City of Burnaby

Meeting 2006 July 10

COUNCIL REPORT

TRANSPORTATION COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

B

SUBJECT: IMPLEMENTATION OF LAKES BIKEWAY

RECOMMENDATION:

1. THAT Council be requested to:

   a) Authorize construction of the Lakes Bikeway, as outlined in Section 4.0 of this report.

   b) Bring down a Capital Reserves Expenditure Bylaw in the amount of $556,500 (inclusive of 6% GST) to finance the on-street portions of this project.

   c) Forward a copy of this report to those who have corresponded with the City on this issue.

REPORT

The Transportation Committee, at its meeting held on 2006 June 28, received and adopted the *attached* report advising of the results of the public consultation process for the Lakes Bikeway, and making recommendations for implementation.

Respectfully submitted,

Councillor N. Volkow
Chair

Councillor S. Dhaliwal
Vice Chair

Councillor L. Rankin
Member

Copied to: City Manager
Director Engineering
Director Finance
Director Parks, Recreation & Cultural Services
City Solicitor
Director Planning and Building

City of Burnaby

Meeting 2006 Jun 28

COMMITTEE REPORT

TO:	CHAIR AND MEMBERS TRANSPORTATION COMMITTEE	**DATE:**	2006 June 22
FROM:	DIRECTOR PLANNING AND BUILDING	**FILE:** *Reference:*	90400-20 *Lakes Bikeway*

SUBJECT: IMPLEMENTATION OF LAKES BIKEWAY

PURPOSE: To advise the Committee and Council of the results of the public consultation process for the Lakes Bikeway, and make recommendations for implementation.

RECOMMENDATION:

1. **THAT** Council be requested to:

   a. Authorize construction of the Lakes Bikeway, as outlined in Section 4.0 of this report.

   b. Bring down a Capital Reserves Expenditure Bylaw in the amount of $556,500 (inclusive of 6% GST) to finance the on-street portions of this project.

   c. Forward a copy of this report to those who have corresponded with the City on this issue.

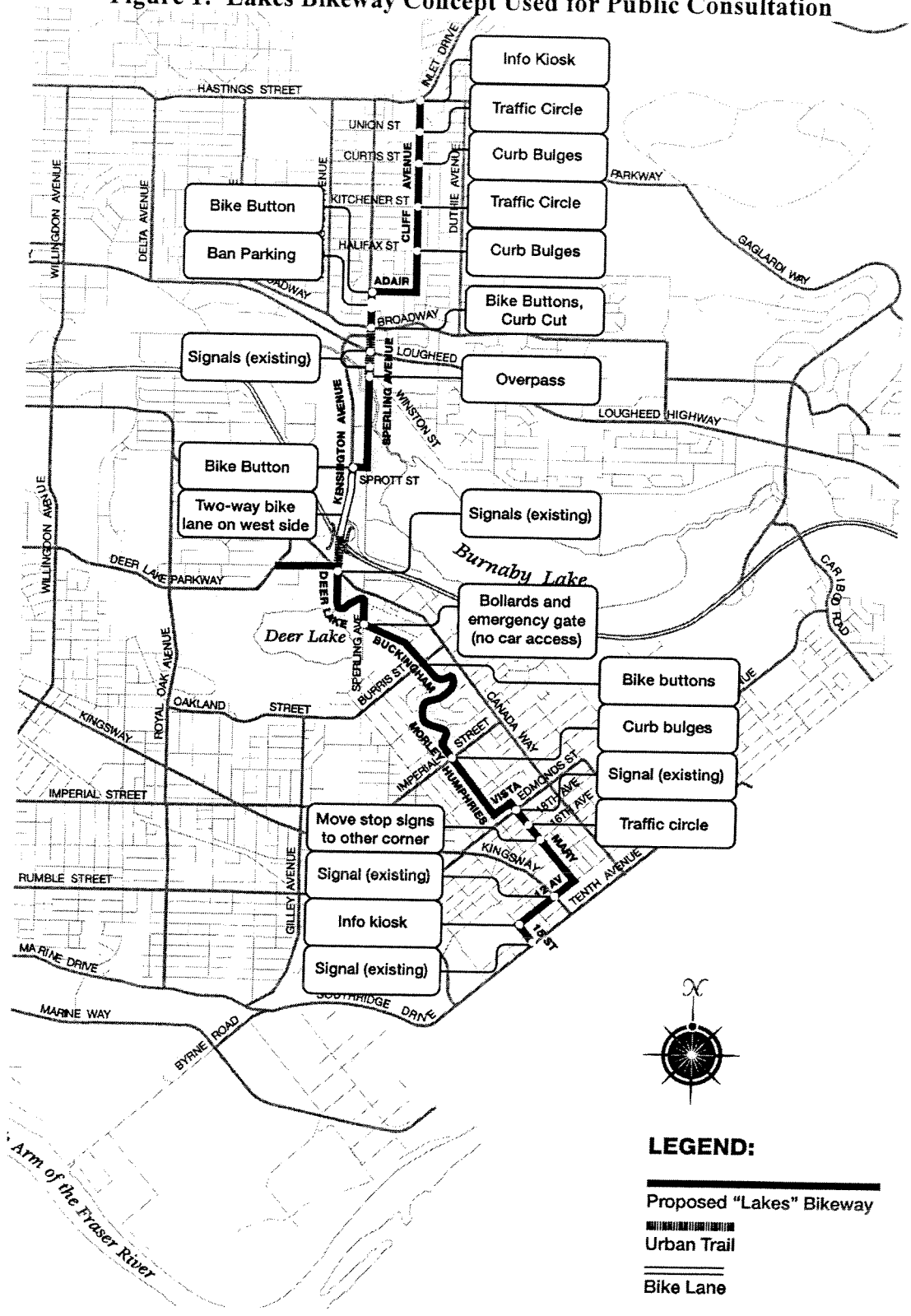
REPORT

1.0 BACKGROUND

On 2006 January 16, Council approved a public consultation process for the proposed Lakes Bikeway. A bikeway is a signed bike route on existing roads. The concept that was presented to the public is illustrated in ***Figure 1***. It links Hastings Street in the north to New Westminster in the south, primarily via Cliff, Sperling, Kensington, Buckingham, Humphries, and Mary.

The consultation process included a brochure mailed out to 1,000 homes and businesses, advertisements in local papers, e-mail messages on cycling listservs, a web page, and an open house. That process has now concluded. This report presents the results, and makes recommendations for implementation.

Figure 1: Lakes Bikeway Concept Used for Public Consultation



2.0 SUMMARY OF RESULTS

2.1 General Support

A total of 146 responses were received, and generally expressed strong support for the proposed Bikeway. This was in part because there are presently no bike routes that cross Highway 1 in the central part of the city.

Each respondent could express support or opposition for each of 19 elements that make up the proposed Bikeway. To provide an indication of general support, each person's response was given a score ranging from -19 (opposed to all elements) to +19 (supports all elements). By this measure, 82% of respondents were positive about the general concept of the Lakes Bikeway.

2.2 Alternative Routings

While the proposed alignment was generally viewed favourably, several respondents expressed concern about the section near Lougheed Highway, specifically from Adair in the north to the BNSF railway tracks in the south. As shown in ***Figure 1***, this part of the Bikeway was proposed to follow the Sperling Avenue alignment. Concerns expressed in this area included the following, with staff comments:

- **Steepness of the grade from Lougheed Highway to Broadway.** The grade is in the order of 13%. This is difficult to do on a bicycle, and some cyclists will likely dismount and walk uphill. Potential routes with lesser grades are discussed in subsequent sections of this report.

- **Narrowness of the path from Lougheed Highway to Broadway.** As part of the Lakes Bikeway project, it is proposed to widen the existing path to 3.0 metres. This width is commonly used for Urban Trails if space is constrained. There is a short section, about 50 metres, where this widening cannot be achieved today due to insufficient right-of-way width. This will be marked as a dismount zone, and protected at the uphill end by baffles (off-set handrail sections). The City will consider obtaining additional right-of-way from the adjoining development, to allow for widening of this section in the future.

- **Steepness of the grade from Broadway to Adair Street.** This grade is on the order of 10%. While still not ideal, such a grade is not unusual for north-south bike routes in Burnaby, in view of the city's topography.

- **Conflicts with pick-up / drop-off traffic associated with Sperling Elementary School.** City staff visited the school during the morning drop-off and afternoon pick-up time periods. Curb-side activity was spread fairly evenly between Sperling Avenue and Adair Street. In either case, both sides of the street were being used. Most of the drivers are regulars, and activity was conducted in a safe and orderly fashion. The available width for cyclists is reduced at this time, but

so are vehicle speeds. The disruption is for short periods of time (on the order of 20 minutes each in the morning and afternoon) and is not considered a significant concern for cyclists.

- **Loss of on-street parking, used by parents for pick-up / drop-off at Sperling Elementary School.** There are two proposed changes to parking. On northbound Sperling Avenue, the existing parking ban during school hours would be extended to all day. This change does not affect the pick-up / drop-off activities. The only change to parking regulations that would apply during school hours would be the implementation of a no-parking zone on southbound Sperling Avenue (i.e., the west side, across the street from the school), extending southward from Adair Street for 30 metres. Stopping would still be permitted; only parking would be banned. Based on the staff observations, this area is not used heavily for parking today. During the periods observed, only three parents parked here, typically for about five minutes each. Most parents seem to avoid this area, even when space is available. With the implementation of a parking ban, the few parents who do use it would need to either:

    - Stop rather than park at this location. That is, they would drop their children off at the curb rather than escorting them into the school. The crossing of Sperling Avenue is protected by both signals and student crossing guards, and most children therefore cross without their parents.

    - Park at another location, as other parents are doing.

- **Sperling Avenue is a truck route.** With the above-noted parking restrictions, cyclists will have good separation from trucks. Going northbound from Broadway, trucks may sometimes have to move from the truck lane into the through lane for a short distance, when cyclists are occupying the truck lane.

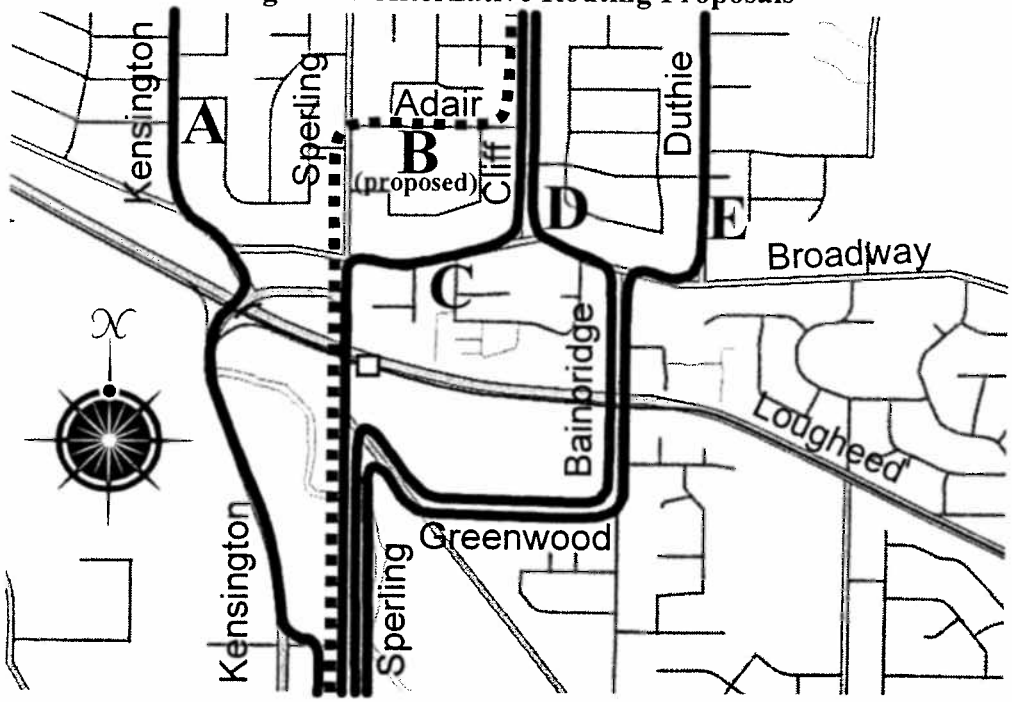
- **Potential conflicts with pedestrians in front of Sperling – Burnaby Lake SkyTrain station.** The widening of the sidewalk to 3.0 metres will increase the space available for pedestrians and cyclists. Use of this section of sidewalk is essential in order to cross the railway tracks to the south (via the overpass being constructed as part of the Central Valley Greenway).

In discussing these concerns, some respondents offered alternative alignments. As shown in ***Figure 2***, the options are:

A. **Via Kensington Urban Trail to Broadway; then on-street via Broadway and Kensington.** This route also has a steep grade, on the order of 12% where it ascends to cross the railway tracks. (The Urban Trail ascends as high as the adjoining road, but in a much shorter distance. It thus has a steeper grade than the road.) There are challenges in crossing Broadway. It would also be necessary to reconstruct 300 metres of Kensington Avenue (from Curtis Street to Union Street) at considerable expense, in order to provide sufficient road width for cyclists.

Even then, traffic volumes on this part of Kensington range from 7,000 to 10,000 per day, as compared with 1,000 to 2,000 on the proposed Cliff routing. The latter is therefore seen as preferable for cyclists.

Figure 2: Alternative Routing Proposals



B. **Sperling as originally proposed, but grade-separated above Lougheed Highway.** The intent here was to ease the 13% sidewalk grade to the north, by allowing a longer distance in which to ascend. Such a structure would descend gradually from Broadway to the south side of Lougheed Highway, ending at about the elevation of the SkyTrain platforms. In principle, if supported by TransLink, this would allow for an enhanced link to the westbound platform. However, it would then require a ramp system to get cyclists down to grade, to cross beneath the SkyTrain guideway and continue southward. The primary difficulty with this concept is one of cost. While a detailed estimate has not been prepared, the cost would likely be in excess of $1 million. This is considered excessive for the magnitude of the problem being addressed.

C. **Sperling to Broadway, then Broadway to Cliff.** The main advantage of this option is a better grade. There would still be a 13% grade south of Broadway, but the 10% grade to the north would be replaced by a 5% grade on Broadway. Difficulties are:

- The intersection of Broadway at Cliff Avenue is poor for cyclists. Due to a nearby bend in Broadway, visibility to the east is restricted. This makes it difficult for cyclists to judge when it is safe to turn left, from eastbound Broadway to northbound Cliff Avenue.

- Volumes on Broadway are somewhat higher than those on Sperling Avenue.

- To provide sufficient width for cyclists, it would be necessary to ban parking on one side of Broadway for a distance of about 300 metres, affecting a dozen homes. This contrasts with a ban of only 30 metres under the proposed concept, affecting only one home which still retains on-street parking via a side-street.

D. **Winston, Greenwood, Bainbridge, Broadway, Cliff.** This would use an existing Urban Trail on this section of Winston Street, and thereafter would be an on-street route. There are several problems with this concept:

- More circuitous. It would add 750 metres to the route length.

- Still steep. Part of Greenwood Street has a grade comparable to the 13% sidewalk grade on Sperling Avenue.

- More of the route is on higher-volume roads: Bainbridge Avenue and Broadway.

- Width. Parking bans would be required on parts of Bainbridge Avenue and Broadway. Some of Bainbridge would likely need to be reconstructed for greater width.

E. **Winston, Greenwood, Bainbridge, Broadway, Duthie.** This has many of the difficulties of the preceding option. It would also require reconstruction of Broadway, from Bainbridge to Duthie, for greater width. In addition, Duthie Avenue is a busier road than Cliff Avenue, and thus a poorer choice for the trip northward.

For the above reasons, the originally-proposed routing via Sperling Avenue and Adair Street is recommended.

Routing suggestions were offered for two other parts of the Bikeway. The first was to have a crossing of Highway 1 on the Sperling Avenue alignment, rather than Kensington Avenue. This is the ultimate solution shown in the Burnaby Transportation Plan. It has the advantage of completely removing cyclists from the more difficult traffic environment at Kensington interchange. The City has been discussing this option with the Gateway Program, but has not yet received a commitment. It remains the City's intent to pursue the ultimate development of the more desirable Sperling alignment, but it has not been proposed for immediate construction due to the high cost.

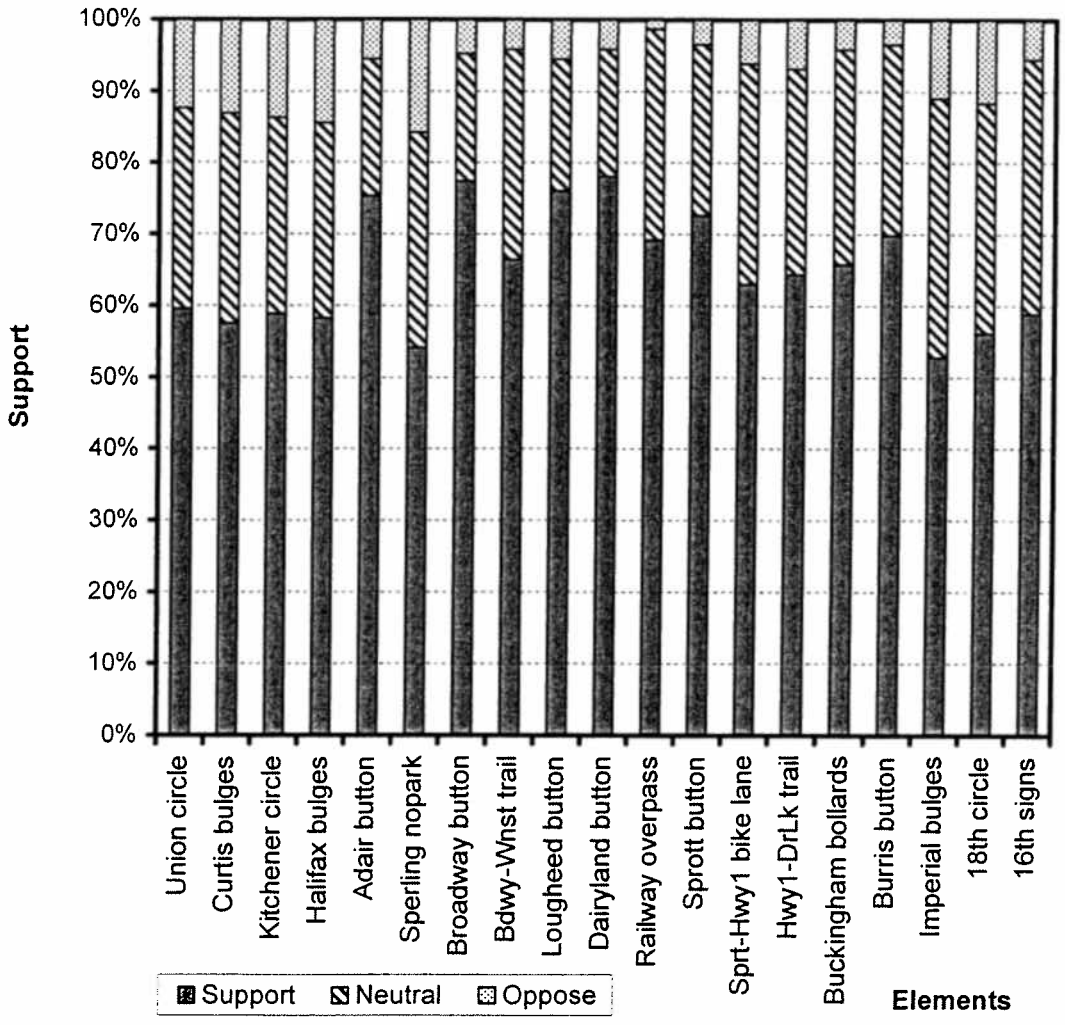
A suggestion was also made that the Lakes Bikeway should connect to New Westminster at 10th Street rather than 15th Street. This could be done, for example via an existing signal at Henley Street (one block west of 10th Street). While there are no doubt cyclists using this route today, it does involve cutting across Mary Avenue Park and the parking

lot of a private school. This is not recommended. While the proposed crossing at 15th Street is too far west for some, cyclists also have the option of crossing further east, via a pedestrian/bike signal recently installed at 2nd Street.

2.3 Detailed Results

Results for individual project elements are shown in ***Figure 3***, arranged from north to south. This shows strong support for all elements, ranging from 3:1 (support over opposition) up to 50:1.

Figure 3: Support for Individual Project Elements



Noteworthy comments, from north to south, include:

1. **Curtis Street (at Cliff).** One of the most common suggestions was that the Bikeway should have centre median refuges rather than curb bulges at Curtis Street (and other locations). This would follow the precedent set on our other

Bikeways (Frances-Union, Sea-to-River, Victory) for crossing various collector roads. An example is shown in ***Figure 4***. These allow cyclists to cross the busier road (in this case, Curtis) in two stages, as traffic permits. Medians have the added benefit of reducing speeds slightly for some of the faster moving vehicles, bringing them closer to the speed limit. A median refuge requires the elimination of on-street parking on Curtis Street near the intersection. This would primarily affect the four corner properties, which would still retain on-street parking on Cliff Avenue.

Median refuges were considered for Curtis Street during the original development of the Bikeway concept, but were rejected out of concern that they would block one or more driveways on Curtis Street. However, it has now been determined that the medians can be implemented without blocking the driveways. Medians can either be "hollow" (as shown in ***Figure 4***) or "solid", which prohibits all left turns and the north-south through movements. The latter is considered inappropriate for Cliff Avenue, which is the only continuous local road in this area. It is therefore recommended that the Curtis Street intersection be treated with a "hollow" centre median refuge, rather than the originally-proposed curb bulges.

Figure 4: "Hollow" Centre Median Refuge

2. **Halifax Street (at Cliff).** This is the second location where respondents suggested a centre median refuge rather than a curb bulge. The discussion given for Curtis Street applies again here, with one additional factor. There is bus service on Halifax Street, and there are bus stops in both directions at the Cliff Avenue intersection. Implementation of a centre median could mean relocating the bus stops further away from the intersection. This would be less useful to transit passengers, as well as consuming more on-street parking. The alternative would be to leave the bus stops where they are. With a centre median, this would prevent cars from passing a stopped bus. This would happen, at most, once every

15 minutes during peak times. This is not considered a significant problem, particularly as this stop is not major enough to require frequent or lengthy stopping. It is therefore recommended that the Halifax Street intersection be treated with a "hollow" centre median refuge, rather than the originally-proposed curb bulges.

3. **Adair Street to Winston Street (on Sperling).** This part of the Bikeway has already been discussed under the "routing" section of this report.

4. **Sprott Street (at Kensington).** The vehicle detector loop on westbound Sprott Street should be tuned for bicycles, and marked for cyclists. This will benefit both cyclists continuing southward on the Lakes Bikeway and those headed westward on Sprott. Staff concur with this suggestion, which will be raised with the Ministry of Transportation (owners of this signal).

5. **Sprott Street to Canada Way (on Kensington).** The crossing of the freeway was another area that generated numerous comments. In particular, the importance of maximizing the separation between motorized traffic and the proposed two-way bike lane on the west side of Kensington Avenue was noted. For example, the installation of "soft-hit" posts would provide clear separation, and discourage drivers from intruding on the bike lane. This approach has been applied successfully on Lougheed Highway, where cars regularly parked in the bike lane to access a beer store.

   It was also noted that more experienced cyclists will still want to ride in the traffic on Kensington Avenue, rather than on the sidewalk. It was suggested that it may be possible to increase the on-street width available for cyclists by altering the lane markings. This would be available in addition to the proposed two-way route along the west side of Kensington Avenue.

   Staff concur with both these suggestions, and will raise them with the Ministry of Transportation (which is responsible for this part of Kensington Avenue).

6. **Burris Street (at Buckingham).** Vehicle detector loops should be tuned for bicycles, and marked for cyclists. Staff concur with this suggestion. This will be done in addition to the installation of the proposed bike buttons, giving cyclists a choice for how to activate this signal.

7. **Imperial Street (at Morley / Humphries).** This is another location where a proposed set of curb bulges could be replaced with a centre median refuge. However, in this case, Morley Drive to the north is offset from Humphries Avenue to the south. This requires a much larger open area in the middle of the intersection, and the value of the median is reduced. In addition, a median at this intersection would block one driveway on Imperial Street. Another suggestion was for a pedestrian / bike signal at this intersection. However, this part of Imperial Street is less busy than the western end, and a signal is not considered

appropriate. The original curb bulge concept is therefore recommended for Imperial Street.

8. **Edmonds Street to 16th Avenue (on Mary).** Several people suggested that the lack of sidewalks on this part of Mary Avenue is an issue. They report that there are already pedestrian / car conflicts, and are concerned that cyclists will add to this problem. In the view of City staff, cyclists will not add to the existing problem. Some existing car drivers may choose to cycle, once the Bikeway is constructed. The presence of more cyclists may also have a traffic calming effect. The existing sidewalk issue should be addressed through the Local Area Service Program. In addition, due to the linkage to the Edmonds commercial area, this section should be considered a candidate for the City's interim sidewalk program.

9. **16th Avenue (at Mary).** It was suggested that a four-way stop or traffic circle would be better than the original proposal of rotating the stop signs to favour Mary Avenue over 16th Avenue. This part of 16th Avenue is a local road (unlike the busier section to the east) and so is Mary Avenue. The rotation of the stop signs is considered a more cost-effective solution than a traffic circle, and introduces a more regular stop sign spacing on 16th Avenue. A four-way stop is not recommended, as it would still require cyclists to come to a stop for a local intersection. Accordingly, the original concept of rotating the stop signs to favour Mary Avenue is recommended.

3.0 FINANCING

As indicated in the Transportation Committee report of 2006 January 4, the total cost for the Lakes Bikeway is estimated at $970,000. The net cost to the City is expected to be 48% of that amount due to cost-sharing that has been agreed to by TransLink and the Ministry of Transportation.

Budgeting for the full $970,000 is included in the 2006 Annual Financial Plan, split between the Bicycle (on-street) and Urban Trails (off-street) programs. The on-street work is planned for 2006 and 2007, while the off-street work is expected to extend from 2007 through 2009. Opportunities will be sought to accelerate the off-street work, through the process of developing the 2007 Annual Financial Plan.

The off-street work will begin next year, and spending authorization will be sought in 2007. At this time, spending authorization is being sought for the on-street work to be performed in 2006 and 2007. The budget for this portion of the work is $525,000, with $50,000 budgeted for 2006 and the balance in 2007.

Sufficient Capital Reserves are available to fund this project and it is included under the Bicycle Program of the 2006 Annual Financial Plan. It is therefore recommended that a Capital Reserves Expenditure Bylaw in the amount of $556,500 (inclusive of 6% GST) be brought down to finance this work over 2006 and 2007.

4.0 CONCLUSION

This report has presented the results of the public consultation process for the proposed Lakes Bikeway. It is recommended that the Bikeway be built as originally proposed, with the following refinements:

1. The Curtis Street intersection will be treated with a "hollow" centre median refuge, rather than curb bulges.

2. The Halifax Street intersection will be treated with a "hollow" centre median refuge, rather than curb bulges.

3. Customize the vehicle detector loop for cyclists, on westbound Sprott Street at Kensington Avenue (subject to Ministry of Transportation approval).

4. Use "soft-hit" posts or other measures to enhance separation of cyclists from motor vehicles on Kensington Avenue, from Sprott Street to Highway 1 (subject to Ministry of Transportation approval).

5. Increase on-street space available for cyclists on Kensington Avenue, from Sprott Street to Canada Way (subject to Ministry of Transportation approval).

6. Customize the vehicle detector loop for cyclists, on northbound and southbound Buckingham Avenue / Drive at Burris Street (in addition to the proposed bike buttons).

This report makes the following additional recommendations:

1. That a Capital Reserves Expenditure Bylaw in the amount of $556,500 (inclusive of 6% GST) be brought down to finance the on-street portions of the Lakes Bikeway.

2. That a copy of this report be forwarded to those who have corresponded with the City on this issue.

for J.S. Belhouse, Director
PLANNING AND BUILDING

SR:jc:sa

cc: City Manager
Director Engineering
Director Finance
Director Parks, Recreation & Cultural Services

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