False Creek Pedestrian & Cycling Crossings Study

FALSE CREEK PEDESTRIAN & CYCLING CROSSINGS STUDY

www.city.vancouver.bc.ca/falsecreek

WELCOME

The City of Vancouver is committed to providing for the mobility needs of pedestrians and cyclists so that non-motorized, or human-powered, travel can become a larger component of total travel in the City. The City of Vancouver's Transportation Plan (approved in 1997) includes many initiatives to support an increase in walking and cycling.

During the morning rush hour, walking and cycling (in combination) currently represent 11% of trips to Downtown and 11% of trips to the Central Broadway area. One of the City's future targets is to increase the number of walking and cycling trips to 14% of trips to Downtown and 12% of trips to the Central Broadway area. This translates into approximately 7,500 new pedestrians and cyclists travelling in these areas during morning rush hour.

Currently, pedestrians and cyclists are accommodated across False Creek via the following crossing facilities:

- Burrard Bridge – sidewalks designated for pedestrians and one-way cyclists along both sides (designated as an official ('Bikeway/Greenway');
- Granville Bridge – sidewalks for pedestrians only and wider curb lanes for cyclists along both sides;
- Cambie Bridge – a wider sidewalk along the east side for pedestrians and two-way cyclists, wider curb lanes for cyclists along both sides, plus a special ramp connection on the north side (designated as an official 'Bikeway/Greenway'); and
- Ferry System – private passenger ferry systems operating between both sides of False Creek.

While these facilities are functional, facilities for pedestrians and cyclists will need to be improved to achieve the City's transportation targets. Moreover, any new proposed facilities will need to be integrated with potential pedestrian and cycling routes identified in the City's future Downtown Transportation Plan, as well as other related transportation and land use plans.

In the past, various options were considered to improve pedestrian and cyclist travel across False Creek. These options are highlighted, along with new options, on the 'Old Ideas, New Ideas...and Your Ideas' presentation board.

"Walking is the most basic form of transportation."

PERCENTAGE OF WORK TRIPS MADE BY WALKING AND CYCLING

AMSTERDAM	35%
COPENHAGEN	32%
SINGAPORE	22%
HONG KONG	17%
PARIS	15%
CITY OF VANCOUVER	15%
VICTORIA	15%
OTTAWA	9%
GVRD	8%
NEW YORK	7%
MONTREAL	7%
CALGARY	7%
SYDNEY	6%
TORONTO	6%
LOS ANGELES	4%
DETROIT	2%

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GOALS AND OBJECTIVES

THE GOALS

The City of Vancouver has initiated a detailed study to analyze the need and potential means for improved pedestrian and cycling crossings across False Creek. In this study, 'pedestrian' and 'cycling' includes other modes of travel as well, such as in-line skating, skateboarding, wheelchairs, and scooters (both 'push' and 'electric').

This study includes examining the costs and benefits of potential crossing options and evaluating them against a set of criteria – such as facility usage, integration with the existing and future transportation system, efficiency of movement (e.g. access, continuity, travel time), user satisfaction and safety, community impacts and capital and operating costs, to name a few. This evaluation will be completed to determine the preferred option for improving pedestrian and bicycle travel across False Creek.

DEFINITIONS

BIKE PATH
A PATH SEGREGATED FROM MOTORIZED TRAFFIC FOR THE USE OF BIKES, SOMETIMES SHARED WITH PEDESTRIANS.

BIKE LANE
A PORTION OF STREET RESERVED FOR USE BY BIKES, USUALLY SEPARATED FROM GENERAL PURPOSE LANES BY A STRIPE OF PAINT AND SIGNAGE.

BIKE ROUTE
ANY COMBINATION OF SIGNED BIKE PATHS, BIKEWAYS, BIKE LANES, GREENWAYS, AND OTHER STREETS WHICH PROVIDES CYCLISTS WITH A SUGGESTED ROUTE ALTERNATIVE BETWEEN DESTINATIONS.

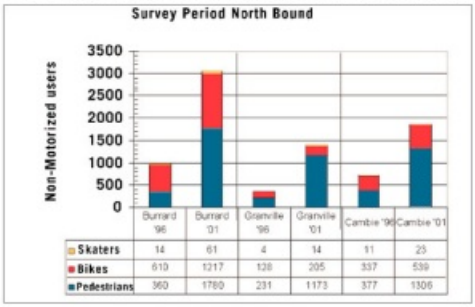
PEDESTRIAN PRIORITY AREA
SEGMENTS OF STREETS WHICH ARE GIVEN SPECIAL TREATMENT TO CREATE A PEDESTRIAN FRIENDLY ENVIRONMENT.

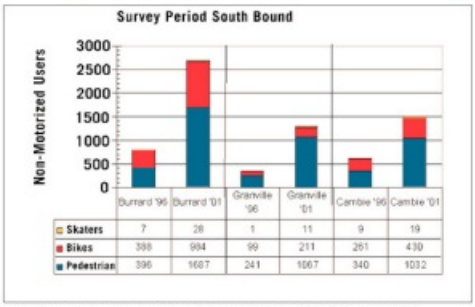
GREENWAY
A STREET CONNECTED IN A NETWORK THROUGHOUT THE CITY WHICH IS ENHANCED TO PROVIDE A PLEASANT ENVIRONMENT FOR PEDESTRIANS AND CYCLISTS.

THE OBJECTIVES

- To identify current problems and issues relating to pedestrian and cyclist crossings of False Creek;
- To determine future pedestrian and cyclist demands across False Creek;
- To identify and develop improvement options to address existing and future pedestrian /cyclist problems and demands;
- To evaluate improvement options with a recommendation for a preferred option; and
- To provide for an inclusive and participatory public consultation process to invite input from stakeholders and the general public throughout the study.

NON-MOTORIZED TRANSPORT ALONG FALSE CREEK BRIDGE





1996 Survey completed on May 30 from 7-9AM; 11AM-1PM; and 4-6PM.
2001 Survey completed during the same hours on April 3 (during transit strike)

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STUDY PROCESS AND SCHEDULE

ACTIVITIES	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.
Project Initiation								
Project Start-up	●							
Data Collection	●							
Site Review	●							
Existing Transportation System								
Background Information Review	●	●						
Pedestrian / Cyclist Demands		●						
Traffic & Safety Overview		●						
Stakeholder Group Meeting #1		●						
Stakeholder Group Working Paper #1		●						
Workshop / Open House #1 & Site Tours			●					
Summary Paper #1			●					
Improvement Options								
Option Pre-Screening			●					
Develop Improvement Alternatives			●	●				
Option Costing			●	●				
Evaluation of Options				●	●			
Stakeholder Group Working Paper #2				●				
Workshop / Open House #2				●				
Option Refinement					●			
City of Vancouver Council Presentation #1					●			
Construction Issues						●		
Stakeholder Group Working Paper #3						●		
Final Report								
Open House #3							●	
Final Stakeholder Group Meeting							●	
Final Report							●	
City of Vancouver Council Presentation #2								●

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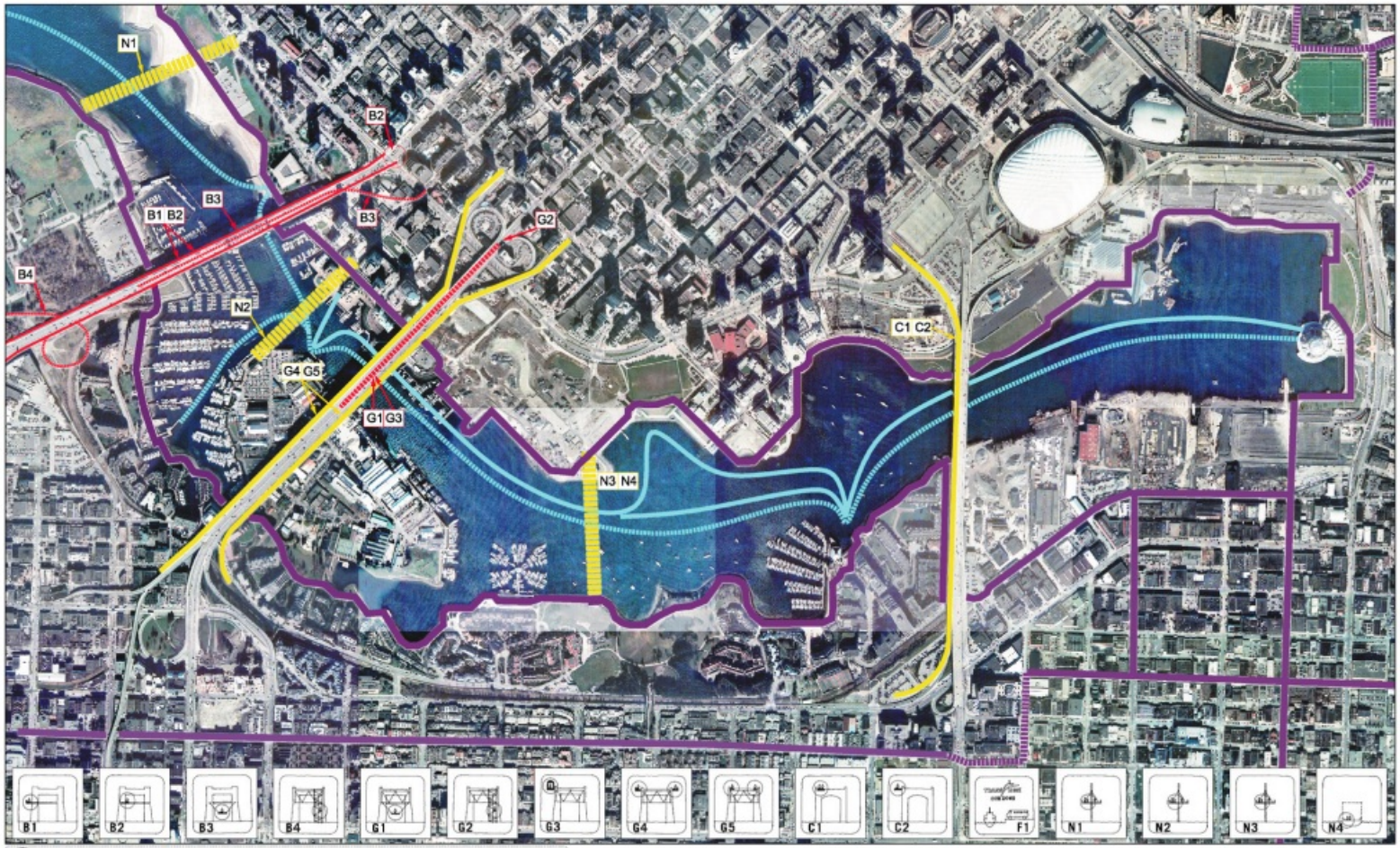
Old Ideas... New Ideas... and Your Ideas



OLD IDEAS
NEW IDEAS
FALSE CREEK FERRY AND AQUABUS ROUTE
BIKEWAY / GREENWAY (INCLUDES BURRARD AND CAMBIE BRIDGE)

How We Listen...

fig 1. Notice we are doing most of the talking.

fig 2. Shut mouth.

fig 3. Open seldom-used holes in side of head.

Your Ideas...

Burrard Bridge:

- B1: Outward sidewalk extensions on both sides of bridge, with north end indirect connector to Hornby Street.
- B2: One lane reduction with inward sidewalk widening, plus a north end modified conventional intersection.
- B3: Low level pedestrian/cyclist crossing beneath the bridge (Snauqway Proposal).
- B4: Cycling ramp at the south end of bridge.

Granville Bridge:

- G1: Supplementary pedestrian/cyclist crossing suspended beneath the bridge connecting at Granville Island.
- G2: Stairway connection to Pacific Street.
- G3: Gondola system suspended from the existing bridge.
- G4: Outward sidewalk extensions on both sides of bridge to allow shared pedestrian/cyclist facilities.
- G5: Reduce lane widths to allow separate marked cyclist facilities along roadway.

Cambie Bridge:

- C1: Allow cyclist usage of existing west side sidewalk.
- C2: Outward extension of existing west side sidewalk to allow shared pedestrian/cyclist facilities.

Ferry Systems:

- F1: Expand ferry system to allow for increased bicycle transport and possible fare integration with transit.

New Crossings:

- N1: Low level pedestrian/cyclist crossing located west of Burrard Street Bridge.
- N2: Low level pedestrian/cyclist crossing located between the Burrard and Granville Street Bridges.
- N3: Low level pedestrian/cyclist crossing located between the Granville and Cambie Street Bridges.
- N4: Floating pedestrian/cyclist crossing located between the Granville and Cambie Street Bridges.

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KEY ISSUES

During the course of this study, several key issues affecting the development and/or assessment of options for improved pedestrian and cyclist crossings of False Creek will need to be carefully considered. These issues are described as either 'general' or 'operational' in nature.

ISSUES – GENERAL:

- Specific Pedestrian and Cyclist Requirements – e.g. continuity without excessive diversion, direct links to other transportation modes, and easy-to-use routes to desirable destinations;
- User Safety – e.g. adequate width on the road or on a shared facility, minimize 'conflicts' between all users (e.g. pedestrians, cyclists, in-line skaters, scooters, wheelchairs, skateboards, vehicles), and personal security and lighting on dedicated facilities;
- Integration & Compatibility with the existing and future transportation system and land use plans – e.g. the Kitsilano Traffic, Cycling, and Parking Plan; the Downtown Transportation Plan; the Downtown Street Car; and developments along False Creek (e.g. Southeast False Creek Sustainable Community);
- Aesthetics and Views – e.g. respecting the views of and from the crossings during regular usage and special events;
- Heritage – e.g. respecting the City's heritage designation of the Burrard Bridge;
- Socio-community Impacts – e.g. impacts to properties and businesses, and opportunities for community economic development and neighbourhood enhancement;
- Vehicular Capacity – e.g. impacts to vehicular capacities on bridges and bridge approaches;
- Navigational Clearance – e.g. navigational clearance requirements of False Creek, both horizontal and vertical, during construction and operation;
- Existing Ferry Systems – e.g. impacts to ferry patronage;
- Construction Implications – e.g. the structural compatibility of any extensions to existing bridge systems, and disruptions during construction to all crossing users; and
- Environmental Impacts – e.g. air/water quality and noise impacts during construction and operation.

GENERAL PRINCIPLES FOR PEDESTRIAN AND BICYCLE PLANNING

1. EVERY STREET IS A PEDESTRIAN AND BICYCLE STREET.
2. PEDESTRIANS AND BICYCLES ARE PART OF THE TRANSPORTATION NETWORK.
3. THE PEDESTRIAN AND BICYCLE ENVIRONMENT SHOULD BE SAFE.
4. THE PEDESTRIAN AND BICYCLE NETWORK SHOULD BE ACCESSIBLE TO ALL.
5. THE PEDESTRIAN AND BICYCLE NETWORK SHOULD CONNECT TO PLACES PEOPLE WANT TO GO.
6. THE PEDESTRIAN AND BICYCLE ENVIRONMENT SHOULD BE EASY TO USE.
7. THE PEDESTRIAN AND BICYCLE ENVIRONMENT SHOULD PROVIDE GOOD PUBLIC PLACES.
8. THE PEDESTRIAN AND BICYCLE ENVIRONMENT SHOULD BE USED FOR MANY THINGS.
9. THE PEDESTRIAN AND BICYCLE ENVIRONMENT SHOULD BE ECONOMICAL.

New Issues from Workshop #1

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KEY ISSUES

ISSUES - OPERATIONAL

Burrard Bridge

- Width of facility not sufficient to satisfy demands by pedestrians / cyclists, resulting in conflicts along this shared facility.
- High northbound right turn vehicular movement at the Pacific Street / Burrard Street intersection conflicts with pedestrians/ cyclists crossing northbound on Burrard Street.
- High crash rate for southbound cyclists accessing west side of bridge

Granville Bridge

- No dedicated cycling lane. Cyclists currently use the curb-side lanes along the bridge, which experience high vehicle volumes and speed. Some cyclists use the sidewalk, causing conflicts with pedestrians, as the sidewalk is too narrow for multiple users.
- Pedestrians / cyclists must cross the heavily trafficked Seymour Street / Pacific Street off-ramp and Howe Street on-ramp in order to maintain route continuity between Granville Street and the bridge.
- Circuitous pedestrian access between Pacific Street and the bridge (north side) and Granville Island and the bridge (south side), as no direct pedestrian stairway connection exists.

TRANSPORTATION FACTS:

- 14.5% OF CITY OF VANCOUVER RESIDENTS LIVE WITHIN 2.5 KILOMETRES OF WORK.
- WITHIN 2-3 KILOMETRES, WALKING IS CONSIDERED A COMPETITIVE MODE OF TRANSPORTATION, AS TRAVEL TIME IS APPROXIMATELY 30 MINUTES FOR THIS DISTANCE.

Cambie Bridge

- Difficult crossings of 2nd avenue exits for southbound cyclists using roadway.
- Difficult crossings of Pacific Boulevard exit for northbound cyclists using roadway.
- Circuitous access routing for cyclists from Nelson Street onto the shared pedestrian / cyclist facility along the east side of the bridge.

TRANSPORTATION FACTS:

- 40% OF CITY OF VANCOUVER RESIDENTS LIVE WITHIN 5 KILOMETRES OF WORK.
- WITHIN 5-8 KILOMETRES, CYCLING IS CONSIDERED A COMPETITIVE MODE OF TRANSPORTATION, AS TRAVEL TIME IS APPROXIMATELY 20-30 MINUTES FOR THIS DISTANCE.

Images from left to right: Burrard Bridge - northbound; Granville Bridge/ Seymour off-ramp - pedestrian crossing; Cambie Bridge Bikeway/ Greenway.

"City Council already places pedestrians as the first priority in transportation planning."
(City of Vancouver Transportation Plan, 1997)

New Issues from Workshop #1

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THE EVALUATION

In assessing the range of options to improve pedestrian and bicycle travel across False Creek, the Project Team has developed a series of 'criteria' that will be used in 'testing' each option against the project objectives. Given the diversity of criteria, some of these can be calculated while others cannot. However, both quantitative and qualitative criteria will be assessed and summarized to illustrate which options are preferable.

"Cycling adds an element of adventure and a sense of freedom that simply can't be duplicated."

CRITERIA	RATIONALE	
Facility Usage	• Trip purpose (ie. commute, recreation, other)	• User group (ie. pedestrian, cyclist, other)
Efficiency of Movement	• Accessibility • Travel time • Vehicular diversion	• Travel continuity • Barriers to movement
User Satisfaction & Safety	• User safety • Personal security	• User comfort • Quality of environment
Neighbourhood Effects	• Local access • Property impacts	• Visual intrusion
Aesthetics	• Views from bridges • Compatibility with existing bridges and surroundings	• Bridge appearance
Heritage	• Compliance with City's heritage designation	• Preservation of heritage features
Environment	• Impacts to air and water quality during construction • Terrain	• Noise
Navigation	• Marine clearance	• Traffic disruption
Cost	• Capital costs	• Operating costs
Tourism / Economic Development	• New business opportunities / tourist attractions	• Change in land values
Construction Implications	• Construction period • Future upgrade / changes	• Disruption to use • Structural compatibility
Ease of Maintenance	• Accessibility for maintenance	• Accessibility of pathways
Integration / Compatibility with Other Transportation Systems and Land Use Plans	• Linkages to other systems and future plans • Fare integration	• Minimize impacts to other systems





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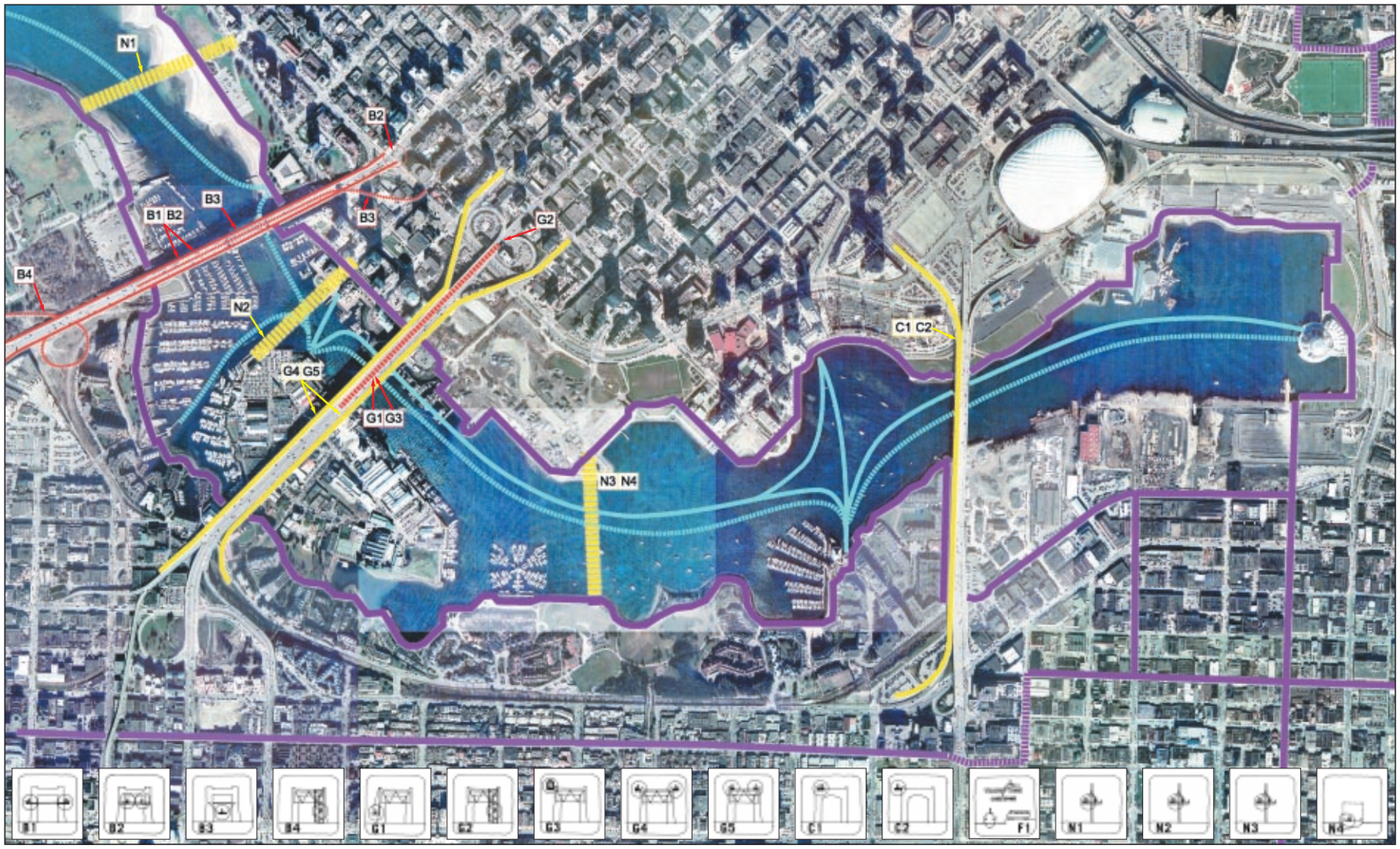
OLD IDEAS... NEW IDEAS... AND YOUR IDEAS



OLD IDEAS
NEW IDEAS
FALSE CREEK FERRY AND AQUABUS ROUTE
BIKEWAY/GREENWAY (INCLUDES BURRARD AND CAMBIE BRIDGE)

BURRARD BRIDGE:

B1: Outward sidewalk extensions on both sides of bridge, with north end indirect connector to Hornby Street.

B2: One lane reduction with inward sidewalk widening, plus a north end modified conventional intersection.

B3: Low level pedestrian/cyclist crossing beneath the bridge (Snauqway Proposal).

B4: Cycling ramp at the south end of bridge.

GRANVILLE BRIDGE:

G1: Supplementary pedestrian/cyclist crossing suspended beneath the bridge connecting at Granville Island.

G2: Stairway connection to Pacific Street.

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G4: Outward sidewalk extensions on both sides of bridge to allow shared pedestrian/cyclist facilities.

G5: Reduce lane widths to allow separate marked cyclist facilities along roadway.

CAMBIE BRIDGE:

C1: Allow cyclist usage of existing west side sidewalk.

C2: Outward extension of existing west side sidewalk to allow shared pedestrian/cyclist facilities.

FERRY SYSTEMS:

F1: Expand ferry system, including new docking facilities, to allow for increased bicycle transport and possible fare integration with transit.

NEW CROSSINGS:

N1: Low level pedestrian/cyclist crossing located west of Burrard Street Bridge.

N2: Low level pedestrian/cyclist crossing located between the Burrard and Granville Street Bridges.

N3: Low level pedestrian/cyclist crossing located between the Granville and Cambie Street Bridges.

N4: Floating pedestrian/cyclist crossing located between the Granville and Cambie Street Bridges.

Your Ideas from Workshop/Open House #1

MAJOR IMPROVEMENTS	'TOOLBOX' OF LOCAL IMPROVEMENTS
Burrard Bridge • No new major improvements suggested	• Cycling flyover ramp above Pacific Boulevard.
Granville Bridge • Reduce number of lanes to allow separate marked cyclist facilities along roadway. • Build a wide walkway above the existing sidewalk including "rooms" for bike shop and café.	• Elevator/stairway connection to Granville Island. • Signalization of on/off ramp crosswalks. • Eliminate vehicular (loop ramp) access to/from Pacific Boulevard. • Intersection improvements at Hemlock Street/6th Avenue on-ramp access.
Cambie Bridge • Adjust vehicular lane widths to provide southbound bike lane (on-street).	• Stairway/ramp & elevator connections to the seawall at both ends of the bridge. • Remove vehicular off-ramp to Pacific Boulevard at north end of bridge so that pedestrians/cyclists going downtown do not have to loop around and under ramp. • Intersection improvements at 2nd Avenue on-ramp access. • Stairway connection on northeast side to Seawall at Coupers Park (to match southeast side). • Ramp connection on the southeast side to southeast False Creek (to match northeast side).
New Crossings • High level pedestrian/cyclist crossing located west of Burrard Street Bridge. • Low level pedestrian/cyclist crossing located between Granville Island and Hornby Street. • Low level pedestrian/cyclist crossing connecting between David Lam and Charleson Park. • High level pedestrian/cyclist crossing connecting between David lam and Charleson Park. • Low level pedestrian/cyclist crossing connecting between Marinaside Crescent and Stamps Landing.	• No new minor improvements suggested

New ideas not identified or sketched on map

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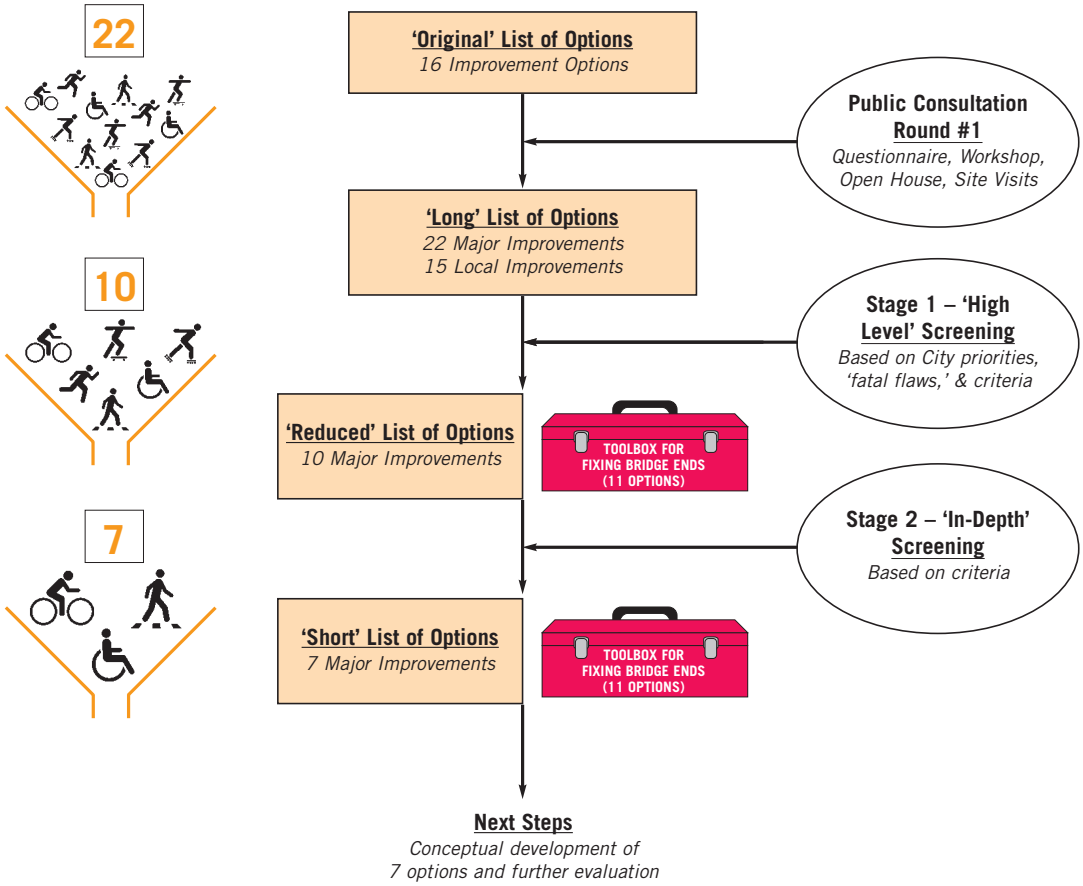
EVALUATION–PART I: THE PROCESS

The City of Vancouver and the Consultant Team applied a two-stage evaluation process to screen the 37 improvement options that were identified from the first round of public consultation. One of the first steps, however, was to re-organize the numerous options into 'Major Improvements' – which provide additional space, or capacity, for pedestrians and cyclists on the bridges – and 'Local Improvements' – which make getting on and off the bridges easier, more efficient, and more safe. Given the nature of the local improvements, it was decided to organize them into a 'Toolbox,' as many of these 'fixes' are suitable for any of the options associated with the particular bridges.

The second stage of the evaluation focused only on major improvements, with the understanding that local improvements from the toolbox would be integrated with the final major improvement options to ensure that they are 'seamless,' safe, and convenient for pedestrians and cyclists.

Options not short-listed here will remain as potential improvement options that may be considered by the City at a future date.

The evaluation process is outlined below to explain *how we got to here...*



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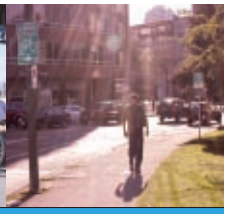

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EVALUATION–PART II: THE RESULTS

An evaluation matrix was developed after Stage 1 to take a closer look at the remaining 10 major improvement options. As part of developing this matrix, the evaluation criteria were re-organized from 13 to 6 key criteria without excluding any of the original measures.

The local improvement options that are now part of the 'toolbox' were not part of the 'official' evaluation where criteria were applied, though they remain important elements of a 'complete' solution. These toolbox options are linked with the 'Short-listed' options described in more detail on the next board.

OPTION	EVALUATION CRITERIA: USAGE	QUALITY OF TRIP	COST	TRAFFIC IMPACT	NEIGHBOURHOOD INTEGRATION	URBAN DESIGN / APPEARANCE	OVERALL
Burrard 1: Outward Sidewalk Extension on Both Sides	○	◑	◑	○	◕	◕	◑
Burrard 2: Inward Sidewalk Widening on Both Sides (Reduce 1 Lane)	○	◔	○	◕	◔	◑	◔
Burrard 3: Low / Medium Level Beneath Bridge	◑	◑	◑	◑	◑	◑	◑
Granville 1: Suspended Beneath Bridge	◔	◔	◔	○	○	◔	◔
Granville 4: Outward Sidewalk Extension on Both Sides	◑	◑	◕	○	●	◕	◕
Granville 6: Reduce No. of Lanes(2) to Provide Separate Bike Lanes	◑	◑	○	◑	◔	◕	◑
Cambie 2: Outward Extension of West Sidewalk	○	◔	◔	○	◑	◕	◔
Cambie 4: Adjust Lane Widths to Provide for Southbound Bike Lane	◑	◑	○	◔	◔	◕	◑
New 2: Low Level Bridge between Burrard & Granville	◕	◑	◕	◑	◕	◕	◕
New 3: Low / Medium Level Bridge between Granville & Cambie	◑	◔	●	◑	◑	◕	◕

LEGEND

○ Good ◔ Good-Fair ◑ Fair ◕ Fair-Poor ● Poor The 'Short List'

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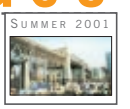

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These 'short-listed' options will now be developed in more detail to provide sufficient information for a more comprehensive evaluation. The next round of public consultation in September will make final recommendations on which improvement options best achieve the objectives of this study.

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Evaluation–Part II: The 'Short List'

–DRAFT–

Options	Toolbox: Potential Complementary Improvements	Preliminary/Work-In-Progress Characteristics
B1: Outward Sidewalk Extension: extend the sidewalks on both sides outward to create widened pedestrian/cyclist facilities.	• Cycling loop ramp at south end of bridge. • Redesign north end of bridge (incl. Pacific/Burrard intersection).	• Serves the existing high pedestrian/cyclist demands; • Maintains existing vehicular traffic capacity & navigational clearance; • Potential property impacts and shadowing effects in the northeast side; • A heritage-sensitive design will likely require extensions to come inside the heritage features, affecting pedestrian/cyclist traffic flows; • Potential for new pedestrian/cyclist space of approx. 1–2 m on both sides.
B2: Inward Sidewalk Widening: reduce one vehicular lane (likely northbound) along Burrard Bridge and extend the sidewalks on both sides inward to create wider pedestrian/cyclist facilities.	• Cycling loop ramp at south end of bridge. • Redesign north end of bridge (incl. Pacific/Burrard intersection).	• Serves the existing high pedestrian/cyclist demands; • Reduces existing vehicular traffic capacity; • Does not affect marine navigational clearance; • Minimal neighbourhood, heritage, and aesthetic impacts; • Relatively low cost option.
B3: Low/Medium Level Beneath Bridge: a separate low/medium level pedestrian/cyclist crossing beneath the Burrard Bridge through the existing openings of the concrete piers. This would be a 'live' bridge that could be adjusted to allow for the passage of marine vessels through the channel.		• Serves primarily recreational pedestrian/cyclist demands; • Potential personal security issues during night-time usage; • Inconvenience associated with frequent opening of bridge for marine vessel passage; • Potentially high operational costs; • Potential First Nations issues; • Potential impacts to the aesthetics and views of the existing bridge; • Maintains existing vehicular traffic capacity; • Potential for new pedestrian/cyclist space of approx. 6 m.
G1: Suspended Beneath Bridge: a medium/high level pedestrian/cyclist crossing suspended beneath the Granville Bridge (likely along the west side) connecting the seawall on the north end and Granville Island on the south end.	• Elevator/stairway connection to Granville Island.	• Serves primarily recreational pedestrian/cyclist demands; • Serves some existing & future commuting demands; • Maintains existing vehicular traffic capacity; • Likely would not affect marine navigational clearance; • Some potential impacts to the aesthetics and views of the existing bridge; • Most popular citizen suggestion from the 'City Plan' process; • Potential for new pedestrian/cyclist space of approx. 6 m.
G6: Reduce No. of Lanes (2) to Provide Separate Bike Lanes: reduce one vehicular lane in each direction along Granville Bridge by merging the Howe St. and Hemlock St. 2- lane on-ramps into single lanes on the bridge. The additional road space would then be used for separate marked bike lanes along the roadway.	• Stairway/elevator connection to Pacific Blvd. • Elevator/stairway connection to Granville Island. • Signalization of on/off-ramp crosswalks. • Intersection improvements at Hemlock/6th Ave. on-ramp access.	• Existing approach ramp crosswalks only slightly improved; • Reduces existing vehicular traffic capacity along the bridge (however, additional road-way capacity exists); • Does not affect marine navigational clearance; • Minimal neighbourhood and aesthetic/view impacts are expected; • Relatively low cost option.
C2: Outward Extension of West Sidewalk: outward extension of the existing west sidewalk along the Cambie Bridge (from the Nelson/Beatty intersection to 6th Ave westbound off-ramp) to allow for shared pedestrian/cyclist usage.	• Intersection improvements at 2nd Ave. on-ramp access. • Stairway connection on northeast side to Seawall at Coupers Park (to match southeast side). • Ramp connection on the southeast side to Southeast False Creek (to match northeast side). • Stairway/ramp &/or elevator connections to the seawall at both ends.	• Serves the future high pedestrian/cyclist demands along the bridge (i.e. associated with Northeast & Southeast False Creek developments); • Maintains existing vehicular traffic capacity and marine navigational clearance; • Minimal neighbourhood impacts are expected; • Some potential impacts to the aesthetics of the existing bridge; • Potential for new pedestrian/cyclist space of approx. 2–3 m.
C4: Adjust Lane Widths to Provide Southbound Bike Lane: adjust the vehicular lane widths along the existing Cambie Bridge southbound roadway to provide for a marked bike lane on the roadway (from the Nelson/Beatty intersection to 6th Ave. westbound off-ramp).	• Intersection improvements at 2nd Ave. on-ramp access. • Stairway connection on northeast side to Seawall at Coupers Park (to match southeast side). • Ramp connection on the southeast side to Southeast False Creek (to match northeast side). • Stairway/ramp &/or elevator connections to the seawall at both ends.	• Serves the future high pedestrian/cyclist demands along the bridge (i.e. associated with Northeast & Southeast False Creek developments); • Relatively low cost option; • Maintains existing vehicular traffic capacity and marine navigational clearance; • Minimal neighbourhood and aesthetic/view impacts are expected. –DRAFT–

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