Achieving a Major Bike Mode Shift in Vancouver

By Dale Bracewell, Manager Transportation Planning

@Dale_Bracewell | #NACTO2016 | September 27th, 2016
Transportation 2040
Plan as adopted by Vancouver City Council on October 31, 2012
ECONOMY
Support a thriving economy while increasing affordability

PEOPLE
Healthy citizens in a safe, accessible, and vibrant city

ENVIRONMENT
City that enhances its natural environment for its people and the planet
• Mobility
• Health
• Safety
• Accessibility
• Affordability
• Public Life
• Resiliency
40% of all trips on foot, bike, or transit

- Motor Vehicle
- Transit
- Walk
- Bike

For all trips originating in the City of Vancouver. 2008 data source: TransLink Trip Diary Survey. Trips by commercial drivers (couriers, taxis, trucks, and bus drivers) not included.
Transportation 2040

PLAN TARGETS

For all trips originating in the City of Vancouver.
2008 data source: TransLink Trip Diary Survey. Trips by commercial drivers (couriers, taxis, trucks, and bus drivers) not included.
Transportation 2040

PLAN TARGETS

- 2008: 40% of all trips on foot, bike, or transit
- 2020: At least half of all trips on foot, bike, or transit
- 2040: At least two-thirds of all trips on foot, bike, or transit

For all trips originating in the City of Vancouver.
2008 data source: TransLink Trip Diary Survey. Trips by commercial drivers (couriers, taxis, trucks, and bus drivers) not included.
Sustainable Mode Trend Analysis

% of People Walking, Cycling, and Taking Transit

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>40%</td>
<td>44%</td>
<td></td>
<td></td>
<td></td>
<td>48%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Cycling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking Transit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: TransLink Trip Diary  Source: City of Vancouver Panel Survey
Zero Fatality Safety Target
IMPLEMENTATION PRINCIPLES

• Invest wisely
• Think big picture
• Be opportunistic
• Innovate
• Monitor, learn, adapt
• Work together
CYCLING
make cycling safe, convenient, comfortable & fun for people of all ages and abilities
Cycling Directions

- Build routes that are safe, comfortable & convenient
- Provide secure & abundant parking
- Improve integration with transit
- Promote cycling as an everyday option
- Focus on education & safety
Build Safe, Convenient & Comfortable Routes
Provide secure & abundant parking
Improve integration with transit
Promote cycling as an everyday option.
Educate All Road Users, Including in Schools
DESIGNING FOR ALL AGES & ABILITIES

Reduce car speeds & volumes

Physically separate users
What is AAA Cycling?

“Rules of Thumb” (in development)

Traffic volume ≤ 500 vehicles per day

Measured speed ≤ 30 km/h (20 mph)

If these can’t be achieved:
Separate from vehicles!
How do we select our Active Transportation corridors?
Prioritize

- Gaps in the network
- Areas with high existing or potential ridership
- Priority destinations, e.g. schools, community centres, high streets, transit stations
- High collision locations

Other Factors

- topography
- route directness
- impacts to transit, traffic
- impacts to loading, services, local businesses
Exercise 1, All Groups
Exercise 2, All Groups

Most Recurring:
- Water (5)
- Alexander (5)
- Powell (4) + Off-Powell (1)
- Commercial Drive (5)
- Kingsway (4)
- Main (4)
- Granville Bridge + (4)
- Smithe / Nelson (3)
- Charles / Malkin (3)
- 10th Ave upgrades (3)
- Beatty (2)
- 14th / 16th (2)
- Expo (2)
- Robson (2)
T2040 Action C.1.2.2

Develop, regularly update & implement short-term network strategies to address gaps & deficiencies in the network.

Cycling Route Priorities

- Separated Bike Lanes and Seawall
- Potential 2013 AAA Route
- Potential 2014 AAA Route
- Potential 2015-17 AAA Route
- Potential AAA Spot Improvements

The ‘all ages and abilities’ (AAA) network consists of significantly traffic calmed local street bikeways and separated bicycle lanes.

June 2013
5-Year Cycling Network
Additions & Upgrades 2016-2020

Planned New Route
Planned Upgrade

Detailed alignment and timing subject to change.

The aspiration for new routes and route upgrades is All Ages & Abilities (AAA). However, this may not always be achievable in the near term.

Upgrades can range from a series of small spot improvements to more significant changes.

Some projects fall on land outside City jurisdiction (e.g. Port, Park Board) and are subject to outside approval.

Not shown: minor additions and improvements through redevelopment and road work.

---

# New Route

1. Park Lane*
2. Bute
3. Burnaby-Drake
4. Smithe-Nelson
5. Cambie Street
6. West Waterfront Road**
7. Water - Alexander - Powell (Portside Greenway)
8. Granville Bridge
9. Gore
10. Hudson
11. Kent
12. Commercial Drive

# Upgrade

A. Stanley Park Causeway*
B. Burrard-Pacific + connections
C. Richards
D. Beatty
E. Expo Boulevard
F. Cambie Bridge
G. Blanca
H. Highbury
I. SW Marine Drive
J. Cypress
K. South False Creek Seawall
L. 7th Avenue - 5th Avenue (Off-Broadway)
M. 10th Avenue
N. Ontario
O. Adanac
P. Great Northern Way - 1st Ave (Central Valley Greenway)
Q. BC Parkway

* Park Board jurisdiction. ** Port Authority jurisdiction. Number sequencing does not imply priority.

---

November 2015
Walking + Cycling in Vancouver
2015 Report Card
How Vancouverites are Getting Around

Vancouverites are making more of their trips on foot and by bike every year.

Mode Share for All Trips

<table>
<thead>
<tr>
<th>Year</th>
<th>Auto</th>
<th>Transit</th>
<th>Walk</th>
<th>Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>53%</td>
<td>18%</td>
<td>26%</td>
<td>4%</td>
</tr>
<tr>
<td>2014</td>
<td>51%</td>
<td>18%</td>
<td>26%</td>
<td>5%</td>
</tr>
<tr>
<td>2015</td>
<td>50%</td>
<td>16%</td>
<td>27%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: 2015 Transportation Panel Survey
Trip Made by Foot and Bike

Ten per cent of Vancouverites cycle to work and 24 per cent walk to work.

Mode Share by Destination

- To Work
  - 10%
  - 24%
  - 41%
  - 24%

Auto Driver or Passenger | Transit | Walking | Cycling

Source: 2015 Transportation Panel Survey
How Vancouverites are Getting Around

Cycling Mode Share by Home Area

- 17% in a specific area
- 8% in a specific area
- 7% in a specific area
- 9% in a specific area
- 4% in a specific area
- 4% in a specific area
- 2% in a specific area
- 3% in a specific area
How Vancouverites are Getting Around

Cycling Volumes

Burrard Bridge
Daily mid-week bike trips*

Seawall at Science World
Daily mid-week bike trips*

Dunsmuir Viaduct
Daily mid-week bike trips*

Union Street at Hawks Avenue
Daily mid-week bike trips*

Source: City of Vancouver bike counter data.
*Average of Tuesdays, Wednesdays and Thursdays, except statutory holidays

Winter (January/February)  Summer (July/August)
How Vancouverites are Getting Around

Who is Walking and Cycling in Vancouver?

The share of women cycling on Hornby Street grew 40% after a protected bike lane was constructed in 2011.
Building out our All Ages & Abilities Cycling Network
Neighbourhood Bikeways & Greenways
Active Transportation Spot Improvements

Completed and Under Construction
September 2015

- Cycling Spot Improvements Completed
  - 28

- New Pedestrian & Bike Signals
  - 2

- New Active & Safe Routes to School
  - 2

- Cycling Spot Improvements Under Construction
  - 2'

- Upcoming Pedestrian & Bike Signals
  - 2'

- Upcoming Active & Safe Routes to School
  - 2'
Redevelopment - New Sidewalks & Cycle Tracks
Recent Seawall Improvements

Plaza of Nations

Science World

Coal Harbour

English Bay
Local Street Bikeway Maintenance

Before Repaving

After Repaving
Protected Bikeways including Protected Intersections
Vancouver’s Breathtaking Network of Safe, Protected Bike Lanes by Clarence Eckerson Jr. on September 20, 2016 | 4895 Plays

In 2012, the Vancouver City Council set an ambitious goal to reach a bicycle mode share of 7 percent of all trips by 2020. The city proceeded to hit the mark in 2015, five years ahead of schedule! When you… READ THE FULL POST
Meet The Cities: Vancouver Protected Intersections

Burrard Bridge

South End (built 2014)

North End: Before (2015)
IMPROVING INFRASTRUCTURE, INCREASING RIDERSHIP

Bike volumes across the Burrard Bridge jumped 30% to over 1.3 million annually in the first year after the Burrard-Cornwall improvements.
1. Beatty*
2. Cambie St.
3. Richards*
4. Smithe | Nelson
5. Helmcken Access Improvement
6. Cambie Bridge*
Downtown Bike Lane Network Expansion

- Detailed Stakeholder Engagement (March-April)
- Public Open House (March)
- Design Completion (April)
- Installation (April-June)
Beatty Street – Before
Beatty Street – After
Beatty Street – Before
Beatty Street – After
Cambie Street – Before
Cambie Street – After
Cambie Street – Before
Cambie Street – After
Nelson Street – Before
Nelson Street – After
Nelson Street – Before
Nelson Street – After
Smithe Street – Before
Smithe Street – After
Smithe Street – Before
Smithe Street – After
Walkability + Bikeability

300km
Vancouver’s total bike network

24%
designed for all-ages-and-abilities
Walkability + Bikeability

Longest Greenway: Seaside Greenway

54%

would like to travel by bicycle more often.

2015 Transportation Panel Survey
Walkability + Bikeability

People of all ages and abilities can now walk and cycle along the Greenway from Stanley Park to Hornby Street through the West End.

Greenway Health Benefits

- Time spent sitting and being sedentary: \(-8\%\)
- Days of poor physical and mental health: \(-9.8\%\)
- Days engaged in moderate physical activity per week: \(16.1\%\)
Cycling Safety

A large part of feeling safe while cycling is being protected from higher-speed motor vehicle traffic, whether through physical barriers, or traffic-calming measures designed to slow vehicle speeds.

Between 2008 and 2011:
- Cycling Trips: +41%
- Collision Rates: -17%
Education and Promotion

Educating, promoting, and celebrating are important to build a culture in Vancouver that supports and encourages active transportation.

Our aim is for Vancouverites to see walking and cycling as convenient, fun, and normal ways to get around every day.
Big Moves in Vancouver

*(in addition to building our AAA Network)*
Public Bike Share

BIKES WE SHARE

150 STATIONS = CONVENIENCE!
With 150 stations in and around downtown, a bike share station will be conveniently located near your destination!

WE WANT YOUR INPUT!
Residents will have an opportunity to suggest station locations on the system website (coming soon). Stay tuned for details!
Dunsmuir Connection

- An elevated park for pedestrians and people cycling
- Sufficient width for safety and capacity
- Connections to new park & main link to Downtown
The Arbutus Greenway