



ADMINISTRATIVE REPORT

Report Date: April 25, 2012
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Meeting Date: May 16, 2012

TO: Standing Committee on Planning, Transportation and Environment
FROM: General Manager of Engineering Services
SUBJECT: 2012 Active Transportation Capital Projects

RECOMMENDATION

THAT Council approve the following Active Transportation Capital projects, as described in this report, for construction in 2012: 45th Avenue Bikeway between Ontario and Nanaimo Streets; Dumfries Bikeway between 37th and 59th Avenue; Ridgeway Greenway revised plan between Nanaimo and Rupert Streets; North Arm Trail revised plan between Cambie and Ontario Streets; and Union Street at Hawks Avenue as part of the Adanac Bikeway. Source of funds from the Council approved 2011 Carry Forward and 2012 Active Transportation Corridors and Spot Improvements Program.

REPORT SUMMARY

The following report describes five active transportation projects that are ready for construction in 2012 and will complete much of the remaining cycling work plan approved by Council on May 6, 2010. One exception is the Comox-Helmcken Greenway which is currently in the consultation phase and will be reported to Council later this year. Future active transportation projects that are brought to Council will be informed by the Transportation 2040 Plan.

Four of the five active transportation projects described in this report will complete existing bikeway/greenway gaps in the network and build upon projects that were completed in 2011. They will also provide active transportation connections to schools and parks. The fifth project will make pedestrian safety improvements to an existing bikeway. All five projects will make improvements for both active transportation modes (walking and cycling) and many of these improvements will be based on the findings of the recently completed Pedestrian Safety Study. Finally, these projects will provide further opportunity to better understand

how incremental improvements to the active transportation network will result in more walking and cycling trips in Vancouver.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

The 1995 Greenways Plan, adopted by Council, describes a system of greenways connecting all parts of the City. Greenways expand the opportunities for urban recreation, including walking and cycling.

The 1997 Transportation Plan, adopted by Council, identifies walking and cycling as the priority transportation modes within the City.

The 1999 Bicycle Plan, adopted by Council, identifies 12 action items to improve cycling in Vancouver, including a network of bicycle routes throughout the City.

Vancouver 2020: A Bright Green Future Report was approved by Council in 2010 and highlights ways to facilitate walking and cycling including providing additional traffic calming and space for pedestrians, enhancing greenways, and improving connections between bikeways.

Council approved the FUNDING for these projects through the 2011 Carry Forward and 2012 Active Transportation Corridors Spot Improvements Program.

REPORT

Background/Context

The City of Vancouver's 1997 Transportation plan identified the sustainable modes (walking and cycling) as top transportation priorities to continue to support the City's growth in population, jobs, and total trips. Since that plan, these transportation priorities have been reinforced in 2010, through the Greenest City Action Team's report *Vancouver 2020 "A Bright Green Future"*. Furthermore, the City is currently updating its Transportation Plan. In order to meet these goals, the number of walking and cycling trips must increase; the projects identified in this report support that.

Improving walking and cycling infrastructure for safety and comfort is one of the essential components to attracting people to these modes. The 2006 Canadian Census reported that Vancouver's walk to work mode share was 12.2% and its bike to work mode share had increased to 3.7%. Comparing this information to 30 other North American cities shows that Vancouver stands out as a leader in active transportation. However, the demographics show a disparity between ages and genders when it comes to walking and cycling to work (see Table 1). In general, both men and women tend to choose the active transportation modes less as they age and more men than women choose cycling as a commuting option.

The City of Vancouver has built a strong foundation upon which to further develop walking and cycling as appealing and safe transportation options for residents and visitors. This includes policies in support of walking and cycling, an expanding active transportation network that meets the needs of people of all ages and abilities, and a sustained funding commitment to implement walking and cycling infrastructure.

Table 1: Vancouver Commuting to Work Walking and Cycling Mode Share by Age & Gender
(Source: 2006 Census Journey to Work)

Age Group	WALKING			CYCLING		
	Walking Mode Share of Males	Walking Mode Share of Females	Pedestrian Mode Share	Cycling Mode Share of Males	Cycling Mode Share of Females	Cycling Mode Share
15 - 24 years	13.4%	16.3%	15.0%	3.9%	2.6%	3.2%
25 - 34 years	13.3%	16.2%	14.7%	5.8%	4.3%	5.0%
35 - 44 years	11.1%	12.2%	11.6%	5.1%	2.9%	4.1%
45 - 54 years	7.9%	10.4%	9.1%	3.9%	1.9%	2.9%
55 - 64 years	9.3%	10.9%	10.0%	2.8%	1.4%	2.1%
65 years and older	10.9%	14.4%	12.1%	1.0%	1.1%	1.0%
Total for all age groups	11.1%	13.4%	12.2%	4.5%	2.8%	3.7%

The following report highlights five projects to be constructed in 2012 (see Figure 1, Projects 1 thru 5) which will continue building on the strong foundation of the various 2010 and 2011 cycling projects and incorporate findings from the recently completed Pedestrian Safety Study. Improvements to the active transportation network, including filling in gaps and connecting key areas (i.e. schools, parks, community centres) within the city, continue to be undertaken to transition between the existing plans, which are largely complete, and the new Transportation 2040 Plan. It is anticipated that Transportation 2040 will focus on cycling routes that serve the highest concentration of cyclists and improve cyclist safety (i.e. high collision locations). Also, it is anticipated that Transportation 2040 will consider higher design standards for active transportation infrastructure, to encourage people of all ages and abilities to enjoy walking and cycling safely and more comfortably.

An example of improving the active transportation network by filling in gaps and connecting key areas is the Yukon Bikeway (see Figure 1, project 6). Bicycle lanes will be implemented on Yukon Street, between West 2nd Avenue and West 10th Avenue this Spring. This bikeway will provide a key connection to the Cambie Bridge, Off Broadway Bikeway, Seaside Bikeway/Greenway, and the Olympic Village Canada Line Station.

An example of a higher design standard for cycling infrastructure, in advance of Transportation 2040, was the trial of the Downtown Separated Bike Lanes which began in 2010 (see Figure 1, Project 8). Monitoring, including an economic impact analysis study, was carried out in 2011 and a further report back to Council is anticipated later in 2012.

Also with a higher design standard in mind, in particular for seniors in the West End and school children Downtown, extensive consultation began in 2011 on the Comox-Helmcken Greenway (see Figure 1, Project 7). Staff are currently developing a design that supports all

ages and all abilities and is based on feedback that was heard through the consultation process. Through the West End Community Plan and Transportation 2040, staff are reviewing parking issues and options to address them along the Comox-Helmcken corridor. Staff will report to Council on design concepts for the Comox-Helmcken Greenway later in 2012.

Subject to public consultation and Council approval, Transportation 2040 will create the policy framework that sets the next set of active transportation projects. Examples of cycling projects that could be considered for early implementation following approval of Transportation 2040 are enhanced cycling routes on the west-side (along Point Grey Road and Cornwall), in Grandview Woodlands (Commercial Drive) and along major commuting cycling routes on the east-side (Union/Adanac). These, and other projects, will undergo further review and consultation later in 2012.



Figure 1: 2012 Active Transportation Capital Projects

Strategic Analysis

The following discussion details the five projects (refer back to Figure 1) being proposed for construction in 2012. All five projects have funding approval, and have undergone public consultation and detailed design. For the project scope and details of each project, see Appendix A. These projects will fill existing gaps in the cycling network, provide active

transportation connections to schools and parks, provide pedestrian safety improvements, and provide further opportunity to evaluate how incremental improvements to the active transportation network will result in more walking and cycling trips in Vancouver.

45th Avenue Bikeway, Ontario Street to Nanaimo Street

The 45th Avenue Bikeway (Figure 1, Project 1), between Ontario Street and Nanaimo Street, will complete the east-west link between the Ontario Street and Ridgeway Greenways, intersect north-south bikeways in the area, and provide safer and more comfortable cyclist and pedestrian connections to schools and parks. Staff met with the South Fraser Business Improvement Association (SFBI) and residents to discuss proposed traffic diversion options on 45th Avenue. Residents and businesses were generally supportive of proposed bikeway facilities, lowering motor vehicle volumes and speeds, pedestrian curb bulges and increased green space, but were concerned about vehicle access to businesses. In response to this concern, staff have been working with the SFBI and Fraser Street business to develop a design that addresses concerns and is based on traffic data collected.

Dumfries Bikeway, 37th Avenue to 59th Avenue

The Dumfries Bikeway (Figure 1, Project 2) from East 37th Avenue to East 59th Avenue would connect the North Arm Trail and the portion of the 45th Avenue Bikeway between Ontario and Nanaimo Streets. It will provide the important north-south cycling network connection on the east side of Knight Street and directly link the Kensington Community Centre at Dumfries and East 37th Avenue to the neighbourhood to the south. Staff recommends, as part of this extension to the Dumfries Bikeway, that the Borden Street laneway, between East 57th and 59th Avenues, be closed to provide a comfortable walking and cycling connection in the neighbourhood. Staff have been contacted about vehicle short-cutting through this lane and 70% of the residents who responded to requests for feedback supported the proposal to close the laneway to motor vehicles.

Ridgeway Greenway Improvements

In 2009, staff were directed by Council to review and implement "measures to enhance the comfort and effectiveness of existing and planned bikeways and greenways by installing traffic calming measures including diversionary measures." In 2010, temporary diversionary measures were introduced at several locations throughout the city with the purpose of reducing vehicle volumes and speeds on the bikeways and greenways. The traffic diverters that were installed on East 45th Avenue at Clarendon/Elliot Street and Rupert Street (Figure 1, Project 3) reduced vehicle volumes on East 45th Avenue, but increased volumes at the front doors of nearby schools, on adjacent lanes and streets, and on the Sunrise Bikeway. Furthermore, vehicle violations significantly increased at the intersections of Clarendon/Elliot Street and Rupert Street as a result of the diverters.

As a result of the increased traffic on the neighbourhood and particularly at the schools, staff met with stakeholder groups to present a revised plan for the Ridgeway Greenway. At the various meetings staff heard that the diverters should be removed. Considering the negative effect the traffic diverters have had on the broader community and adjacent bikeway, staff recommends the removal of the temporary diverters. However, there was also concern about vehicle volumes and speeds and pedestrian and cyclist safety due to the removal of the temporary diverters. In response to these concerns and consistent with the original objective

of installing additional traffic calming measures, staff also recommend that additional pedestrian safety improvements and traffic calming be installed on East 45th Avenue, between Nanaimo and Rupert Streets; staff recommend that 2 raised crosswalks and 4 pedestrian bulges be installed, and that traffic be monitored to determine whether additional measures, such as speed humps, are required in the future.

North Arm Trail - Revised Plan

The North Arm Trail Greenway (Figure 1, Project 4) is an east-west route connecting Angus Drive to Vivian Drive; it runs primarily along 59th Avenue and Updland Drive. Staff are proposing two interrelated revisions to the original plan: reduced traffic calming and diversionary measures on a portion of the route. This will provide a safer, more comfortable route to a school and the Ontario Street Greenway.

Staff met with businesses and individual residents to present the revised plan. The main concerns heard were regarding lighting, the inconvenience of the remaining diversionary measure, and that the path next to the Langara Golf Course needs to be widened to safely accommodate both pedestrians and cyclists. Thus, staff recommend that the path be widened, adaptive lighting be installed, and that monitoring be undertaken to determine impacts of the diversionary measure.

Union Street at Hawks Avenue, Adanac Bikeway

Ever since a cyclist-only path was constructed through the centre of Strathcona Linear Park as part of the Adanac Bikeway (Figure 1, Project 5), residents, including the Strathcona Residents Association (SRA), have often and repeatedly cited safety concerns about pedestrians and cyclists sharing the area. In 2010, over 600 residents and cyclists signed a petition recommending safety improvements.

Staff have been working with the SRA to develop an improved design that would be a significant safety improvement for both pedestrians and cyclists who will continue to share this important community space along the Adanac Bikeway. The creation of new pedestrian and cyclist paths in this area will accommodate the growing demand for both active transportation modes, address residents' concerns, and make the surrounding area more accessible.

Implications/Related Issues/Risk (if applicable)

Financial

These projects, with a gross budget of approximately \$3,000,000, will be funded from the Council approved 2011 Carry Forward and 2012 Active Transportation Corridors and Spot Improvements Program. Corporate oversight of all capital projects for timeliness and fiscal certainty will be coordinated through a coordinated approach with Finance and Engineering. Quarterly reports on the capital budget will occur throughout 2012.

Environmental

These projects will improve the walking and cycling network by connecting green space, recreation, and other social gathering spaces. They will also

connect more of the primary and secondary schools in Vancouver to the existing greenway and bikeway system in an effort to get children walking and cycling to school. These greenways and bikeways also connect to community centres, recreational facilities, and other public services. In addition to building social capital, these projects will provide health and environmental benefits, because more people are out walking and cycling due to the improved walking and cycling network.

CONCLUSION

Staff recommend construction of the projects described in this report in 2012 to further develop the cycling network, fill existing gaps, and provide key active transportation connections to schools and parks. These projects will also provide important safety improvements for pedestrians. Furthermore, these projects provide opportunities to emphasize the City's transportation priorities of walking and cycling.

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Descriptions of Active Transportation 2012 Capital Projects

In advance of Council approving the Transportation 2040 Plan, staff recognize it is necessary to continue to work on improvements to existing pedestrian and cycling facilities based on past plans and emerging opportunities. Further development of the bike network now has an expanded view to include walking. The five projects noted below have funding approval, undergone public consultation and designs that are ready for construction in 2012.

45th Avenue Bikeway, Ontario Street to Nanaimo Street

Budget:	\$600,000
Source of funds:	2012 Active Transportation Corridors and Spot Improvements
Cost sharing:	\$200,000 (TransLink - BICCS)

The 45th Avenue Bikeway, Ontario Street to Nanaimo Street, will complete the missing link between the Ontario Street and Ridgeway Greenways (see Figure 2). It will provide safer and more comfortable cyclist and pedestrian connections to Sir Sandford Fleming School, Memorial Park, MacDonald Park, and Nanaimo Park. This portion of the route will also intersect the Prince Edward Bikeway, Inverness Bikeway, and the proposed Dumfries Bikeway. This connection will incorporate features common to other local street bikeways in Vancouver: curb ramps, pedestrian curb bulges, one-way priority bulges, partial closures, traffic circles, and a pedestrian/cyclist activated traffic signal. These improvements will shorten crossing distances for pedestrians, improve pedestrian accessibility, reduce motor vehicle volumes and speeds, improve safety and comfort, and increase green space.

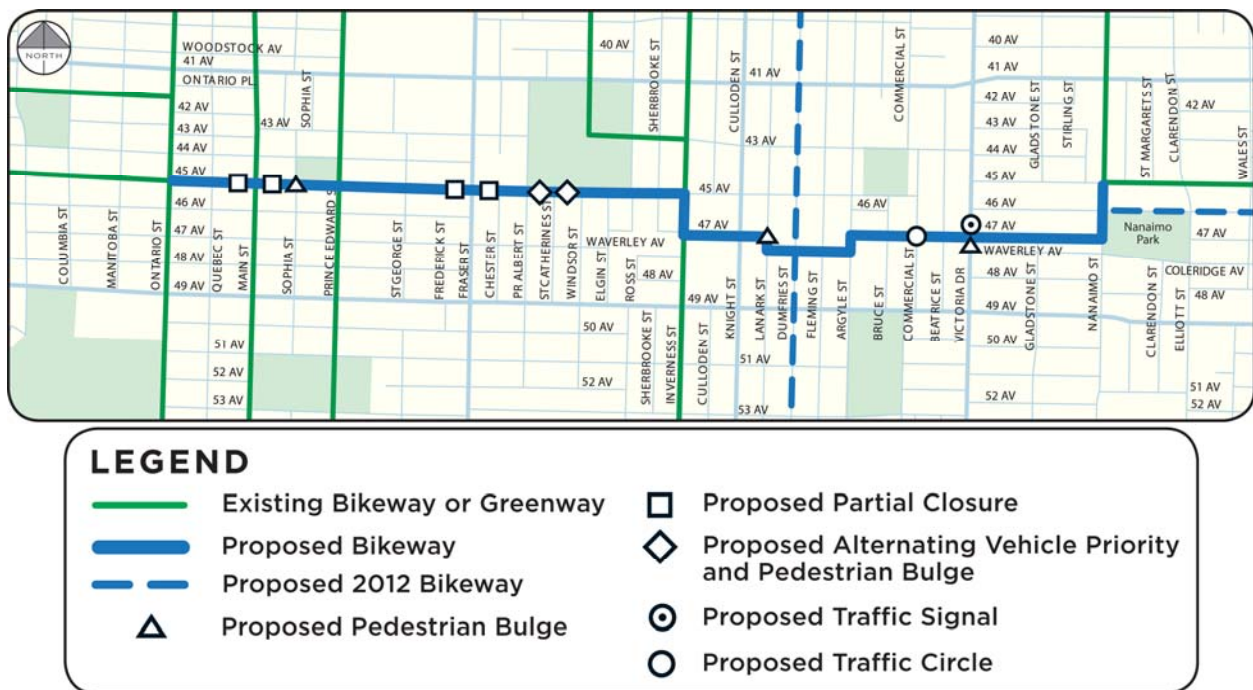


Figure 2: 45th Avenue Bikeway, Ontario Street to Nanaimo Street

Staff met with the South Fraser Business Improvement Association (SFBIA) and residents to discuss proposed traffic diversion options on 45th Avenue. Residents and businesses were generally supportive of proposed bikeway facilities, lowering motor vehicle volumes and speeds, pedestrian curb bulges and increased green space, but were concerned about vehicle access to businesses. In response to this concern, staff have been working with the SFBIA and Fraser Street business to develop a design that addresses concerns and is based on traffic data collected.

Dumfries Bikeway, 37th Avenue to 59th Avenue, Project Scope and Borden Laneway Details

Budget:	\$400,000
Source of funds:	2012 Active Transportation Corridors and Spot Improvements
Cost sharing:	\$200,000 (TransLink - BICCS)

In April 2003, Council approved the Clark-Knight Whole Route Analysis Project which recommended providing safer and more accommodating routes for pedestrians and cyclists along the Clark-Knight Corridor. The Dumfries Bikeway, between East 14th and East 37th Avenues, was constructed in 2011 to begin filling the cycling network gap east of Clark-Knight, connecting the existing Mosaic Bikeway and the Ridgeway Greenway. The Dumfries Bikeway from East 37th Avenue to East 59th Avenue will connect the North Arm Trail and the portion of the 45th Avenue Bikeway between Ontario and Nanaimo Streets (see Figure 3). It will provide the important north-south cycling network connection on the east side of Knight Street and directly link the Kensington Community Centre at Dumfries and East 37th Avenue to the neighbourhood to the south.



Figure 3: Dumfries Bikeway, East 37th Avenue to East 59th Avenue

To provide a comfortable walking and cycling connection in the Fraserview neighbourhood, staff recommends that the Borden Street laneway, between East 57th and 59th Avenues be closed (see Figure 4). The remaining East/West laneways in the neighbourhood would remain open across the corridor to provide residents access to the back of their properties. The laneway is the preferred route for the bikeway since it provides a direct connection between the neighbourhood and the local schools and already has amenities, such as lighting. The City's Engineering Department has been contacted about vehicle short-cutting through this lane and has found approximately 500 vehicles per day using the lane. A typical lane would carry approximately 100 vehicles per day. It is expected that the traffic in the laneway would be redistributed to the arterial street network and there would be no significant impacts to other local streets.



Figure 4: Borden Laneway

A letter seeking comments on the plan was delivered in January 2012, to the 70 properties expected to be impacted by the implementation of the bikeway. A second letter was delivered in March 2012, with a proposed detailed design for the corridor and requesting feedback. Staff also visited the neighbourhood in March 2012, to collect feedback. The response rate was 17% and 70% of the residents who responded supported the proposal to close the laneway to motor vehicles.

The action plan for the Dumfries Bikeway, 37th Avenue to 59th Avenue, includes: a pedestrian/cyclist-only corridor along the Borden laneway, a raised crosswalk, pedestrian curb bulges, curb ramps, traffic circles, and a pedestrian/cyclist activated traffic signal. These improvements will provide a comfortable walking and cycling route as an alternative to Knight Street, better connect David Thompson Secondary School and Sir James Douglas Annex, shorten crossing distances for pedestrians, improve pedestrian accessibility, reduce motor vehicle volumes and speeds, improve safety and comfort, and increase green space.

Ridgeway Greenway Improvements

Budget:	\$650,000
Source of funds:	2012 Active Transportation Corridors and Spot Improvements
Cost sharing:	none

In 2009, staff were directed to review and implement “measures to enhance the comfort and effectiveness of existing and planned bikeways and greenways by installing traffic calming measures including diversionary measures.” In 2010, temporary diversionary measures were introduced at several locations on local street bikeways throughout the city with the purpose of reducing vehicle volumes and speeds on the bikeways and greenways.

The traffic diverters that were installed on East 45th Avenue at Clarendon/Elliot Street and Rupert Street did reduce vehicle volumes on East 45th Avenue, but increased volumes at the front doors of Waverley and Weir Elementary Schools, on adjacent lanes and streets, and on the Sunrise Bikeway. Furthermore, vehicle violations significantly increased at the intersections of Clarendon/Elliot Street and Rupert Street as a result of the diverters.

As a result of the increased traffic on the neighbourhood and particularly at the schools, staff met with stakeholder groups (Killarney Community Centre Society, Killarney Community residents, and residents living along 45th Avenue) in February and March 2012, to present a revised plan for the Ridgeway Greenway. At the various meetings staff heard that:

- the temporary traffic diverters at East 45th Avenue at Clarendon/Elliot Street and Rupert Street should be removed as soon as possible;
- there is concern regarding the vehicle volumes and speeds along 45th Avenue;
- additional traffic calming should be implemented along 45th Avenue to enhance pedestrian and cyclist safety; and
- the proposed neighbourhood connections through Killarney Park are consistent with the Killarney Park Master Plan.

Considering the traffic diverters have negatively affected the broader community and adjacent bikeway, staff recommends the removal of the temporary diverters (see Figure 5). However, staff recommends that additional pedestrian and traffic calming measures installed on East 45th Avenue, between Nanaimo and Rupert Streets. These measures will include raised crosswalks and pedestrian curb bulges and will be placed at intersections along 45th Avenue to slow approaching vehicles and make pedestrians more visible to drivers. Staff recommends that these traffic calming measures be installed and that traffic speeds be monitored to determine whether additional measures are required on 45th Avenue. In addition, staff recommends that neighbourhood pedestrian and cycling connections be established on East 46th Avenue and through Killarney Park to provide additional walking and cycling facilities in the area, which is consistent with the Killarney Park Master Plan.



Figure 5: Ridgeway Greenway Improvements

North Arm Trail - Revised Plan Project Scope and Details

Budget: \$1.1 million for work described below
 Source of funds: 2011 and 2012 Greenways Capital
 Cost sharing: \$100,000 (TransLink - BICCS)

The North Arm Trail Greenway is an east-west route connecting Angus Drive to Vivian Drive; it runs primarily along 59th Avenue and Upland Drive. Construction began in 2011 and is nearly complete at several locations. The section of North Arm Trail between Heather Street and Ontario Street is scheduled for construction in 2012 (see Figure 6).

Staff propose that the original plan for this section be revised as follows:

- Reduce the degree of traffic calming and diversionary measures on 59th between Heather and Ontario by:
 - Eliminating the planned diagonal diverter at Ontario, alternating priority bulges west of Cambie, pedestrian bulges at Columbia and at Yukon
 - Maintaining the right-in right-out diverter at Cambie and 59th (west leg)
 - Maintaining the pedestrian bulges on 59th at Manitoba (at Sexsmith Elementary School)
- Provide a safer, more comfortable connection to Sexsmith School and the Ontario Street Greenway for cyclists who are not comfortable riding on busy streets by:
 - Constructing a separated bi-directional bike lane on the east side of Cambie between 58th and 59th
 - Constructing a wider, well-lit, off-street pedestrian and cyclist path on 58th between Alberta and Ontario

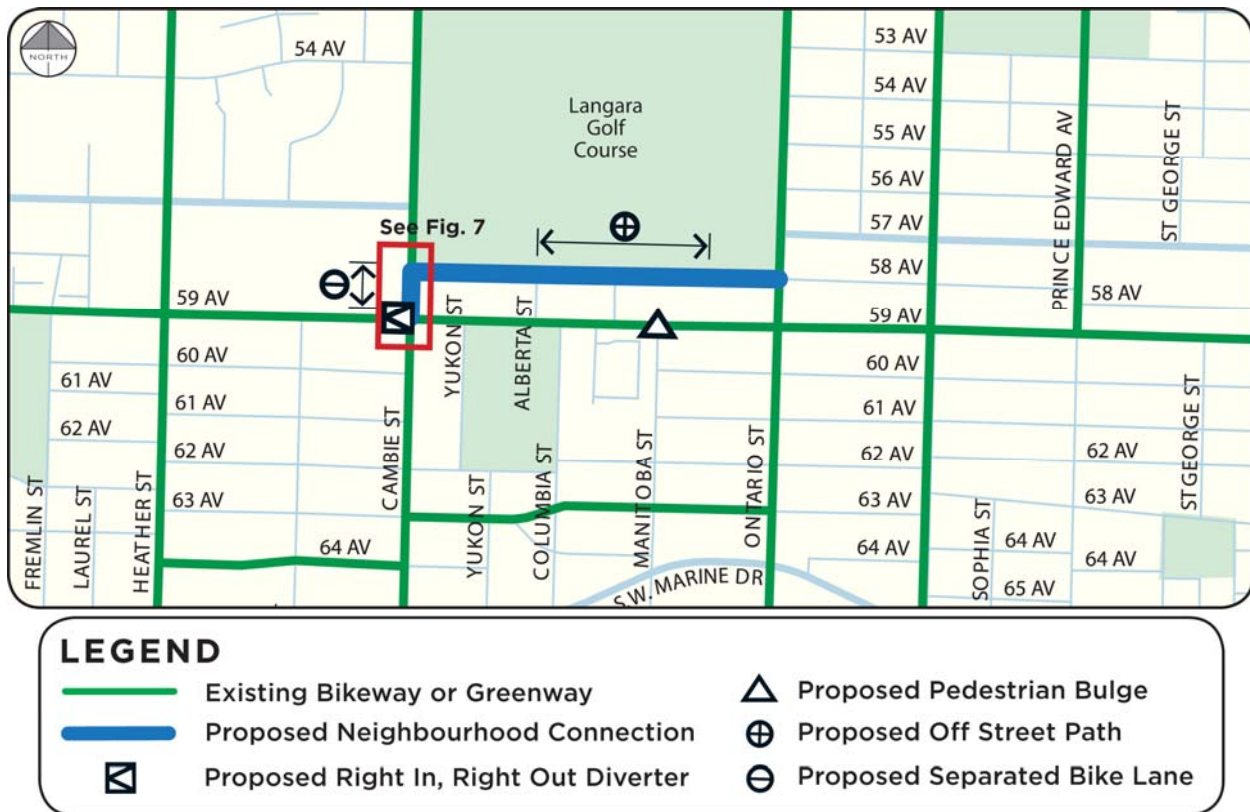


Figure 6: North Arm Trail, Cambie Street to Ontario Street, revised plan

In February and March 2012, staff met with businesses and individual residents on Cambie to explain the revised plan. Residents and business owners stated that, in order to accommodate the separated bike lane on Cambie, they prefer to retain parking on Cambie and move the existing sidewalk east closer to the property line.

In March 2012, staff held a Community Meeting to explain the revised plan. Described below are the 3 main concerns which were raised, and staff's recommended actions:

1. The section of 58th Avenue street right-of-way between Alberta and Columbia is part of the Langara Golf Course perimeter path, and is considered too narrow to accommodate both pedestrians and cyclists.

Staff recommend that this path be widened to at least 4m to accommodate shared use between cyclists and pedestrians, and that signage be added to indicate that cyclists must yield to pedestrians.

2. The proposed pedestrian and cyclist lighting on the 58th Avenue path may encourage criminal or anti-social behaviour.

Staff recommend that adaptive lighting be installed along the path so that lights turn off at 10pm.

3. Installation of a right-in right-out diverter at 59th and Cambie will make travel across Cambie inconvenient, and may increase vehicle volumes on Heather Street Bikeway north of 59th Avenue.

Staff recommend that the right-in right-out diverter be installed, and that traffic be monitored to determine whether negative impacts are being felt on Heather Street (see Figure 7).

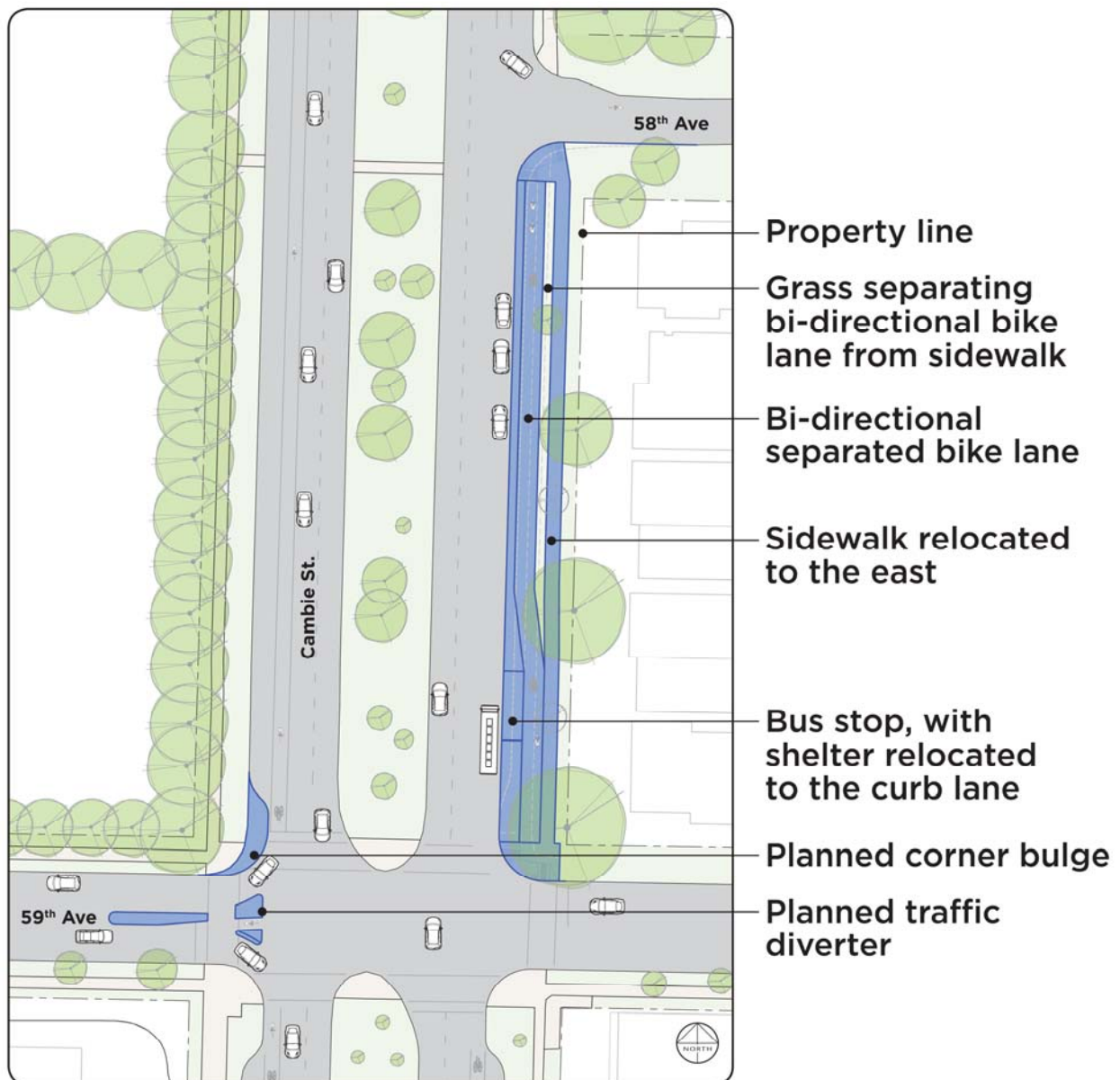


Figure 7: Cambie Street separated bi-directional bike lane

Union Street at Hawks Avenue, Adanac Bikeway

Budget:	\$175,000
Source of funds:	2012 Active Transportation Corridors and Spot Improvements
Cost sharing:	none

When the Strathcona Linear Park was designated in 1976 to link Strathcona Park with Mclean Park, Union Street at Hawks Avenue was closed to through vehicle traffic. In 1992, when City Council approved the implementation of the Adanac Bikeway, the existing pedestrian sidewalks were widened for cyclists and pedestrians to share through the park. In September 2003, City Council approved funding to make pedestrian and cyclist improvements to the Adanac Bikeway where it passed through the Strathcona Linear Park. These improvements included the construction of a new cyclist-only path through the centre of the park to separate pedestrians and cyclists (see Figure 8). However, in 2003, when the path was constructed, there were approximately 1000 cyclists per day using this portion of the Adanac Bikeway. Now, over 3000 cyclists per day (Summer 2011) pass through the Strathcona Linear Park at Union Street and Hawks Avenue.

Residents have cited concerns about the speed of bicycles, sharing the area with cyclists, and difficulty crossing Union Street since the Strathcona Linear Park was previously a pedestrian only area. The Strathcona Residents Association have been advocating for pedestrian safety improvements to be made where the Adanac Bikeway passes through the park, as well. In 2010, over 600 residents and cyclists advocating for improvements signed a petition. Staff have been in contact with members of the SRA to develop a design that would be seen as an improvement to the community (the original path is viewed as solely a cyclist improvement). The community would like to slow cyclists in the vicinity of the park, enforce the stop sign at the edge of the park, maintain the look of the park, and provide general pedestrian improvements and amenities. An initial meeting with staff and 6 members of the SRA reviewed the proposed design and many comments and suggestions were brought forward by the working group.

Staff recommends substantial cycling and pedestrian improvements in the vicinity of the Union and Hawks intersection (see Figure 9). A new cyclist path alignment is proposed to slow cyclists traveling through the park. New pedestrian paths will also be constructed to make the area fully accessible and easier to navigate. Since the existing bike path crosses over the pedestrian sidewalk, this is a safety concern for vulnerable pedestrians such as the elderly or children who may be crossing the bike path. Building standard curb ramps at the crossing will alert all users of approaching cyclists. To enhance the pedestrian realm, pedestrian bulges will be constructed on the east side of the street to provide a shorter crossing distance of Union Street and to provide better sightlines between pedestrians and parked cars. A new path connection will also be built between the Strathcona Linear Park and the pedestrian signal at Prior Street to improve the connection to the Strathcona Community Garden. As part of the redesign, a new pedestrian plaza with benches and a water fountain and a cyclist plaza with a bicycle pump and bicycle counter display will be constructed.

Union and Hawks is an important safety improvement for pedestrians and cyclists along the Adanac Bikeway. It is anticipated that the next improvement along the corridor will be the section on Union Street from Gore Street to Carrall Street. Preliminary designs will be reviewed later in 2012 including consultation with any impacted adjacent properties.



Figure 8: Existing conditions at Union Street and Hawks Avenue

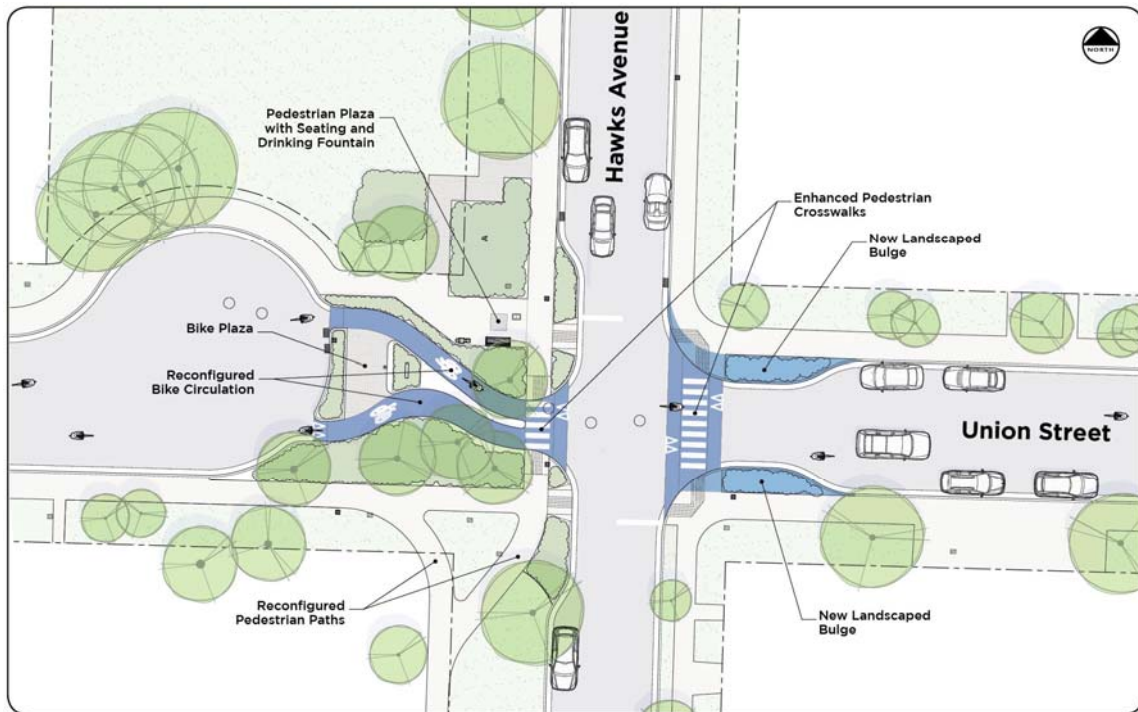


Figure 9: Proposed design for Union Street at Hawks Avenue