avenue as outlined in Section 2.3 of this report, subject to a review of the requisite planning study for this initiative.
3. **THAT** the BC Transportation Financing Authority be requested to interim fund the cost of the planning studies for the Willingdon bus lane.
4. **THAT** copies of this report be forwarded to L. Holowachuck, Director, Highway Planning, BCTFA, W. Lambert, Director, Transportation Planning, BC Transit and D. Harvey, Campus Development, BCIT and the BCIT Student Association, 3700 Willingdon Avenue, Burnaby.

REPORT

The Traffic and Transportation Committee (Transportation and Transit Division), at its meeting held on 1998 May 12, adopted the attached report advising of the BC Transportation Financing Authority (BCTFA) program to develop and fund a network of High Occupancy Vehicle lanes in the Greater Vancouver Region and to advance for consideration feasibility studies for improved bus service and a bus lane in the Willingdon corridor.

MEMBERS:

Mr. Lyle Boivin  
Mr. Raymond Lupien  
Mr. W.B. Roxburgh  
Ms. L. Tatangelo

Respectfully submitted,

Councillor D. Evans  
Chair

Councillor J. Young  
Vice Chair

Councillor N. Volkow  
Member

: COPY - CITY MANAGER  
- DIRECTOR ENGINEERING  
- DIRECTOR FINANCE  
- DIR. PLNG. & BLDG.

**TO:** CHAIR AND MEMBERS  
TRAFFIC & TRANSPORTATION COMMITTEE 1998 May 08  
(Transportation and Transit Division)

**FROM:** DIRECTOR PLANNING & BUILDING OUR FILE: 08.640

**SUBJECT:** BC Transportation Financing Authority (BCTFA) High Occupancy Vehicle Program

**PURPOSE:** To advise the Traffic and Transportation Committee of the BC Transportation Financing Authority (BCTFA) program to develop and fund a network of High Occupancy Vehicle lanes in the Greater Vancouver Region and to advance for consideration feasibility studies for improved bus service and a bus lane in the Willingdon corridor.

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## REPORT

### 1.0 BACKGROUND

The BC Transportation Financing Authority (BCTFA) has approached the City of Burnaby with a program to fund High Occupancy Vehicle (HOV) lanes on major roads throughout the Greater Vancouver Region. As part of a ten-year program, the BCTFA will cost share with municipalities carpool lanes or bus lanes proposed for roads which are currently municipal roads or roads which will become municipal roads as part of the Greater Vancouver Transportation Authority (GVTA) Major Roads Network. The BCTFA has summarized their proposals in the attached Executive Summary (*see Attachment A*) of a consultant's report entitled "High Occupancy Vehicle Network Plan and Implementation Strategy." The BCTFA has requested the following input from the City on the HOV Plan:

- approval-in-principle of Council of the concepts and principles of the HOV Network Plan
- staff comments on the network of carpool lanes and transit priority corridors within the City's jurisdiction
- approval-in-principle of Council for the projects proposed by the BCTFA to be initiated during fiscal year 1998/99.

In response to this request, this report provides an overall review of the HOV Plan and Implementation Strategy for the consideration of the Traffic and Transportation Committee with a more immediate focus on the Willingdon HOV/bus lane, a project which could be initiated in 1998/99 with planning studies and implemented in a number of phases over the next few years.

### 2.0 Network Development Principles

The BCTFA Report identifies a number of principles as defined in *Attachment A* to guide the development of HOV facilities in the Greater Vancouver Region, and requests a Council resolution of Approval-In-Principle of these principles. To advise Council in this matter, staff have reviewed the Network Development Principles relative to expressed Council policy on HOV facilities, as defined in the Burnaby Transportation Plan and other Council resolutions on the subject. These Council resolutions reflect on the following BCTFA Network Development Principles:

- **Focus on bus-only facilities in the urban core, 3+ (persons occupancy) in the inner suburbs and 2+ (persons occupancy) in the outer suburbs, although a higher designation may be warranted on specific facilities in the 3+ and 2+ zones for user consistency and continuity reasons.**

On 1997 September 29 Council adopted the following resolution with regard to the occupancy requirements for HOV lanes in Burnaby:

" That Burnaby Council reaffirm its support for a minimum vehicle occupancy standard of three persons per vehicle with respect to the Highway 1 HOV lanes following completion of the highway widening improvements, and further, that the Provincial government be requested to maintain the minimum standard of three occupants per vehicle for HOV lanes with respect to the Highway 1 project and further, that Burnaby Council urge the GVRD to reaffirm its policy of three occupants per vehicle as the minimum standard for HOV lanes throughout the region."

Although this BCTFA objective shows a preference for 3+ as an occupancy requirement, it makes allowance for 2+ in some circumstances. In view of Council's policy on the 3+ occupancy requirement, a 2+ occupancy level may not be acceptable, even on the basis of user consistency or continuity between municipalities. However, a lower occupancy requirement than 3+ might warrant consideration as part of an initial phase-in period to build usage to a 3+ level.

- **Favour 24-hour HOV operation, except where functional viability or competing requirements for parking or loading preclude this.**

Council policy as defined in the Burnaby Transportation Plan is to promote **peak period** usage of High Occupancy Vehicles and to develop an HOV network which will designate roads for use by carpools and buses **during peak periods**. This policy reflects a recognition that HOV lanes are provided to increase people moving capacity during periods of substantial delay due to traffic congestion on the road system. At other times, HOV lanes are unlikely to be effectively utilized and therefore would not be warranted. Currently, Highway 1 is probably the only facility where off-peak HOV operation would be warranted by either traffic delay or high HOV usage.

- **Designate future HOV corridors/and facilities to provide the basis for access management and land use controls in anticipation of implementation.**

Council cannot commit in advance to blanket restrictions on their zoning authority, but have adopted a policy in the Burnaby Transportation Plan to reserve rights-of-way for rapid transit and HOV facilities in the process of review of specific development proposals.

In summary, Council policy as defined in the adopted Burnaby Transportation Plan and other Council resolutions supports the development of HOV lanes in the City of Burnaby subject to an occupancy requirement of three or more persons per vehicle and operation during peak periods only. These conditions, while not unduly restrictive, should be reflected in the approach to the development of HOV lanes in Burnaby.

### 3.0 Implementation Strategy

#### 3.1 Approach

The Implementation Strategy proposes that the concept of High Occupancy Vehicle lanes recognize and adapt to the specific needs and requirements of local areas of the Greater Vancouver Region as follows:

- **urban core** - focus on facilitating transit movements through measures such as bus-only lanes, queue jumpers and bus-activated signals etc.
- **inner suburbs** - combination of transit measures in corridors with high transit volumes and 3+ person carpool lanes in corridors with lower transit volumes
- **outer suburbs** - carpool lanes for transit and 2+ carpools

As an inner suburban area, Burnaby would be eligible for funding of HOV facilities for transit only in some corridors and for carpools in others, depending upon the level of transit service in the corridor. These proposals are outlined in Section 2.2 below.

#### 2.2 Recommended Strategy

Following an evaluation of three network strategies, one of which focused on transit, the other on carpools and a more balanced approach combining transit priority treatments in the core area with carpool treatments on the radial corridors in the inner and outer suburbs, the Recommended Strategy proposes the balanced approach, as shown in the network in *Figure 1 attached*. The balanced network identifies a number of corridors in Burnaby for development as HOV facilities in the first five years, as shown in *Figure 2 attached* and within a 6-10 year time frame as follows:

(i) Recommended Investments - First Five Years

- Lougheed Highway Transit Priority Lane
- North Road Transit Priority Lane
- Highway 1 Carpool Lane (under construction)
- Willingdon Transit Priority Lane (Deer Lake Parkway - Lougheed Hwy.)
- Boundary Road Carpool Lane
- Highway 1 On-Ramp Queue Jumpers

(ii) Recommended Investments - Years Six to Ten

- Willingdon Transit Priority (Lougheed-Hastings)
- Holdom Carpool Lane
- Marine Way Carpool Lane
- Gaglardi Way Carpool Lane

Some of these roads are identified in the High Occupancy Vehicle Network in the Burnaby Transportation Plan as shown in *Figure 3 attached*, but others including Willingdon Avenue, North Road, Boundary Road and Holdom Avenue are not currently endorsed by Council for development as HOV lanes, and amendments would be required to incorporate these roads as part of the HOV network in the Transportation Plan. In reviewing the BCTFA "balanced" HOV Network, the only facilities which could be appropriate at this time for addition to the HOV network in the Burnaby Transportation Plan are Willingdon Avenue and North Road. As discussed in the following section of this report, Willingdon Avenue is the priority for the BCTFA and BC Transit for funding as an HOV/bus lane over the next two years, and it is a City of Burnaby priority for development as a major transit corridor linking town centres. North Road is currently under development by BC Transit as a rapid bus route between Coquitlam and New Westminster which would be a precursor to the development of LRT in this corridor by 2008.

To bring the proposed BCTFA HOV network into conformance with the Burnaby Transportation Plan, the Transportation Plan would need to be amended to include Willingdon Avenue (Kingsway-Hastings) and North Road (Lyndale to the Brunette River) in the HOV Network. It is suggested that City staff continue to work with the BCTFA and ultimately the GVTA to ensure consistency between the BCTFA HOV Network, the GVTA Major Roads Network and the Burnaby Transportation Plan HOV network.

### 3.3 Willingdon Bus Lane

- Project Description

The immediate priority for both the BCTFA and BC Transit in the short term (1-2 years) is the development of a bus lane on Willingdon Avenue between Highway 1 and Deer Lake Parkway/Moscrop Street. This project would ultimately involve conversion of the curb lane on Willingdon currently available as a parking lane for BCIT students to a designated lane for buses. However, during the phase-in period, until there are sufficient buses using the Willingdon corridor to warrant a full bus lane, the proposed bus lane could be available initially for a broader range of HOV's possibly including vanpools and carpools. As transit service in the Willingdon corridor is improved with more frequent service and possibly larger capacity buses, the use of the lane by vanpools and carpools could be phased out. This project supports the objective of the Burnaby Transportation Plan to provide higher capacity, frequent transit service connecting designated town centres in Burnaby. As rapid transit, in the foreseeable future, will connect all town centres except Brentwood to Metrotown, a form of higher capacity express bus service using HOV lanes and other transit priority measures is needed to serve the Willingdon Corridor connecting Metrotown, BCIT, the developing Brentwood Town Centre (including an LRT station) and in the future, a potential West Coast Express (WCE) station located at the north end of Penzance. It is therefore recommended that Council approve- in- principle this project in conjunction with the BCTFA HOV Program.

- Impact on BCIT

It is recognized that the development of a bus lane on Willingdon will have an impact on the availability of on-street parking for BCIT students on Willingdon Avenue during peak periods. However, provision of the bus lane will also require the substantial upgrading of transit service in the corridor, not only to provide an attractive alternative to the private vehicle for BCIT students, but also to provide a sufficiently frequent transit service to warrant a bus lane and the attendant removal of on-street parking on Willingdon.

In discussions with City and BC Transit staff on the concept of a Willingdon bus lane, BCIT has recognized the likelihood of phasing out on-street parking on Willingdon, but have also expressed a desire to encourage more trips by transit. Current BCIT proposals for improved transit service to the campus include the upgrading of bus stops, shelters and pedestrian facilities on

Willingdon, better transit connections to SkyTrain and the B-Line Rapid Bus, a new express bus service from the NE Sector, establishment of a WCE station in Burnaby and provision of a bus loop on campus. In response, staff have discussed with BCIT a phased program for implementation of the Willingdon bus lane, involving gradual removal of peak period on-street parking as transit service is increased in the corridor serving BCIT. This proposed process is intended to gradually reduce the need for on-street parking by shifting private vehicle trips by students to transit. Implementation of these transit initiatives will require the future support of the GVTA when it assumes of the responsibility for transit commencing April 1, 1999. In the interim, the proposed study phase of this project would enable the preparatory planning work to be undertaken.

It is also the view of staff that development of the Willingdon bus lane complements the provision of an Urban Trail on Willingdon as a means to change the character of this corridor from that of a major arterial for private vehicles to that of a people-moving corridor emphasizing alternative modes connecting town centres. To this end, staff would propose to work with the BCTFA and BC Transit in undertaking further studies to develop the Willingdon Corridor as a transit priority facility, and will report to Council on the outcome of this process prior to consideration of design, funding and implementation.

#### 4.0 Project Funding

The funding arrangements for HOV projects would be as follows, depending on the current and future jurisdiction of the roadway:

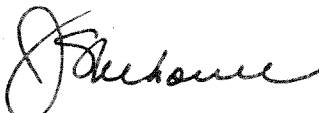
- **existing provincial highways remaining under Provincial control after Greater Vancouver Transportation Authority (GVTA) assumption of responsibilities** would be funded 100% by the BCTFA, as for example, Highway 1.
- **existing provincial highways to be downloaded to the GVTA** in the Major Road Network (MRN) would be funded 100% by the BCTFA until transferred, then cost shared 50/50 between the BCTFA and the GVTA, as for example, Lougheed Highway.
- **existing municipal roads to be uploaded to the GVTA Major Roads Network** would be 50% funded by the BCTFA prior to transfer to the GVTA and funded 50/50 by the BCTFA and the GVTA after transfer. The Willingdon Avenue HOV/bus lane would fall into this category.



It is assumed that the Willingdon bus lane would be funded by the BCTFA and the GVTA over the life of the project. However, the GVTA will not be established until April 1, 1999 and there are not readily available municipal funds for this project. It is therefore recommended that the BCTFA be requested to cover the estimated \$50,000 cost of the planning studies for this fiscal year.

**5.0 Conclusion**

The BCTFA is requesting that Council approve the concept of HOV facilities and the principles for implementation, and also endorse HOV projects proposed for implementation within a two year time frame. Subject to certain Council-established conditions regarding the implementation of HOV facilities, Council policy, as embodied in the Burnaby Transportation Plan, supports HOV facilities in principle. With regard to specific projects, the development of the Willingdon Corridor between Metrotown and Brentwood (and possibly further north to a future WCE station) as a transit priority corridor and Urban Trail facility is a necessary component of the City's plans to link the growing town centres in Burnaby with high capacity transit service and improved bicycle/pedestrian facilities. It is therefore recommended that approval in principle be given to this project to permit the BCTFA to budget for the initial planning studies required to confirm the viability of this project in the short term.

  
D.G. Stenson, Director  
PLANNING AND BUILDING

Attachment  
RG\sk

cc: City Manager  
Director Engineering  
Director Finance

