

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE  
(TRANSPORTATION AND TRANSIT DIVISION)

*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

RE: BURNABY BIKE ROUTES: BIKEWAYS AND SIGNING PROGRAM

RECOMMENDATIONS:

1. **THAT** Council approve an application to the forthcoming ICBC Bike Program for \$50,000 (\$25,000 Burnaby share) to implement a signing program for Urban Trails, Bikeways and Cycle Roads in Burnaby.
2. **THAT** staff be directed to seek public input on the Conceptual Bikeway Network prior to Council consideration of adopting the network into the Burnaby Transportation Plan.
3. **THAT** a copy of this report be forwarded to the Traffic and Transportation Committee (Traffic Safety Division) and the Bicycle Advisory Committee.

REPORT

The Traffic and Transportation Committee (Transportation and Transit Division), at its meeting held on 2001 February 14, received and adopted the attached report outlining the process for the public input and implementation stage of the Bikeway program and to request Council approval of an application for ICBC funding to develop a signing program for existing bike routes in Burnaby.

Respectfully submitted,

Councillor Nick Volkow  
Chair

Councillor D. Evans  
Vice Chair

Councillor B. Der  
Member

<p>:COPY - CITY MANAGER - DIRECTOR ENGINEERING - DIR. PLNG. &amp; BLDG. - DIR. PARKS, REC. &amp; CULT. SERV.</p>
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**TO:** CHAIR AND MEMBERS  
TRAFFIC AND TRANSPORTATION COMMITTEE  
(Transportation and Transit Division)

2001 February 27

**FROM:** DIRECTOR PLANNING AND BUILDING

**SUBJECT: BURNABY BIKE ROUTES: BIKEWAYS AND SIGNING PROGRAM**

**PURPOSE:** To advise Council of the process for the public input and implementation stage of the Bikeway program and to request Council approval of an application for ICBC funding to develop a signing program for existing bike routes in Burnaby.

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**RECOMMENDATIONS:**

1. **THAT** Council approve an application to the forthcoming ICBC Bike Program for \$50,000 (\$25,000 Burnaby share) to implement a signing program for Urban Trails, Bikeways and Cycle Roads in Burnaby.
2. **THAT** staff be directed to seek public input on the Conceptual Bikeway Network prior to Council consideration of adopting the network into the Burnaby Transportation Plan.
3. **THAT** a copy of this report be forwarded to the Traffic and Transportation Committee (Traffic Safety Division) and the Bicycle Advisory Committee.

**REPORT**

**1. BACKGROUND**

At its regular meeting of 1999 September 20, Council approved a process to develop a program for Bikeways in Burnaby. Bikeways are an intermediate level cycling facility between an Urban Trail, an off-street pedestrian and cycling path which serves the recreational cyclist, and a Cycle Road which provides an additional width in the curb lane of major roads for the more experienced regular cyclist.

Bikeways are on-street bicycle routes (using primarily local streets) similar in concept to the existing Alternate Cycle Roads like the Francis-Union Bike Route. This particular route provides an alternate route for cyclists to Hastings Street, an arterial which cannot be easily widened to accommodate cyclists on-street.

The Alternate Cycle Roads were developed as special purpose cycling facilities with a limited number of routes. However, the process outlined to Council in 1999 September envisioned the expansion of the alternate cycle road concept into a network of cycling facilities called Bikeways using local streets. This report outlines the process and work program for developing and implementing a Bikeway network and also identifies a signing program for the entire Bike Route network including Urban Trails, Bikeways and Cycle Roads.

## 2. EXISTING CYCLING SYSTEM

The Burnaby Transportation Plan provides three levels of cycling facilities so that the cyclist has a choice of route or portion of a route which best suits their needs based upon a range of factors including safety, traffic volumes and speeds, directness, fitness, confidence level, weather, time of day (night), etc. This fully integrated Cycling System, as defined in the Burnaby Transportation Plan, provides a range of cycling options as follows (*Figure 1 attached*):

- **Urban Trail (*Figure 2 attached*)** - primarily an off-street facility intended to encourage walking and cycling and provide access to major urban activity centres and parks (e.g., Burnaby Mountain Urban Trail). While Urban Trails are often costly and sometimes difficult to implement due to the lack of off-street right of way, they are a growing and important element of the bicycling network. Often, Urban Trails have been combined with on street bike routes to form continuous cycle routes (e.g., the North - South route utilises Sussex, a residential street, a short section of Wayburne which is a cycle road and a short section of Urban Trail).
- **Cycle Road** - provides wider curb lanes on major roads (e.g., Royal Oak between Oakland and Deer Lake Parkway). The Cycle Road Network (*Figure 3 attached*) as defined in the Burnaby Transportation Plan, shows roads which have been or will be widened to add 0.6 m. (2 ft.) on both curb lanes to accommodate on-street cycling. However, the network will take many years to implement as most arterial roads are already constructed to finished standard with no bike provision. Other roads in this category involve the rehabilitation of interim standard pavements which are being widened to provide a 7.7 m. (24 ft) instead of 6 m. (20 ft.) to accommodate bikes.
- **Alternate Cycle Road** - an on-street facility (on local streets) providing a bypass route where a Cycle Road is difficult to provide (e.g., Frances - Union Bike Route as an alternative to Hastings St.). Alternate Cycle Roads are well used and appreciated by the cycling community generating a desire for more routes than the three routes currently identified in the Burnaby Transportation Plan.

As the provision of Alternate Cycle Roads has been reactive and lacking an integrated vision, this report proposes to develop a network of Bikeways as a replacement for Alternate Cycle Roads which are developed singly as cycling bypass routes for major arterials.

## 3. BIKEWAYS

### 3.1 Objectives

Building more Bikeways to supplement the existing and planned Urban Trails and Cycle Roads would provide a lower cost and expeditious way to provide a more continuous and expansive network of bike routes in Burnaby. Lacking rights of way in the highly developed urban area, the City of Vancouver has opted for an approach to providing cycling facilities using existing local streets which have been traffic calmed. These on-street "Greenway" bike routes have been well utilized to the point where the cycling now accommodates 7% of all trips in the City of Vancouver.

### 3.2 Bikeway Route Planning

The 1999 September Council report proposed a two-step process to develop a Bikeways network. A conceptual flow chart for these two phases is shown in *Figure 4 attached*.

- **Concept Plan** - defines the objectives of Bikeways and their role in the Cycling System in Burnaby and identifies, for public input, a proposed network of Bikeways superimposed over the existing and future Urban Trails and Cycle Roads (*Figure 5 attached*).
- **Public Process** - would follow Council approval in principle of the Concept Plan. The concept plan would be displayed at four public open house events in each of the four quadrants of the City. The intent of the open houses would be to solicit public input regarding the objectives, routes and design standards for Bikeways. The results of the open houses and suggested changes to the Concept Plan would be reported back to Council for consideration prior to Council consideration of adopting the Bikeways component into the Burnaby Transportation Plan. Staff would also do a number of outreach presentations to key stakeholder groups within the community (e.g., BCIT, SFU, etc.) as part of this public process.

### 3.3 Route Implementation

Bikeways are a cost effective and relatively “easy to implement” cycling facility. In most cases, existing local streets would be used with the addition of minor traffic calming, if required, and signage to guide cyclists along the route. Priorities for implementation would be developed with the participation of the Bicycle Advisory Committee based on considerations of cycling needs, opportunities/constraints and budget.

For each specific route, a neighbourhood public process would be followed to solicit the views of the local community affected by the route and identify and address any concerns. Following this input, staff would develop a preferred alignment and costs for Council approval as a basis to apply for external cost sharing. As only shelf-ready projects would be eligible for senior government or other agency cost sharing, the final design work for a specific Bikeway route to be implemented in 2002 would be completed by the fall of 2001.

A flow chart for the implementation process is shown in *Figure 6 attached*.

#### 4. BIKE ROUTE SIGNING PROGRAM

While the City of Burnaby has completed a number of cycling facilities over the past few years including Urban Trails, Cycle Roads and Alternate Cycle Roads, few of these facilities are signed. As a result, cyclists travelling in Burnaby or through Burnaby are either unaware of the existence of bike routes or are uncertain how to use bike routes that do exist. More problematic from a safety perspective is the concern that motorists are unaware that the road on which they are travelling is also an on-street bike route or the upcoming intersection is a bike route crossing. There is also an opportunity to provide directional signing where bike routes intersect and to advise cyclists of points of interest and activity centres along or adjacent to bike routes in Burnaby.

It is proposed that the City make application to ICBC for a \$50,000 signing program (\$25,000 Burnaby share) for existing Bike Routes in Burnaby. This project will involve the following works as shown in *Figure 7 attached* :

- **Signing of the Urban Trails as “Shared Pathway”** cycling and pedestrian routes and stencilling of the cyclist and pedestrian symbol on all completed Urban Trail sections.
- **Roadside “Share the Road”** warning signs on all roads in the Cycle Roads network to advise motorists to watch for cyclists and encourage courteous driver/cyclist behaviour
- **Stencilling of the bike symbol on existing highways with emergency stopping lanes** which are also Cycle Roads. Initially, the cyclist symbol would be stencilled on the bike/emergency stopping lanes of the Barnet Highway and the Lougheed Highway (after reconstruction of the later road to accommodate the Millennium SkyTrain Line is complete).
- **Signing of Bikeways** such as the Francis/Union bike route and others to a similar standard as the Greenways in the City of Vancouver.
- **Information signing** to advise cyclists of the activity centres and points of interest relative to the bike route.

This work would be done by the City Engineering Signing Shop and Paint Shop. Council is requested to approve this application on the assumption that if the application is approved by ICBC, Council would reallocate \$50,000 from the 2001 Capital Program for Urban Trails with reimbursement from ICBC of \$25,000.

## 5. CONCLUSION

Burnaby is fortunate to have had the foresight to develop a multi-tiered selection of bike routes appealing to a wide range of user abilities and cycling needs and commit funding for Urban Trails and Cycle Roads. However, the focus of the cycling program over the next five years needs to change to that of developing a more continuous bike route network. This can be more readily by directing more resources to designating existing roads as a less costly and more easily implemented way of creating bike routes called Bikeways. Moreover, increased effort needs to be directed to broadening public awareness of the many cycling facilities that are available in Burnaby and enhancing cyclist safety by consistent and widespread application of signing.

This report recommends an approach to accomplish these objectives through the extension of the alternate cycle road concept to a network of on-street bikeways similar to the extensive network of Greenways in the City of Vancouver. With council approval the final designs for the Bikeways identified as priorities for implementation in 2002 would be undertaken in the summer of this year prior to applying for cost sharing in the fall of 2001. This report also recommends that the City take advantage of potential funding from ICBC for city crews to install appropriate signing and pavement marking on existing bike routes in Burnaby.















D.G. Stenson, Director  
PLANNING AND BUILDING

RG/sla  
Attachments

cc: City Manager  
Director Engineering  
Director Parks, Recreation and Cultural Services

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Type of Cyclist	Urban Trail (off-street)	Alternative Cycle Road	Cycle Road
<b>Recreational</b> <i>(Family)</i>			
<b>Commuter</b> <i>(Not So Confident)</i>			
<b>Commuter</b> <i>(Moderately Confident)</i>			
<b>Commuter</b> <i>(Very Confident)</i>			
<b>Recreational</b> <i>(Road Rider)</i>			

**LEGEND:**

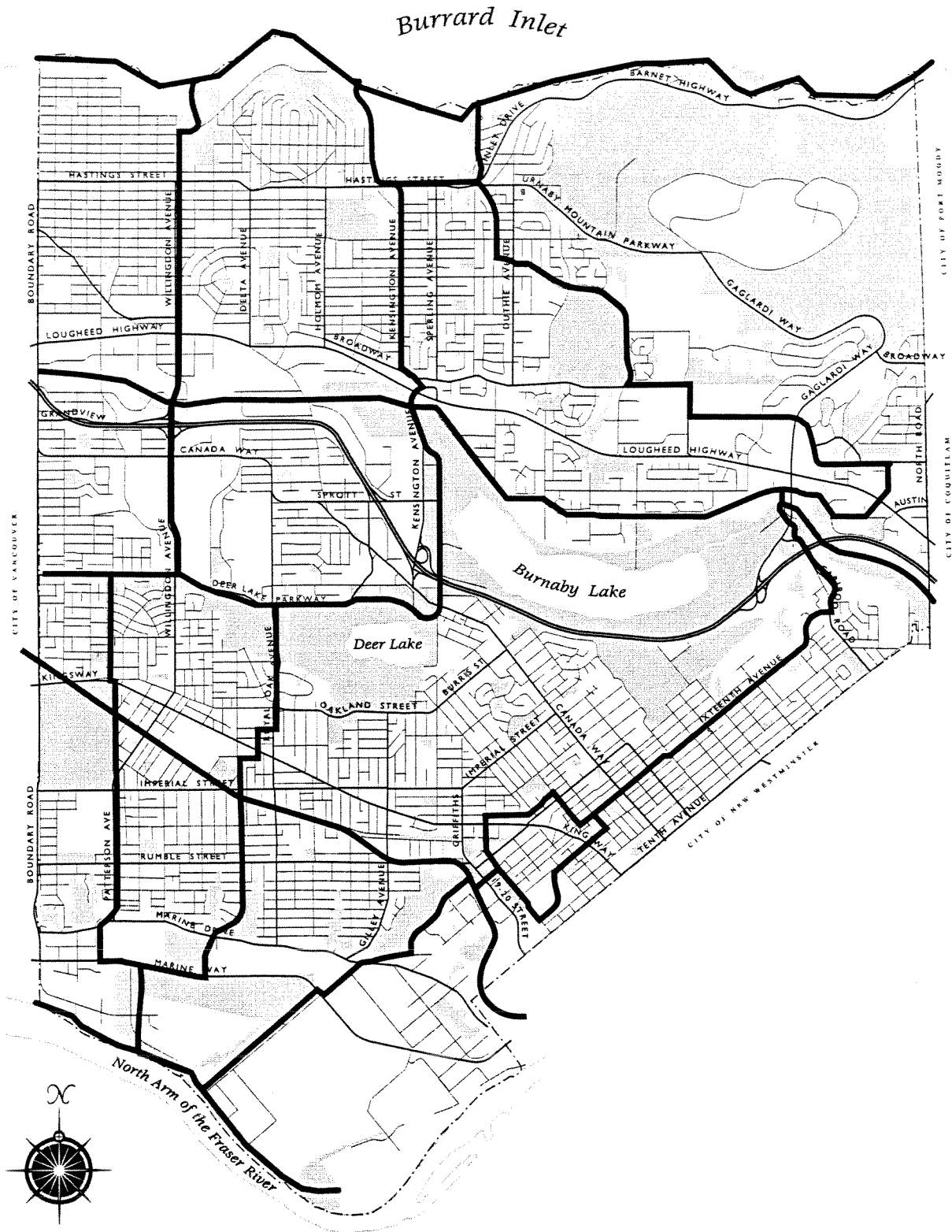


= 1<sup>st</sup> Choice  
(well suited)



= 2<sup>nd</sup> Choice

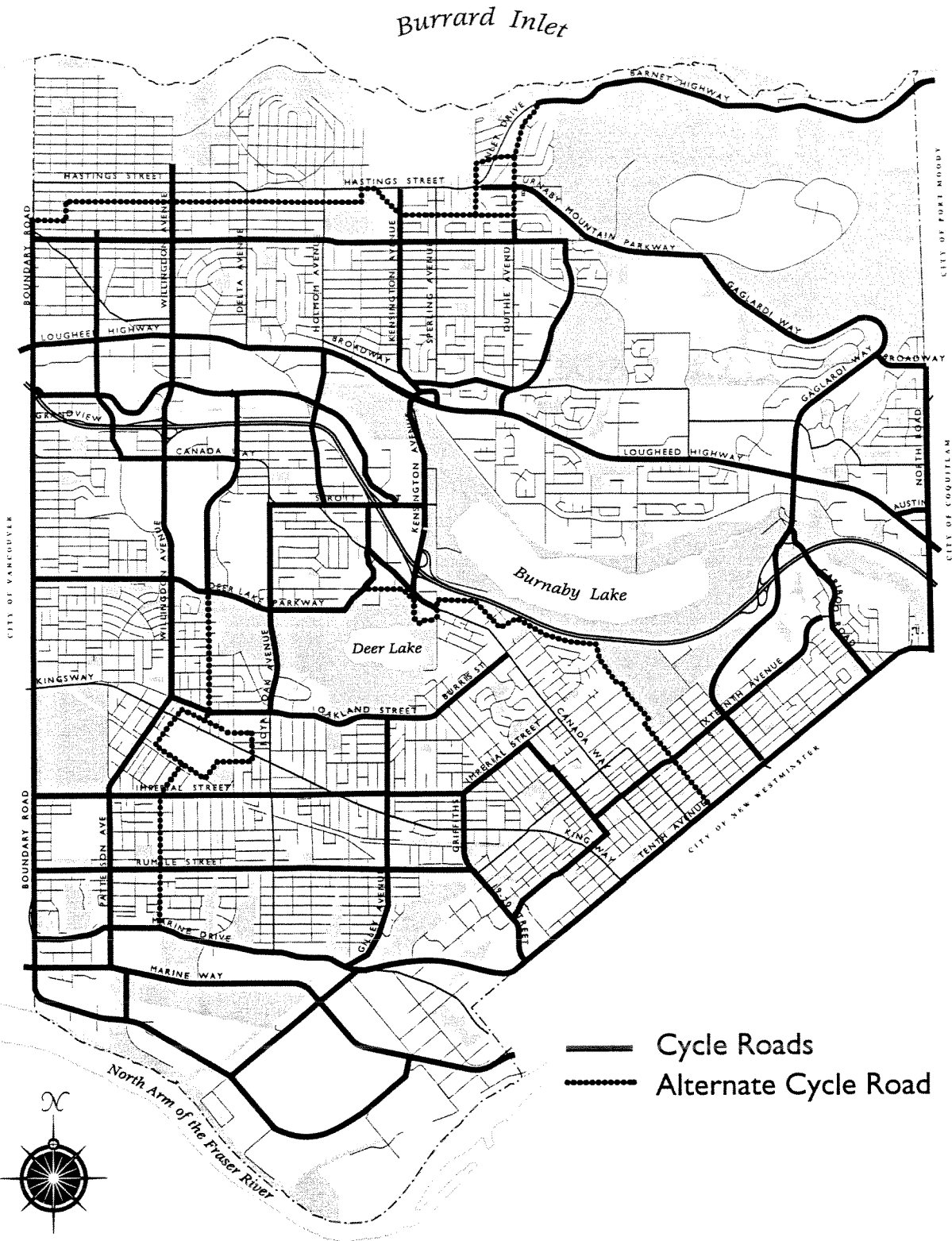
**Figure 1**  
Integrated Cycling System  
and Potential Users



**Urban Trail Network**

Figure 2

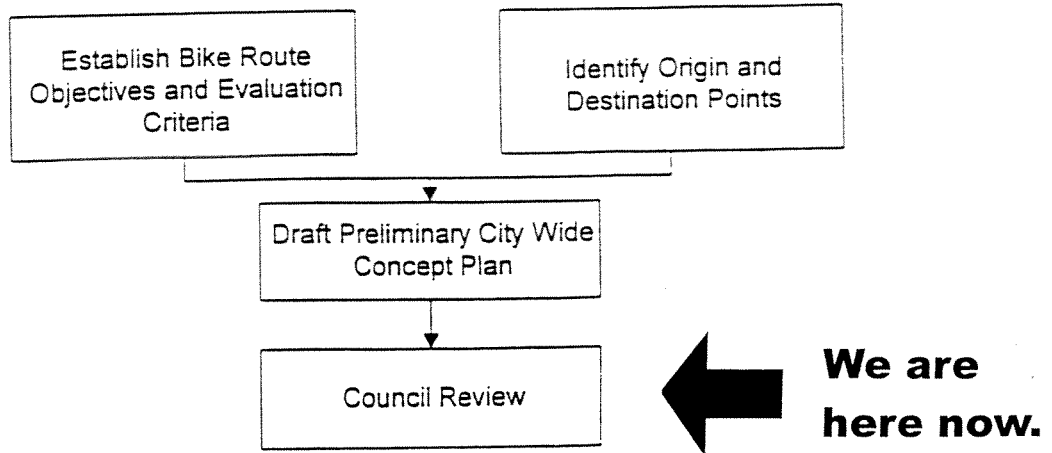




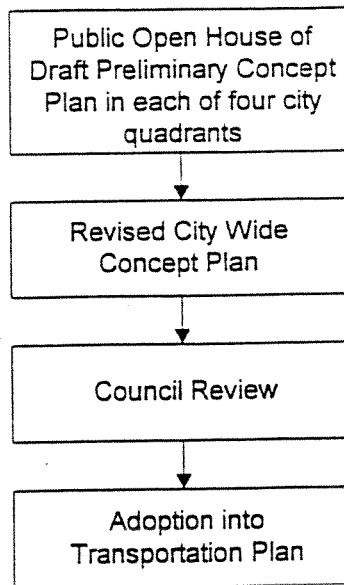
**Cycle Roads Network**

Figure 3

## PHASE I - PRELIMINARY CONCEPT PLAN DEVELOPMENT



## PHASE II - PUBLIC PROCESS



**Figure 4**  
**Cycling System Refinements**  
**to Transportation Plan**  
**Conceptual Flowchart**



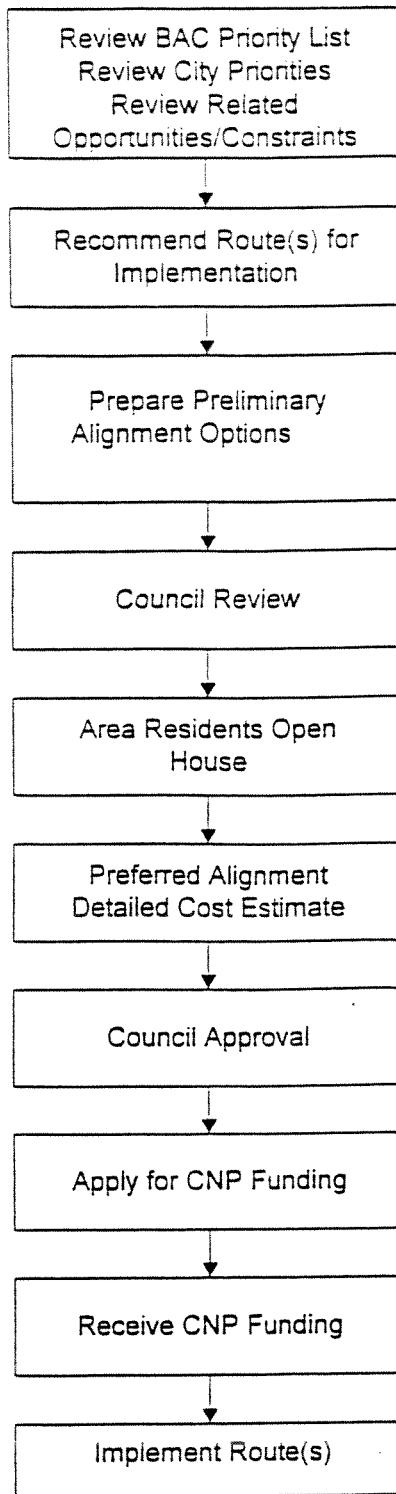






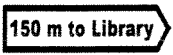


Figure 6  
Route Implementation  
Conceptual Flowchart

Type	Sign	Purpose	Urban Trails	Bike ways	Cycle Roads	
					bike lane	shared lane
Regulatory		Post mounted sign used to advise uses that are permitted on Urban Trails - to increase use, courtesy and safety.	✓			
Warning		Road side sign used to advise motorists to watch for cyclists and encourage safe, courteous motorist / cyclist behaviour. Promote cycling on specific roads.				✓
Guide and Information		Road side sign used to identify bike routes for cyclists as both a "reminder" sign and to guide the cyclist during changes in direction of route and intersections with other routes.	✓	✓	✓	
		Pavement marking used as a reminder to motorists to watch for cyclists and when combined with arrows can be used as a guide for cyclists.		✓	✓	
		Street signs identify the route to cyclist and remind motorists that bike may be encountered.		✓	✓	
		Additional signs at major cross-streets (hung from the traffic signal davit arm) to identify the bike route and warn motorists that bicycles may be encountered.		✓	✓	
		Information signs to advise cyclists where points of interest are relative to the bike route (particularly if they are close but not right on the bike route).	✓	✓		

**Figure 7**  
*Proposed Bike Route Signing*

