



ADMINISTRATIVE REPORT

Report Date: May 12, 2010
Contact: Jerry Dobrovolny
Contact No.: 604.873.7331
RTS No.: 08656
VanRIMS No.: 08-2000-20
Meeting Date: May 20, 2010

TO: Standing Committee on City Services and Budgets
FROM: Acting General Manager of Engineering Services
SUBJECT: Dunsmuir Street Separated Bike Lane

RECOMMENDATION

THAT Council approve the request for approval in advance of the 2010 Capital Budget for the construction of a two-way separated bike lane pilot on Dunsmuir Street, including a monitoring and evaluation program with a report back to Council regarding the results, at a cost not exceeding \$810,000; source of funds to be the 2010 Streets Basic Capital Budget (A4a6 Strategic Transportation - Arterial Modifications), as part of the \$25 million 2010/2011 bike infrastructure work plan presented to Council on May 6, 2010, and funded from existing Capital Plans.

COUNCIL POLICY

In 1997, Council approved the City of Vancouver Transportation Plan that identified cycling as one of the City's top transportation priorities. The Plan proposed a network of Downtown bike lanes.

In 1999, Council adopted the Bicycle Plan, which identified 12 action items to improve cycling in Vancouver, including a network of commuter and recreational bicycle routes throughout the City.

In 2002, Council approved Vancouver's Downtown Transportation Plan, which emphasized the need for safer and more convenient cycling facilities in the Downtown to provide direct connections to key destinations.

In April 2005, Council approved the Community Climate Change Action Plan that identified the critical importance of encouraging and supporting active transportation if Vancouver is to meet its greenhouse gas reduction target for 2012.

In April 2009, Council received the Mayor's Greenest City Action Team's Quick Starts Report, which recommended early actions the City can take to help Vancouver become the greenest city by 2020, including ways to increase the attractiveness of cycling, such as a network of protected bike lanes on existing bike routes.

In October 2009, Council received the Mayor's Greenest City Action Team's strategy Vancouver 2020 A Bright Green Future which encourages the City to explore opportunities to add protected bikeways in the downtown.

In February 2010, Council approved a separated bike lane on the Dunsmuir Viaduct and approved in principle separated bike lanes downtown to connect the Burrard Bridge and the Dunsmuir Viaduct.

On May 6, 2010, Council approved bicycle network improvement projects for 2010/2011, including separated bike lanes downtown to connect the Burrard Bridge and Dunsmuir Viaduct.

PURPOSE AND SUMMARY

The purpose of this report is to seek Council approval to construct a two-way separated bike lane pilot on the north side of Dunsmuir Street, achieved by removing a single travel lane, complete with an evaluation and monitoring program and associated costs. There will be three types of separation used (parking, plants, and medians) as part of this pilot to evaluate the merits of each. This is the first phase of a two phase initiative to connect the Burrard Bridge and the Dunsmuir Viaduct separated bike lanes to the central business district.

BACKGROUND

Experience from other cities suggests that separated bike lanes are effective in attracting more people to cycling. Various studies report that separated bike lanes are perceived to be safer than on-street bike facilities (shared routes, painted bike lanes, local street bike routes) and that this is at least part of the reason why they attract a portion of the population who would not otherwise cycle. Separated bike lanes are also among the most requested type of bike facility in Vancouver.

To increase the attractiveness of cycling and encourage more people of all ages and abilities to cycle, separated bike lanes were installed on the Burrard Bridge in July 2009 and on the Dunsmuir Viaduct in March 2010 following the Olympic Games. Separated bike lanes have also been approved in principle in the downtown to connect the Burrard Bridge and the Dunsmuir Viaduct with the central business district. In the February 2010 report to Council (Separated Bike Lanes in Downtown - RTS# 8181), Dunsmuir Street was identified as the east-west connection between the Dunsmuir Viaduct and the central business district (CBD); the alignment for the north-south connection between the CBD and the Burrard Bridge is still under investigation (Figure 1).

Dunsmuir Street aligns well with the desired cycling route between the Adanac Route and CBD, especially now with the two-way separated bike lane on the Dunsmuir Viaduct. Dunsmuir Street is a good candidate for a separated bike facility because it is already designated as a bike route and has few conflicts with transit.

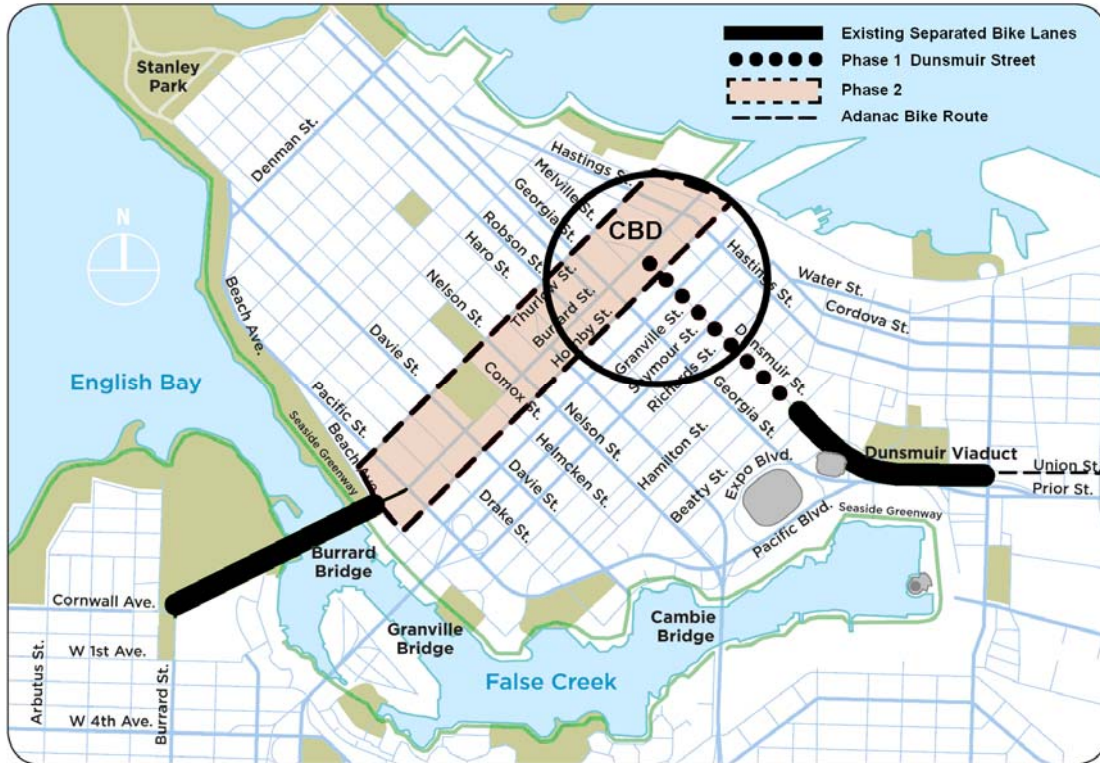


Figure 1: Existing separated bike lanes on Burrard Bridge and Dunsmuir Viaduct with proposed connections to the central business district (CBD): separated bike lanes along Dunsmuir Street to connect the Adanac bike route and the CBD and a north-south connection to the Burrard Bridge

DISCUSSION

Dunsmuir Street currently accommodates three westbound travel lanes, a painted westbound bike lane, and parking east of Richards Street (Figures 2 and 3).

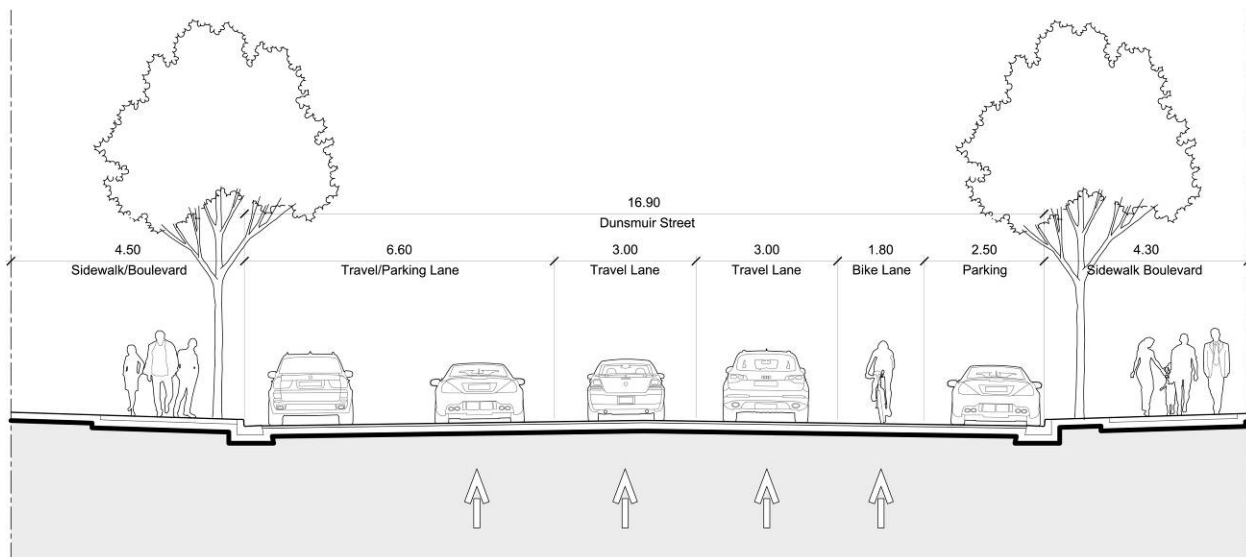


Figure 2: Existing cross-section of Dunsmuir Street between Beatty and Richards Streets (looking west)

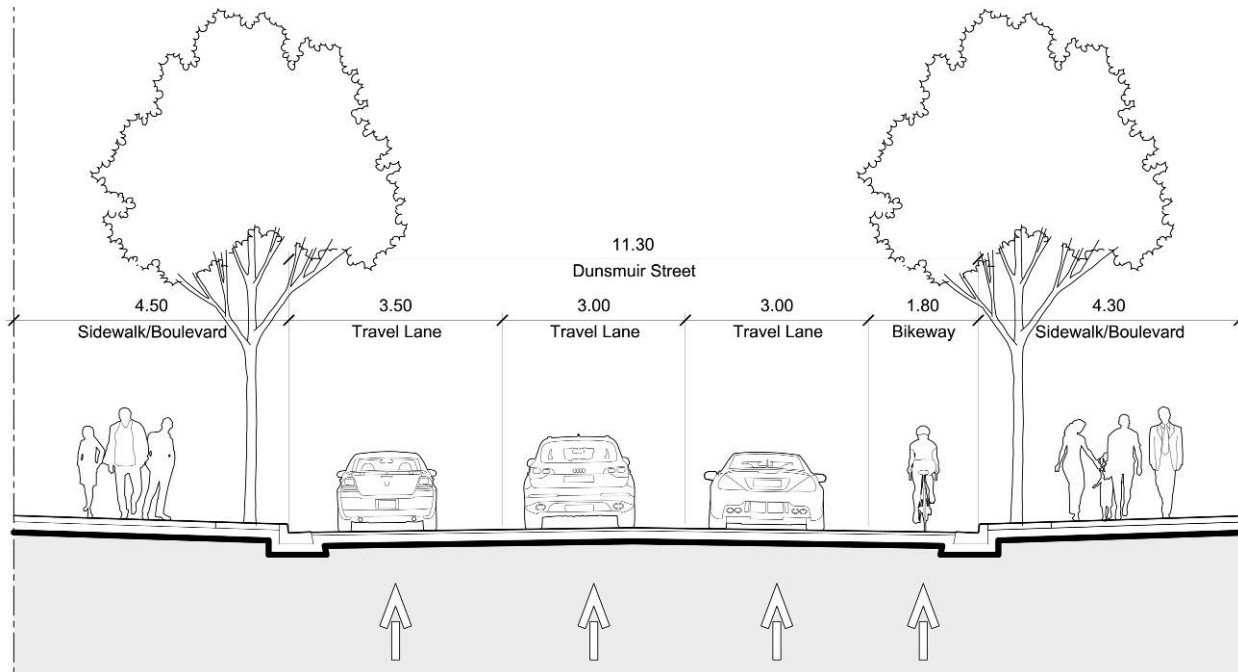


Figure 3: Existing cross-section of Dunsmuir Street between Richards and Hornby Streets (looking west)

Since the Dunsmuir Viaduct separated bike lane opened on March 3, 2010, the number of cyclists using the viaduct has increased, as well as the number of cyclists using Dunsmuir Street to reach the viaduct separated bike lane. A portion of the cyclists on Dunsmuir Street are eastbound cyclists from the downtown, who have been observed cycling the wrong way along the Dunsmuir Street painted bike lane to access the Dunsmuir Viaduct separated bike lane.

Staff recommend that a bi-directional separated bike lane pilot be implemented on the north side of Dunsmuir Street. Changes will be required at intersections and transit stops to accommodate the separated bike lane. Street space will be reallocated to provide space for the separated bike lane on the north side of Dunsmuir Street (see figures 4 and 5). Such a facility would provide a direct connection to the Dunsmuir Viaduct separated bike lane. Three types of physical separation are also proposed for Dunsmuir Street to evaluate their benefits and provide information for future separated bike lanes.

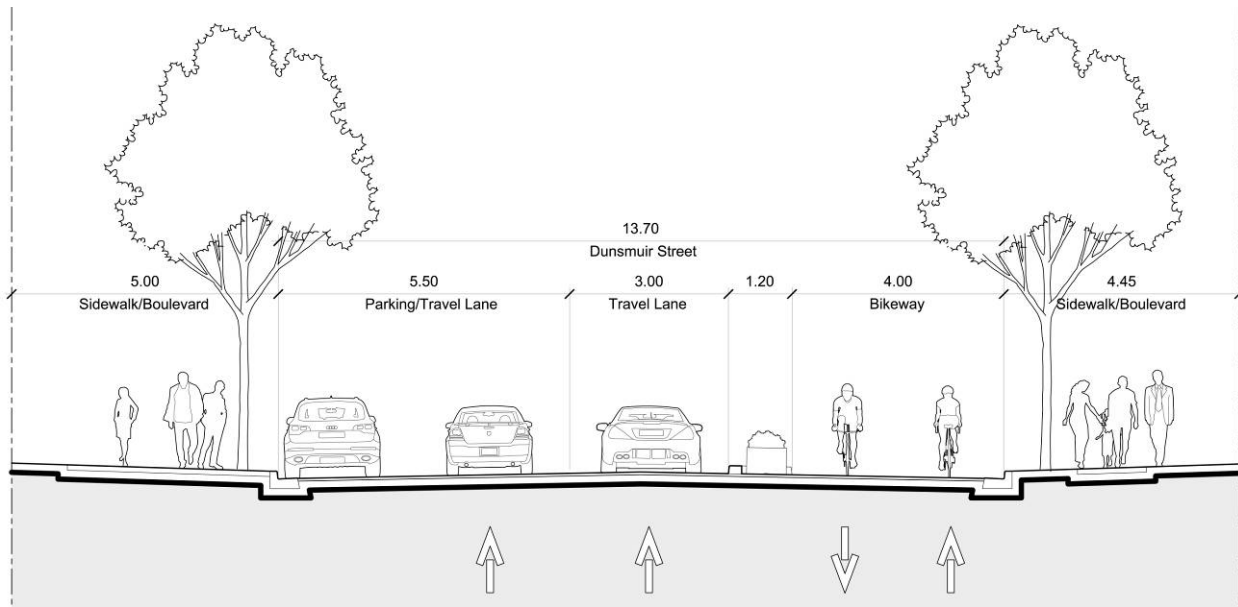


Figure 4: Proposed cross-section of Dunsmuir Street between Beatty and Richards Streets (looking west)

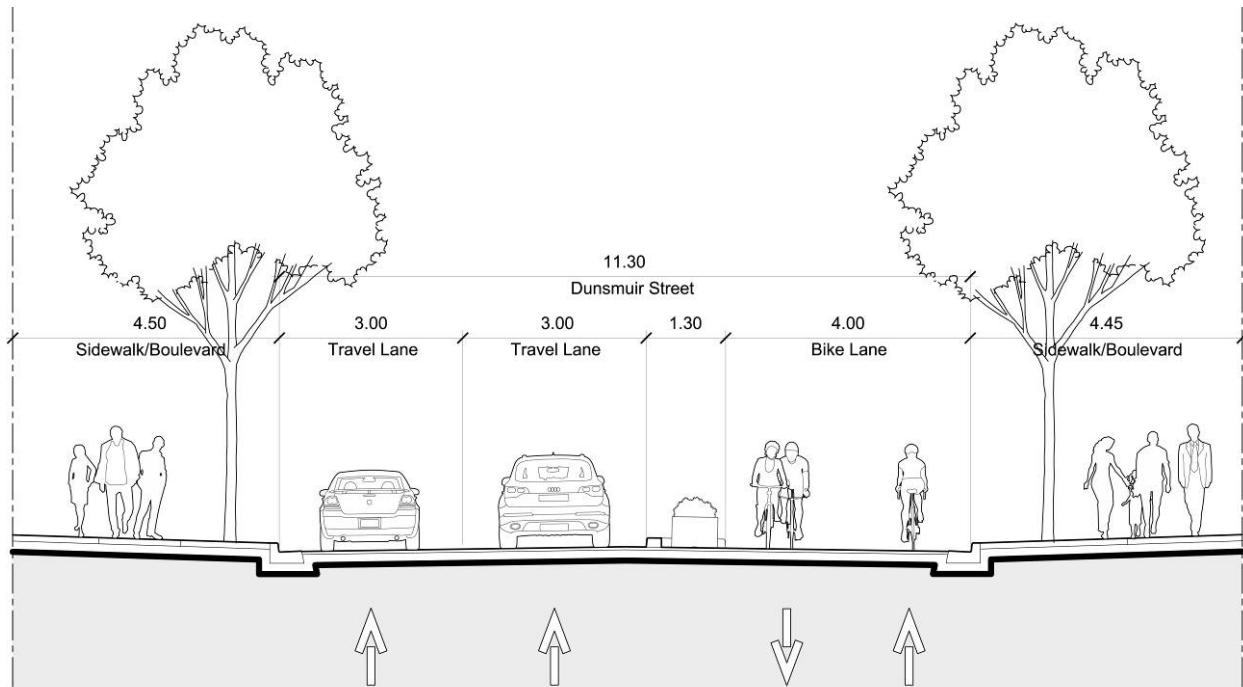


Figure 5: Proposed cross-section of Dunsmuir Street between Richards and Hornby Streets (looking west)

Intersections

The implementation of a two-way separated bike lane on the north side of Dunsmuir Street introduces two conflicts between cyclists and vehicles: eastbound cyclists against right turning vehicles and westbound cyclists against right turning vehicles. To reduce this conflict, other cities (e.g. Copenhagen, New York, Montreal) design major intersections with dedicated

right turn lanes, blue cycle crossings, recessed stop bars (i.e. stop bars set back from their normal location by five metres), banned right turns, and/or separate signals for turning vehicles or bicycles. These measures give cyclists and motorists advanced warning that there may be a conflict at the intersection, as well as providing motorists with greater visibility of cyclists at the intersection.

Staff recommend that a combination of these techniques be used along Dunsmuir Street. Details of the configuration of each intersection will continue to be refined in response to the conditions observed at the intersections.

Street Space Reallocation

Implementing a two-way separated bike lane on Dunsmuir Street will require reallocation of street space from other uses. Since most of Vancouver's streets have only minimum travel lane widths, and Dunsmuir Street is no exception, the separated bike lane can only be achieved by eliminating a general traffic lane (see figures 3 and 5).

Removing a travel lane from Dunsmuir Street, to provide the width for a separated bike lane, will reduce vehicle capacity and impact on-street uses. The portion of the on-street uses (parking, loading, bus stops) located mid-block would be maintained, but those near intersections would need to be removed to accommodate right turning bays. The result would be the loss of a maximum of 25 parking spaces and other (passenger, taxi, loading) zones along the north side of Dunsmuir Street.

Transit

Transit service may also be impacted with the implementation of a separated bike lane on Dunsmuir Street. Currently, busses stop at the curb to load and unload passengers (see Figure 6). A separated bike lane next to the curb would prohibit busses from stopping at the curb and require transit users to cross the bike path.

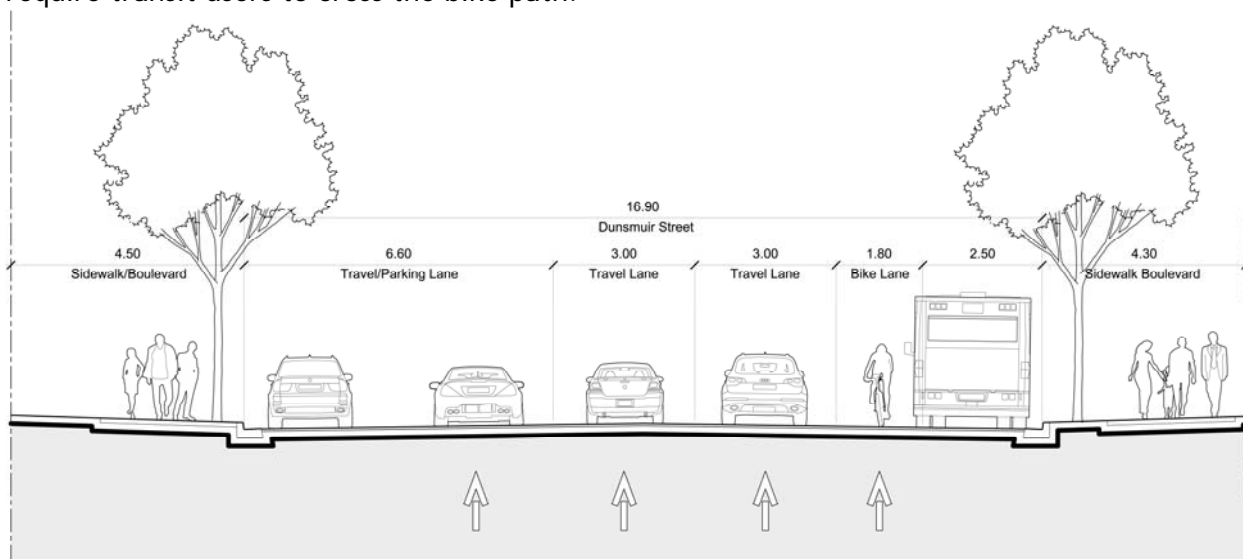


Figure 6: Existing cross-section of a transit stop along Dunsmuir Street (looking west)

Other cities, such as Copenhagen, have constructed a median (1.5m to 2.5m wide) between the bike path and the bus that functions as a refuge for passengers to enter and exit busses

(Livable Copenhagen: The Design of a Bicycle City - Nelson and Scholar, 2007). To implement the refuge median at bus stops along Dunsmuir Street requires additional street space.

Staff recommend that the refuge median be implemented at locations along Dunsmuir Street where vehicle capacity would not be reduced by a stopping bus and where the street width permits (Figure 7). Constructing a transit refuge, where possible, on Dunsmuir Street will provide the opportunity to evaluate the benefits and conflicts of transit stops next to separated bike facilities and provide valuable information for evaluating the development of future separated bike lanes.

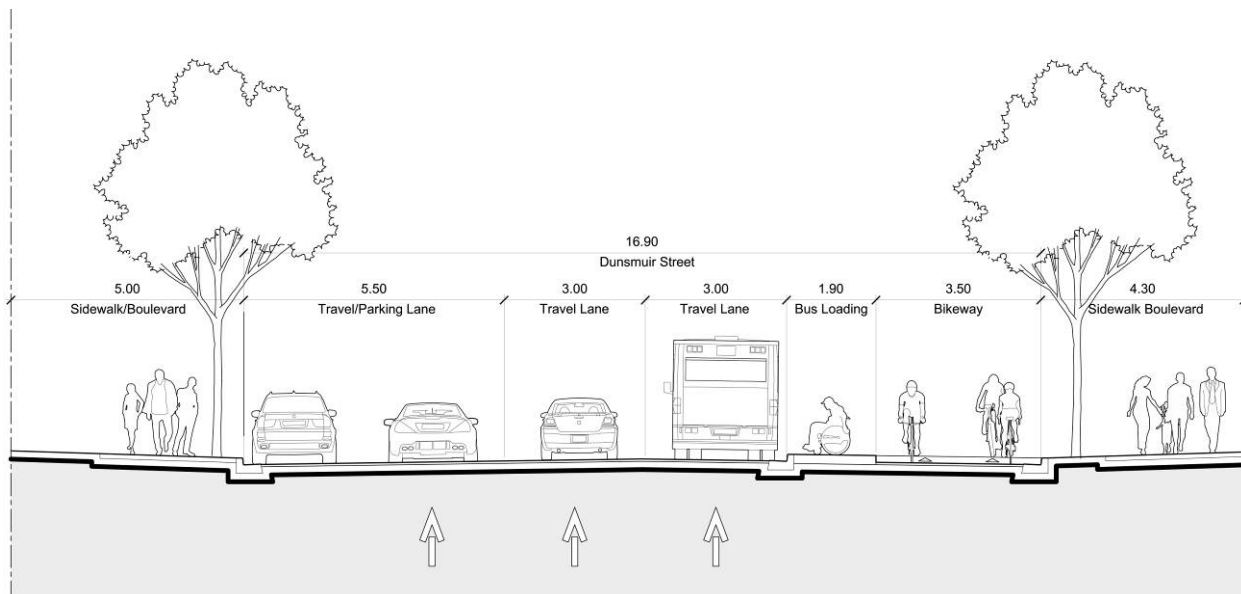


Figure 7: Proposed cross-section of a transit stop along Dunsmuir Street (looking west)

Separation Types

The physical separation type that has been used to separate vehicles and bikes on the Burrard Bridge and the Dunsmuir Viaduct is concrete barriers. They are an appropriate separation type for high speed and high volume traffic locations, but are not suitable for downtown Vancouver. There are types of physical separation that have been used in other cities' downtowns, such as New York, Portland, and Montreal. New York has used paint and posts, paint and planters, and paint and parked cars to provide separation between cyclists and vehicles on its city streets. Portland has used the paint and parked car separation, as well. In downtown Montreal, concrete medians were used to provide separation between cyclists and vehicles.

After reviewing the feedback received from the consultation process and considering the width constraints along Dunsmuir Street, staff recommend that three types of separation be used for the Dunsmuir Street separated bike lane pilot: planters, parking, and medians. This provides an opportunity to evaluate the benefits and conflicts of each type of separation and provide valuable information for evaluating the development of future separated bike lanes.

Monitoring and Evaluation

A two-way separated bike lane on Dunsmuir Street would provide empirical data regarding:

- The effects on motorized traffic;
- The change in cycling and traffic volumes along the corridor; and
- Any capacity or safety issues that become apparent concerning cyclists or vehicles.

A minimum six-month pilot would allow for monitoring of street operations through three seasons, a range of weather conditions, and special events. After which, a more permanent design could be implemented.

If approved, staff will develop a program to monitor cyclist and vehicle traffic on Dunsmuir Street during the demonstration. The program would include vehicle travel times and volumes of vehicles and bicycles. As with other elements of the pilot, the monitoring plan would be subject to modification as needed during the implementation period. Information collected would be used to assess the effectiveness of these measures and guide modifications.

CONSULTATION

Staff conducted a series of surveys and meetings with a range of stakeholder groups in order to identify the key concerns around the implementation of a separated bike lane on Dunsmuir Street. The key concerns were the type of physical separation to be used, access to the businesses, the intersection design (as it relates to right turning vehicles), and transit stops. Generally, the feedback was supportive of a separated bike lane pilot on the north side of Dunsmuir Street. The preferred physical separation types were plants, parking, and medians.

On April 13th, 2010, staff made a presentation to the Bicycle Network Subcommittee on the implementation of a bi-directional separated bike lane on Dunsmuir Street. The concerns raised by the subcommittee related to the type of separation to be used, intersection design, especially as it relates to right turning vehicles, and transit stops.

There were four separation options presented to the Bicycle Network Subcommittee: posts and paint, planters and paint, concrete barriers, and medians with bike parking (Figure 7). The committee strongly supported the median design which provides bike parking.

In addition to the type of physical separation to be used, the committee was concerned with the design of transit stops and the intersections along Dunsmuir Street where right turns may be permitted. The Bicycle Network Subcommittee stressed the importance of designing for cyclist safety at intersections regarding the conflict between cyclists and vehicles turning right. The subcommittee also highlighted the need to design a transit stop that provides sufficient space for passengers to queue and alight without infringing on the bike path. Staff and the BC Trucking Association (BCTA) developed a survey for the BCTA members to determine their response to the Dunsmuir Viaduct separated bike lane and their concerns with separated bike lanes downtown (see Appendix A for survey questions). At this time the BCTA does not have significant concerns with the separated bike lanes, but requests to be kept involved in future separated bike lane planning.

Paint and posts



Concrete barriers

Paint and planters



Median with bike racks



Figure 8: Types of separation used for bike lanes (source: City of Vancouver)

In mid-April, information brochures with a short tear-off and mail-in survey were hand-delivered to businesses along and within one block of Dunsmuir Street. The purpose of the brochure/survey was to notify businesses of the Dunsmuir Street separated bike lane and to identify the business community's concerns with the proposed change to Dunsmuir Street (see Appendix B for the brochure and survey). There were approximately 1000 information brochures delivered and 68 completed surveys were received back by May 1, 2010. The key concerns from the businesses located along and near Dunsmuir Street are: the types of barriers to be used to separate vehicles from the bike path, access to loading zones and/or customer access to parking, and the number of travel lanes.

To gather additional input, an on-line survey open to the general public was posted on the City's website (see Appendix C for survey questions). The survey was designed so that businesses located anywhere in the City could participate. There were 452 submissions received through the on-line survey; of those submissions, 46 were business operators and 407 were from the general public.

The responses from the general public showed that their concerns are the number of vehicle travel lanes on Dunsmuir Street and the type of barrier to be used to separate vehicles and bikes. There were 362 responses to the question "which type of barrier do you most prefer" and 171 responses were for planters. The order of preference for the other options was median, concrete barriers, parking, and then posts. The business community responses from

the on-line survey were consistent with the findings from the surveys that were mailed in by the businesses along and near Dunsmuir Street.

In addition to notifying the businesses, Staff made presentations to the Downtown Vancouver Business Improvement Association (DVBIA) Access and Mobility Subcommittee and the Downtown Vancouver Association (DVA) on April 21, 2010. The main concerns of the DVBIA were the possible restriction of right-hand turns, the capacity for deliveries to be made to businesses along Dunsmuir Street, and the aesthetics of the physical separation to be used. They did not support using concrete barriers for the separation. They also provided a suggestion for cautionary signage for right turning vehicles instead of banning right turns.

The DVA subcommittee highlighted opportunities and implications with separated bike lanes on Dunsmuir Street. They recognized that separated bike lanes provide a buffer between pedestrians and vehicles, which has the potential to improve the pedestrian experience along Dunsmuir Street. Other important considerations are to maintain access to businesses by all modes of transportation and provide an aesthetically pleasing separation between bikes and vehicles. The DVA supported the median separation with bike parking because they see value in having bike parking at the bike path level.

FINANCIAL IMPLICATIONS

A request for funding of \$3.0 million (\$2.7 million DCL, \$0.3 million Capital from Revenue) for separated bike lanes in the downtown core, including implementation of a two-way separated bike facility on Dunsmuir Street, has been submitted for consideration in the 2010 Basic Capital Budget. The estimated cost of implementing a two-way separated bike lane on Dunsmuir Street is \$810,000.

Signals	\$180,000
Civil work	\$206,000
Planters (including soil and plants)	\$125,000
Bike corrals	\$15,000
Communications	\$100,000
Contingency	\$184,000
Total	\$810,000

It is proposed that funding be provided in advance for this work from the 2010 Basic Capital Budget (A4a6 Strategic Transportation – Arterial Modifications). Consideration will also have to be given to the operational impacts of this cycling infrastructure in the development of subsequent years operating budgets.

The removal of parking spaces along Dunsmuir Street will result in a loss to the City's Operating Budget. The maximum loss is 25 parking spaces which provide \$510 per day (approximately \$186,000 per year, estimated impact for 2010 is \$110,000) in revenue to the City (based on 2010 rates). The number of lost spaces (and lost revenue) could be reduced by using different physical separation types at specific locations and this will continue to be refined in response to conditions along Dunsmuir Street.

PERSONNEL IMPLICATIONS

Staff time will be required to meet design, construction, and monitoring objectives. The magnitude of the monitoring and communications tasks, combined with staff commitments to

other projects mean that additional staff or outside resources will be needed. The duration of this additional staff requirement will be greater than that of the immediate separated bike lane instalment to accommodate pre-implementation planning and post-implementation assessment.

IMPLEMENTATION PLAN

Implementation is feasible within four weeks of Council approval of the design and has been planned to coincide with bike month. Staff will develop a detailed implementation plan that accommodates special events. Staff would report back to Council as needed regarding the results of this bike facility.

COMMUNICATIONS PLAN

The communication plan will provide information on

- the goals of the initiative: attract more people to cycling, a shift in sustainable modes of transportation;
- the links between this initiative and broader council priorities and policies - the Greenest City initiative and the Transportation Plan; and
- key information (through various modes) in regard to implementation of the plan including traffic changes and travel alternatives (especially around the downtown core) as far in advance as possible.

The plan will also provide an opportunity for ongoing feedback which can be factored into the ongoing evaluation of the initiative. More information on the communication plan is provided in Appendix D.

CONCLUSION

Staff have developed a plan for implementing a two-way separated bike lane on the north side of Dunsmuir Street during June 2010. This separated bike facility would provide an opportunity to evaluate the attractiveness of separated bike lanes downtown, the conflict between right turning vehicles and cyclists at intersections, the potential conflict at transit stops, and the impact on vehicle capacity.

* * * * *

Survey to the British Columbia Trucking Association (BCTA)

City of Vancouver - Downtown Separated Bike Lanes Survey

Please take a few minutes to complete this short survey to help develop a BCTA position on the City's plans to create permanent separated bike lanes from the Dunsmuir Viaduct to the Burrard Bridge.

BCTA will also share a summary of the results with the City of Vancouver. The results will be presented in aggregate to maintain confidentiality. Personal information that could be used to identify you or your company will not be disclosed under any circumstance without your prior written permission.

1. How has the separated bike lane on the Dunsmuir Viaduct affected travel for your company with respect to the following factors?

	Increased	Decreased	No change	Don't know
Travel time into the Downtown area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General ease of access to the Downtown area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Congestion on the Dunsmuir Viaduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manoeuvrability on the Dunsmuir Viaduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other factors/comments:

2. Which of the following options would you prefer to connect the bike lane on the Burrard Bridge to the bike lane on Dunsmuir Street?

- Southbound bike lane on Thurlow Street; Northbound bike lane on Hornby Street
- Southbound bike lane on Burrard Street; Northbound bike lane on Hornby Street
- Northbound and southbound bike lanes on Hornby Street
- None of the above
- Other (please specify)

3. Rank the following factors in the order of importance that the City should assign to them when drawing up plans to connect the bike lane on the Dunsmuir Viaduct to the bike lane on Burrard Bridge. (1 = most important; 4 = least important)

	1	2	3	4
Capacity (e.g. loss of a travel lanes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Circulation (e.g. turn restrictions at select intersections)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access (e.g. no entry to select side street/lanes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On-street uses (e.g. loss of select loading zones)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>			

4. Do you support having separated bike lanes on the following road segments?

	Yes	No	Don't know
Dunsmuir Viaduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dunsmuir Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thurlow, Burrard, or Hornby Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Burrard Bridge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. What is (or will be) the impact of separated bike lanes on each of these road segments on your company's operations?

	Positive Impact	No impact	Negative Impact	Don't know
Dunsmuir Viaduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dunsmuir Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thurlow, Burrard, or Hornby Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Burrard Bridge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How many of the following vehicles does your company operate in the Downtown area on a typical day?

Charter buses	<input type="text"/>
Straight trucks (GVW less than 11,794 kg)	<input type="text"/>
Straight trucks (GVW 11,794 kg or more)	<input type="text"/>
Tractor-Trailers	<input type="text"/>

7. During which hours does your company typically operate in the Downtown area? (Select all that apply)

- 6 am to 9 am
- 9 am to 3 pm
- 3 pm to 7 pm
- 7 pm to 6 am

8. Please provide additional comments in the space below.

9. Optional Information

Your name:

Company:

E-mail:

Thank you!

Business Reply Mail

No postage stamp necessary if mailed in Canada

Postage will be paid by



IMPORTANT SURVEY

1000013633-V5Y1V4-BR01



SEPARATED BIKE LANES
ENGINEERING SERVICES
453 12TH AVE W
VANCOUVER BC V5Y 9Z9

COMING SOON TO DUNSMUIR STREET Separated Bike Lane



WHAT IS THE DUNSMUIR STREET SEPARATED BIKE LANE?

On-street bike lanes that separate cyclists from vehicle traffic are planned for the Downtown to connect the bike lanes already on the Burrard Bridge and the Dunsmuir Viaduct.

A two-phase approach is proposed for constructing the Downtown bike lanes.

Phase 1 of this project involves Dunsmuir Street and would begin this summer.

Legend

- Existing separated bike lanes
- Phase 1 separated bike lane
- Phase 2 separated bike lane



BUILDING THE DOWNTOWN BIKE LANES

The concept of the Downtown separated bike lanes has been approved by Council. These lanes will make walking and cycling to work and shopping more comfortable.

A two-phase approach is proposed for constructing the Downtown bike lanes:

PHASE 1: EAST - WEST CONNECTION

A four-metre-wide bike lane would be constructed on the street, separated from vehicle traffic for cyclists travelling in both directions along Dunsmuir Street.

PHASE 2: NORTH - SOUTH CONNECTION

Bike lanes separated from vehicle traffic would connect Dunsmuir Street to the Burrard Bridge along one or more of the following streets: Burrard, Hornby or Thurlow.

HOW DOES THIS AFFECT ME?

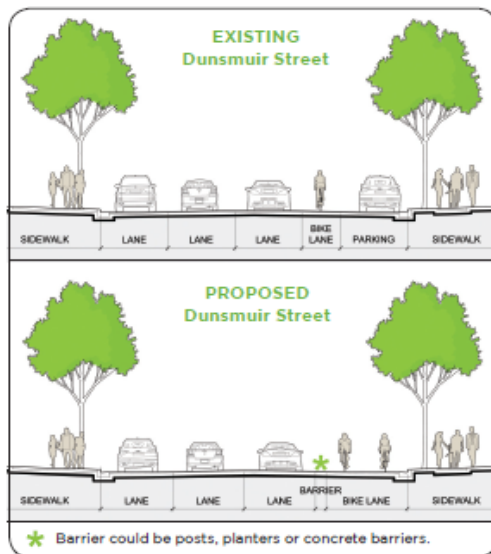
Part of the road on Dunsmuir Street will be used to accommodate the bike lane. Depending on the block, this may result in:

- relocating existing bus stops
- decreasing the number of loading zones and on-street parking spaces
- introducing some turn restrictions at the intersections.

WHAT ARE THE BENEFITS?

The Downtown separated bike lanes have the potential to significantly increase the number of people who choose to cycle. This increase in cycling traffic can have a positive impact on customer traffic for businesses located along Dunsmuir Street.

The separated bike lanes will also create a more comfortable walking experience for pedestrians - the bike lane acts as a buffer between pedestrians and vehicle traffic.



WHAT'S NEXT?

1. Review your input and finalize the design for Phase 1
2. Present the final design for Phase 1 to Council in late spring for their approval
3. Construct Phase 1 in summer 2010
4. Begin consultation for Phase 2 in spring/summer 2010
5. Monitor vehicle and bicycle traffic

YOUR INPUT

Please detach and fill in the survey below and mail by April 26, 2010.

For more information about this project, please visit vancouver.ca/cycling or call 311

WE WOULD LIKE TO HEAR FROM YOU!

Is your business located:
 On Dunsmuir Street
 What is the nearest cross street?
 Near Dunsmuir Street
 Which street? _____

Which best describes your business:
 café/restaurant, retail, or service located on street level
 office(s) located in a multi-storey building
 hotel/accommodations
 other; please describe: _____

Which of the following bike lane considerations are the most important to you?
 Please rank the following considerations in order of importance using a scale of 1 to 4. Use each number only once (1 = most important, 4 = least important)
 — access to loading zones and/or customer access to parking
 — changes to the location of existing bus stops
 — changes to the number of traffic lanes on the street
 — type of barriers that will be used to separate vehicles from the bike lane

Is there another bike lane consideration that we've missed?

Additional comments:

Please detach and mail by April 26, 2010

On-line Survey Questions

1. Do you own or operate a business in Downtown?

- Yes
- No

2. Is your business located:

- On Dunsmuir Street (please identify nearest cross street)
- Near Dunsmuir Street (please identify which street)
- Neither on nor near Dunsmuir Street (please identify which street)

3. Which best describes your business:

- Café/restaurant, retail, or service located on street level
- Office(s) located in a multi-storey building
- Hotel/accommodations
- Other

4. Which of the following bike lane considerations are the most important to you? Please rank the following considerations in order of importance using a scale of 1 to 4. Use each number only once (1 = most important, 4 = least important)

- Access to loading zones and/or customer access to parking
- Changes to the location of existing bus stops
- Changes to the number of traffic lanes on the street
- Types of barriers that will be used to separate vehicles from the bike lane

5. Please check the option that best describes how you typically travel around the city:
I usually:

- Drive or carpool
- Ride a bike
- Take transit
- Walk
- Other, please specify

6. An on-street separated bike lane uses a physical barrier to separate cyclists from vehicle traffic. A combination of the following types of barriers may be used on Dunsmuir Street. Please check the type of barrier that you most prefer:

- Posts
- Planters
- Concrete barriers
- Median
- Parking

7. In your opinion, how important is it for the separated bike lanes in Downtown to connect to key Downtown destinations such as Pacific Centre, Vancouver Art Gallery, and/or GM Place?

- Very important
- Somewhat important
- Not at all important

8. In your opinion, how important is it for the separated bike lanes in Downtown to connect to existing cycling infrastructure, such as the seawall bike path?

- Very important
- Somewhat important
- Not at all important

Space was provided for any additional comments and respondents could enter their email address if they were interested in receiving updates about the project.

COMMUNICATIONS PLAN

It is important to have a strong communications component on a project involving a major transportation route into downtown - which has implications for public transportation, commuting and surrounding businesses.

The communication plan will:

1. provide the public with key information via the use of mass media, localized information and the web about the implementation of the plan, including traffic changes and travel alternatives
2. clearly present the goals of the initiative: to attract more people to cycling and foster a shift in sustainable modes of transportation
3. clearly present the links between this project and the broader policies, such as the Greenest City initiative and the Transportation Plan
4. provide the public with the opportunity to generate ongoing feedback which can be factored into the ongoing evaluation of the initiative

Additional specific objectives of the communication plan are to:

1. encourage the use of the separated bike lane on Dunsmuir Street for residents and visitors who want to take advantage of the convenient access to many key amenities downtown
2. motivate more residents to use the separated bike lane as part of their normal commute to and from work
3. encourage motorists to consider alternatives for commuting or traveling to destinations along Dunsmuir Street, and change routes by providing information on nearby alternative routes
4. encourage unaccompanied motorists to consider alternatives such as car pooling or trying sustainable modes instead

The activities and tactics listed below provide a general overview of the key elements of the information campaign. These include, but not limited to:

1. Community and media event (e.g. maximizing opportunities to encourage sustainable commuting choices through promotional events with Bike Month and other significant opportunities)
2. Paid media campaigns (based on an analysis of the most cost-effective strategies for reaching target audiences and working with Communications - i.e. radio, online, print for downtown commuters, east end residents, etc.)
3. Broad media-relations activities that include a news release to launch the project when the report goes to Council, a press event for the opening, pitched media stories, ongoing spokesperson availability, and rigorous issues management
4. A customized suite of web pages which engage and provide information through diagrams and online video(s) (vancouver.ca and RoadAhead)
5. Social media, such as tweets, facebook, and a moderated blog commentary
6. Collateral material development, which may include a sign or banner on the Dunsmuir Viaduct; community posters; and testimonials from bike lane users

TIMELINE

The timeline is to be finalized, but will be aligned with key milestones approved by Council.

BUDGET

Wherever possible, the public education and awareness costs would be leveraged through partnership arrangements with community, advocacy, corporate, or other agencies. A maximum of \$25,000 would be made available for development of the on-line video and \$15,000 for the Bike Month Fair. Approximately \$60,000 would be available for project management and event support, as well as for advertising to support the public information goals for the project. This brings the total budget allocation for a public information campaign to \$100,000.