

From:	"Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>
To:	"Direct to Mayor and Council - DL" <CCDTMACDL@vancouver.ca>
Date:	2/2/2016 2:24:20 PM
Subject:	Request to Staff - RTS 1196 - City of Vancouver Best Practices for Pedestrian and Cycling Safety
Attachments:	CMO - Request to Staff -Mayor and Council - RTS #11196 - CoV Best Practices for Pedestrian and Cycling Safety -2016.01.20.pdf

Dear Mayor and Council,

Please see the attached memo from Jerry Dobrovolny, General Manager - Engineering, on the City of Vancouver's best practices for ensuring safety for pedestrians & cyclists and methods to support the VPD 529 Garage program for registering bicycles. A short summary of the memos is as follows:

- The City has completed a Pedestrian Safety and a Cycling Safety Study that undertook a comprehensive review of best practices worldwide. This review was used to develop the tools and action plan to improve safety for these vulnerable road users. A summary of the status of the action plans is provided.
- In addition to the action plans City staff are also working with schools to improve active travel and safety. Since inception in 2013 there have been 18 schools with plans developed or underway.
- City staff are supporting the VPD 529 Garage program generally by helping to promote it through existing consultation and outreach programs as well as through the safe and active routes to school program.

Regards,

Sadhu A. Johnston, LEED AP
Acting City Manager
City of Vancouver

sadhu.johnston@vancouver.ca
o. 604.873.7627
twitter: sadhuajohnston
www.vancouver.ca



ENGINEERING SERVICES
Jerry Dobrovlny, P.Eng.
City Engineer/General Manager

MEMORANDUM

January 20, 2016

TO: Mayor and Council

CC: Sadhu Johnston, Acting City Manager
Paul Mochrie, Acting Deputy City Manager
Janice MacKenzie, City Clerk
Lynda Graves, Manager, Administration Services, City Manager's Office
Rena Kendall-Craden, Director, Communications
Mike Magee, Chief of Staff, Mayor's Office
Kevin Quinlan, Deputy Chief of Staff, Mayor's Office
Braeden Caley, Director, Policy and Communications, Mayor's Office
Lon LaClaire, Acting Director of Transportation

FROM: Jerry Dobrovlny, General Manager of Engineering Services

SUBJECT: Report Back on City of Vancouver Best Practices for Pedestrian and Cycling Safety (RTS 11196)

This memo is in response to Council's motion to report back on best practices for ensuring safety for pedestrians & cyclists and methods to support the VPD 529 Garage program for registering bicycles. Staff have completed an extensive review of best practices from around the world as part of the City's comprehensive pedestrian and cycling safety studies and a summary of the adopted best practices is provided below.

Background

The City of Vancouver is one of the most pedestrian and bicycle-friendly cities in North America. According to ICBC data between 1996 and 2010, the number of overall traffic collisions and the number of pedestrian collisions have been steadily declining in the City of Vancouver. In spite of significant increases in population over this period (20%), the total number of collisions in the City decreased by 52% and the total number of collisions involving pedestrians declined by 34%.

Although this is encouraging as a positive long term trend, much work needs to be done as approximately 48,000 traffic collisions occurred in Vancouver in 2013, resulting on 15 fatalities and around 15,100 injuries. The City of Vancouver is committed to doing even more to make walking and cycling safe, accessible and enjoyable for people of all ages and

City of Vancouver, Engineering Services
320-507 West Broadway
Vancouver, British Columbia V5Z 0B4 Canada
tel: 3-1-1, Outside Vancouver 604.873.7000
website: vancouver.ca



abilities. Walking and cycling were identified as top priorities in the City's 1997 Transportation Plan and the 2002 Downtown Transportation Plan and continue to be the highest priorities in the Transportation 2040 Plan with the addition of a zero fatality safety goal. This puts a strong emphasis on safety for pedestrians and cyclists who are among the most vulnerable road users.

Steps have been taken to improve traffic safety in recent years, including the completion of a Pedestrian Safety Study, a Cycling Safety Study, installation of engineering treatments such as intersection cameras, pedestrian countdown timers, speed reader boards, corner bulges, LED lighting, bike boxes, protected bicycle lanes, and dedicated bicycle signals among other treatments. In addition, the City has worked with partners such as the Insurance Corporation of British Columbia (ICBC), Vancouver Police Department (VPD) and the Vancouver School Board (VSB) to enhance education and enforcement to improve traffic safety.

Pedestrian Safety Study & Action Plan

In 2012, the City completed its first-ever pedestrian safety study. The study involved an in-depth analysis of all reported collisions involving pedestrians in the City of Vancouver between 2005 and 2010. The analysis examined where collisions were occurring, when they took place, who was involved in the collisions, and how the collision occurred. The analysis was based on collision data provided by ICBC and VPD. Based on the results of the collision analysis, the study identified the following twelve key pedestrian safety issues:

- When:
 - Winter and Adverse Weather Conditions
 - High Activity Periods
 - Late night
- Who:
 - Senior Fatalities
 - Young Adults
- Where:
 - Intersections
 - Arterial Corridors
 - Local Street Intersections
- What & How:
 - Left Turning Vehicles at Intersections
 - Right Turning Vehicles at Intersections
 - Jaywalking
 - Driver Failure to Yield

The study results were first presented to Council in May 2012 and the Pedestrian Safety Study Action Plan included engineering, education and enforcement countermeasures recommended to address each issue. From the engineering perspective, 69 treatments were suggested at priority locations. Up to now, 68 out of the 69 treatments (99%) have been completed. A detailed list of the 69 recommendations and progress can be found on Table 1 in the Appendix. The remaining outstanding item is a left turn phase at Oak and 12th which is expected to be completed in 2016.

Next steps will include a review of 2014 ICBC collision data when it becomes available to determine the effectiveness of the measures and guide further implementation. Staff plan to report to Council in the spring on the next round of pedestrian safety projects. There will

also be an annual update to assess the progress towards the City's zero transportation related fatality goal.

For more information please visit:

<http://vancouver.ca/files/cov/pedestrian-safety-study-2012-final-report.pdf>

Cycling Safety Study & Action Plan

A similar comprehensive study was commissioned by the City of Vancouver to review the safety of cycling in Vancouver and to create an action plan to address identified issues. The work leading up to the study involved a detailed analysis of cycling collision and injury data between 2007 and 2012 in the City of Vancouver to understand where, when and how cycling collisions occurred and who was involved, along with an evidence-based action plan to improve cycling safety. In addition, the study analyzed the injury data from bicycling crashes that resulted in treatment at a hospital emergency room in Vancouver in 2008 and 2009.

Based on the analysis of reported cycling collision data from ICBC and supported by the cycling injury crash data, the study identified twelve key cycling safety issues:

- When
 - PM Peak
 - Adverse Weather and Low Light
- Where:
 - Two-way Stop Signs
 - Arterial corridors without bike facilities
 - Intersections
 - Designated Bikeways
- What & How
 - Doorings
 - Conflict Zones- areas where motor vehicles cross a cycling facility
 - Right turning vehicles across a bike facility
 - Left turning vehicles across a bike facility
 - Non Motor Vehicle Collisions (collisions with objects or due to road conditions)
 - Sidewalk Cycling

The study results were presented in May 2015 and the Cycling Safety Study's Action Plan addresses these twelve cycling safety issues, and includes engineering, education and enforcement countermeasures. The study recommended several actions to improve cycling safety. Table 2 in the Appendix presents in detail the action plan items and implementation progress of each item to date.

In tandem with the report on pedestrian safety an annual report on cycling safety will be provided.

For more information, please visit:

<http://former.vancouver.ca/ctyclerk/cclerk/20150512/documents/rr2presentation.pdf>

School Active Travel Planning Program

Since 2013, City of Vancouver has been working with VSB schools on improving active travel and safety for walking and cycling through the City's School Active Travel Planning Program (SATPP).

Each year four to six VSB schools are selected to participate in the SATPP. The program includes a detailed assessment of the selected schools by examining their unique transportation profiles and challenges, development of an Action Plan to work with the School Committees and Steering Committees to address the identified issues. The assessment and Action Plan is contracted to Hub for Active School Travel (HASTe).

The first 6 schools from the 2013 program are getting follow up studies completed to assess the effectiveness of the measures that were implemented. This will be compared with other schools nationally that are participating in a similar program. The results are expected to be available in early 2016. In addition there are 12 other schools from the 2014 and 2015 program which are in progress and will have before and after studies completed once all measures are implemented.

Cycling Education Pilot Program in Elementary Schools

The Healthy City Strategy Action Plan was adopted in July 2015 and included the Active Transportation Promotion and Enabling Plan (ATPEP) as one of the action items, which implements a Transportation 2040 policy to “Promote walking and cycling as fun, practical, and healthy transportation choices”. The ATPEP includes nine strategies (including seven pilot projects) to promote walking and cycling including a market study to identify motivations and barriers to active travel and education in elementary schools.

To increase cycling safety, the City commissioned a two-year pilot program starting in 2015 to teach cycling skills to elementary students and their parents with the support of the Vancouver School Board in up to 8 schools per year. This program includes in-class and on-bike instruction and can be extended a third year. The purpose behind this pilot is to monitor the success of this program to change travel behaviour and refine the program to meet elementary school needs so that it could be implemented by the Province at a future date.

In response to a request to expand the elementary school education program¹, Council has asked that the Active Transportation Policy Council and Children, Youth, and Families Advisory Committee review the request. Staff are developing a response to this request to show the relationship of cycling education in elementary schools in the context of the ATPEP strategies.

Methods to Support Project 529

The City’s primary way to support the 529 program is showcasing it through other active transportation engagement events and the SATPP. More information on the program is outlined below.

According to the VPD, on average nine bikes are stolen daily during the summer months. The majority of bikes will never be returned to their owners, as their serial numbers have not been reported to police, which makes them untraceable. Moreover, according to the City’s ATPEP bicycle theft was identified as a significant barrier to increasing cycling travel.

¹ A request was made at the December 2015 Council meeting regarding the budget to fund cycling education in one-third of Vancouver’s elementary schools and that the funding of \$85,000 or more be allocated from the contingency budget to support this initiative.

The VPD and the City of Vancouver are partnering with 529 Garage and Mountain Equipment Co-op (MEC) on the "Log it, Lock it or Lose it Bike Registry". 529 Garage is a private company that operates an online bike registration system. This company is allowing VPD free access to their registry database to assist VPD in returning stolen bikes to their owners.

This engagement program is introducing the 529 Garage bicycle registration program to the public through a series of communications/outreach initiatives and public events in partnership with City departments (Sustainability, Active Transportation) and external partners.

At the SATPP stakeholder meeting recently held at the VSB, there was strong support for HUB's participation and promotion of the 529 Garage program and a desire to promote the program directly in the schools.

The VPD's goal is to have 10,000 bikes registered within three years. The VPD will release ongoing updates of bikes registered as part of other related media releases. Currently, there are 1,500 bikes registered less than a month after launching the 529 Program. A high priority for the VPD in early 2016 is to introduce the 529 program into schools.

For more information, please visit:

<http://vancouver.ca/news-calendar/free-bike-registry-with-project-529-garage-oct-30-2015.aspx>

Please contact Steve Brown, Manager of Traffic and Data Management at 604.873.7393 or steve.brown@vancouver.ca if you have any questions or require more information.



Jerry W. Dobrovlny, P. Eng., MBA
General Manager of Engineering Services

(T) 604.873.7331

(E) jerry.dobrovlny@vancouver.ca

Appendix A - Pedestrian Safety Study

Table 1- Pedestrian Safety Improvements Completed at Priority Locations

Year Completed	Improvement	Locations	% of Planned Improvements Complete
2010	Countdown Timers	Main & Hastings	1%
2011	Countdown Timers	9 Locations	20%
	30 km/h Zones	Main & Hastings Carrall & Hastings	
	Left Turn Changes	Knight & 57th	
	LED Lighting	Knight & 57th	
2012	Countdown Timers	Cambie & Broadway	23%
	LED Lighting	Renfrew & Hastings	
2013	Countdown Timers	10 Locations	67%
	LED Lighting	13 Locations	
	New Traffic Signal	Denman & Pendrell Thurlow & Comox	
	Larger Signal Heads	Burrard & Davie	
	Slower Walk Speeds	Fraser & Broadway Denman & Pendrell Nanaimo & Kingsway Knight & 49th	
2014	Countdown Timers	10 locations	94%
	LED Lighting	3 locations	
	New Traffic Signal	Victoria & 34th	
	Left Turn Phases	Joyce & Kingsway Joyce & Vanness Fraser & Kingsway Nanaimo & Hastings	
	Leading Pedestrian Interval	Burrard & Davie	
2015	Countdown Timers	2 locations	99%
	Left Turn Phases	Granville & 70 th	
2016 (expected)	Left Turn Phases	Oak & 12th	100% (expected)

Appendix B - Cycling Safety Study

Table 2- Cycling Safety Improvements Progress

Recommendation	Actions	Progress (as of Nov. 2015)
Continued Engineering Practices	Use protected Bike Lanes particularly on busy commercial high streets	Proposed for Creekside (Seawall September 2015)
	Use bicycle signals with vehicle turn lanes	Comox & Denman signal upgrade
	Use pavement markings & green paint at lanes, driveways and intersections	Recent changes on York Bikeway
	Improve visibility at intersections, lanes, and driveways	Recent changes on Yukon Bikeway
	Continue Spot Improvement Program	Numerous improvements built and to be built. Examples include removing problem traffic circles and extending medians downtown
	Create separation for people walking and people biking	Proposed for the South False Creek Seawall project (Burrard Bridge to Cambie Bridge) and underway for the Southeast False Creek Seawall
	Design for slow cycling on Seawall and other paths	Proposed for the South False Creek Seawall project and English Bay
Expanded Engineering Practices	Explore more Protected Intersections (e.g. Burrard & Cornwall)	Council approved for Burrard & Pacific
	Provide sufficient & consistent width on busy local street bikeways (revisit parking regulations)	
	Provide on-street bike facilities where sidewalk cycling is prevalent	Recommended for Creekside Drive
Corridor Projects	10th Avenue - Trafalgar to Victoria	Consultation and conceptual design underway
	Commercial Drive - 1st to 12 th (Grandview Plan)	To follow and be coordinated with the Grandview Woodlands Plan
	Cypress Street - Cornwall to 16 th (construction coordination)	Conceptual design underway, construction in 2016 will be coordinated with Burrard Street sewer work.
Corridor Studies	Burrard Street - north of Pacific	Pacific to Drake/Burnaby will be part of Burrard Bridge project
	Main Street - north of 33rd	
	Broadway - west of Commercial	To be part of Broadway subway planning
	Clark Drive	To follow the Grandview Woodlands Plan
Intersection Projects	Burrard & Pacific	Design nearing completion, construction to begin in 2016.
	Main & 2nd	pending
	Burrard & Davie	pending

