



## ADMINISTRATIVE REPORT

Report Date: July 13, 2015  
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Meeting Date: July 22, 2015

TO: Standing Committee on Planning, Transportation and Environment  
FROM: General Manager of Engineering Services  
SUBJECT: Burrard Bridge Upgrades and North Intersection Improvements

### *RECOMMENDATION*

- A. THAT Council approve a \$35 million package of modifications to the Burrard Bridge and nearby streets as generally outlined in this report, namely:
- i. Structural modifications to the bridge, including:
    - 1. Concrete railing replacement,
    - 2. Roadway lighting electrical replacement,
    - 3. Sidewalk overlay,
    - 4. Concrete repairs (soffits),
    - 5. Access improvements for marine spans,
    - 6. East side duct bank repair, and
    - 7. Means prevention fencing and crisis phone installation;
  - ii. Restoration of walking to the east sidewalk of the Burrard Bridge by reallocating a northbound travel lane;
  - iii. Replacement of existing concrete barriers with architecturally-enhanced concrete barriers;
  - iv. Widening the northern bridge approach to generally maintain motor vehicle capacity; and
  - v. Safety improvements to the Burrard-Pacific intersection and associated active transportation connections.

B. THAT Council approve a Multi-Year Capital project budget of up to \$35 million for this work, with the funding source to be as follows:

- Current approved Multi Year Capital Project Budget for Burrard Bridge Rehabilitation and Upgrades \$30 million;
- CAC from 1262-1290 Burrard Street and 1229-1281 Hornby Street Rezoning \$4 million;
- City Wide DCL allocated to Transportation \$1 million

FURTHER THAT Council approve a funding source change for the current approved \$30 million Multi Year Capital Project Budget for Burrard Bridge Rehabilitation and Upgrades:

- Reduce borrowing authority by \$6 million and replace with City Wide DCL allocated to Transportation to reflect an increase in the growth-related component of the project.

### ***REPORT SUMMARY***

This report proposes a series of modifications to the Burrard Bridge and nearby streets. The changes include rehabilitating and upgrading aging bridge elements (including railings, electrical systems, sidewalks, and other important repairs), installing means prevention (suicide prevention) fencing, reconstructing the Burrard-Pacific intersection to improve safety, widening the north bridge approach, replacing existing concrete barriers with architecturally-enhanced concrete barriers, and converting a northbound motor vehicle lane to a protected bike lane to allow the return of pedestrians to the east sidewalk.

The bridge construction is expected to take 14 to 18 months to complete from commencement of construction. To reduce future construction-related disruptions to the corridor, several nearby water, sewer, and streets asset renewal projects are planned for the same timeframe.

There was one substantial change made to the proposal due to feedback from the public and stakeholders. Based on feedback from Vancouver Coastal Health, means prevention fencing and crisis phones have been added to the proposal. Staff have also made, or are in the process of investigating, several other changes to address issues, including: provision of a bike box and associated connections for people cycling eastbound through the Burrard-Pacific intersection; re-evaluating the potential lane closure between Howe and Hornby, south of Pacific; ensuring that pedestrian lighting which was removed from the bridge in many years ago can be reinstated on the bridge; and addressing accessibility concerns on the north bridge approach.

### ***COUNCIL AUTHORITY/PREVIOUS DECISIONS***

On October 31, 2012 Council adopted the Transportation 2040 Plan, which includes a zero fatality goal and identifies active transportation on the False Creek Bridges as an area of focus.

## ***CITY MANAGER'S/GENERAL MANAGER'S COMMENTS***

The General Manager of Engineering Services RECOMMENDS approval of the recommendations of this report.

## ***REPORT***

### ***Background/Context***

Burrard Bridge opened in 1932. Although ongoing maintenance has occurred throughout its lifespan, it requires rehabilitation, including:

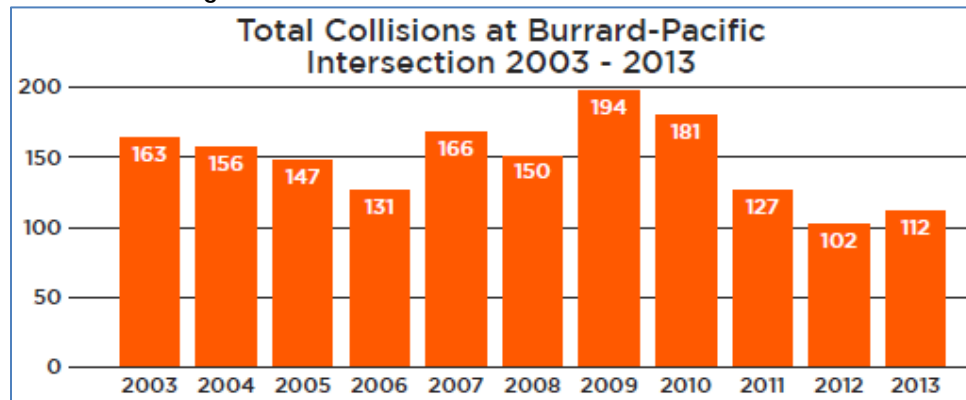
1. Concrete handrail replacement,
2. Roadway lighting electrical replacement,
3. Sidewalk overlay,
4. Concrete repairs (soffits),
5. Access improvements for marine spans, and
6. East side duct bank repair.

Prior to 2009, people walking and cycling shared the sidewalks on both sides of the bridge. As the number of people crossing the bridge using active transportation grew, the shared sidewalk increasingly became a safety hazard for pedestrians and cyclists. Safety was a particular issue for people cycling, as they were directed to ride in a narrow area adjacent to motor vehicle traffic and a minor error (or conflict with a pedestrian) could cause them to fall off the sidewalk onto the roadway. In 2009, the City reallocated a southbound travel lane from general purpose traffic and prohibited pedestrians from using the east sidewalk in order to create a protected bicycle lane in each direction. Since then, walking and cycling volumes have increased significantly with cycling growing by over 30%.

The Transportation 2040 Plan, adopted by Council in 2012, includes a zero transportation-related fatality goal and identifies the False Creek Bridges as an area of focus for active transportation improvements to address gaps in the pedestrian and cycling networks. Burrard Bridge is one of the busiest active transportation corridors in the city, with 10,000 walking and cycling trips on a busy summer day. It also carries approximately 55,000 motor vehicles, 13,000 transit passengers, and 500 trucks on a typical day.

According to ICBC, over the last 5 years, the Burrard and Pacific intersection has been the second-highest collision location in the City of Vancouver, with an average of over 140 collisions per year (figure 1). There has been significant improvement in the last 3 years, reducing it to 4<sup>th</sup> place in terms of collisions across the city, however, further improvement is dependent on a redesign of the intersection, particularly in view of the increasing cycling traffic over the bridge. The most frequent collision types include: 1) rear-end collisions in the right-turn channel onto the bridge and 2) collisions between vehicles merging onto the bridge and southbound vehicles.

Figure 1: Collision Statistics at Burrard-Pacific



Bridges are also an unfortunate opportunity for self-harm by those struggling with mental health issues. According to the BC Coroner's Office, in a typical year one person dies by jumping from Burrard Bridge. Table 1 below shows suicide (fatality) statistics for Burrard Inlet and False Creek bridges between 2006 and 2011.

**Table 1: Burrard Inlet and False Creek Bridge Suicide Statistics\***

Bridge	Suicides per year
Lions Gate	4.3
Granville	2.5
Burrard	0.8
2 <sup>nd</sup> Narrows	0.8
Cambie	0.3

\*BC Coroner's office 2006-2011

Table 2 shows average yearly logged calls labelled as potential suicide attempts from emergency services from 2006 to 2011. While not comprehensive, it represents a comparative source of data on potential suicide attempts.

**Table 2: Police Calls Logged as Potential Suicides on Burrard Inlet/False Creek Bridges\*\***

Bridge	Calls logged as potential suicide attempts per year
Lions Gate	19
Granville	20
Burrard	17
2 <sup>nd</sup> Narrows	No data
Cambie	8

\*\*Vancouver Police Department Records 2006-2011

The Ironworkers Memorial (Second Narrows) Bridge has a similar number of suicides as Burrard. The province is in the process of completing a project that includes means prevention fencing. Plans for the Burrard Bridge now include the placement of appropriate fencing.

### *Strategic Analysis*

#### Structural Rehabilitation

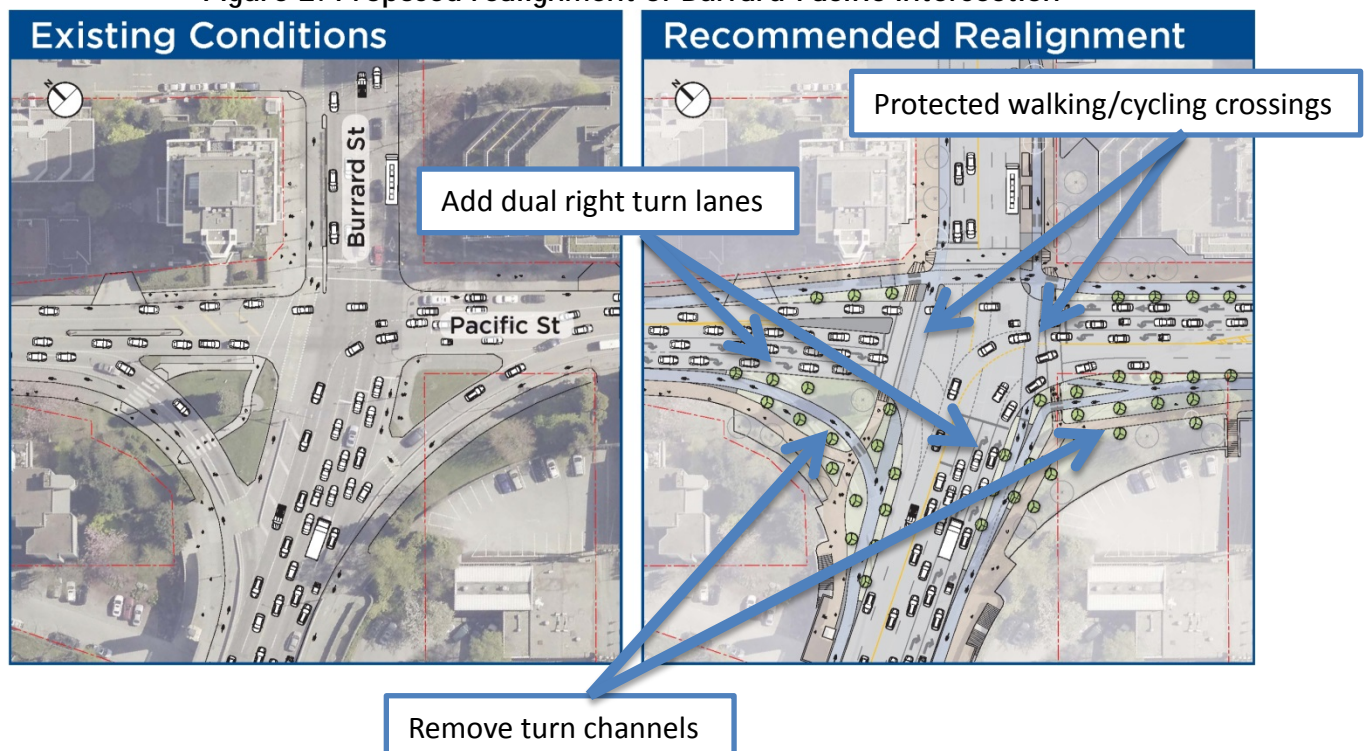
The rehabilitation work on the Burrard Bridge provides an opportunity to coordinate safety improvements both at the north end of the bridge and on the bridge (means prevention barriers), reinstate walking on the east sidewalk by converting a travel lane to a bicycle lane, and make active transportation network improvements at the north end of the bridge (similar to the improvements recently completed at the south end).

The rehabilitation is expected to take between 14 and 18 months, during which time road modification and utility work can also be undertaken to minimize overall long-term impacts on the public.

#### Safety Improvements

The most significant safety improvements would be achieved by normalizing the Burrard/Pacific intersection, similar to the changes to the Burrard/Cornwall intersection in 2014 (see figure 2). With the exception of a low-volume westbound to northbound right turn, all movements would be signalized to eliminate conflict between vehicles and people walking and cycling. It is anticipated that this would significantly reduce collisions of all types.

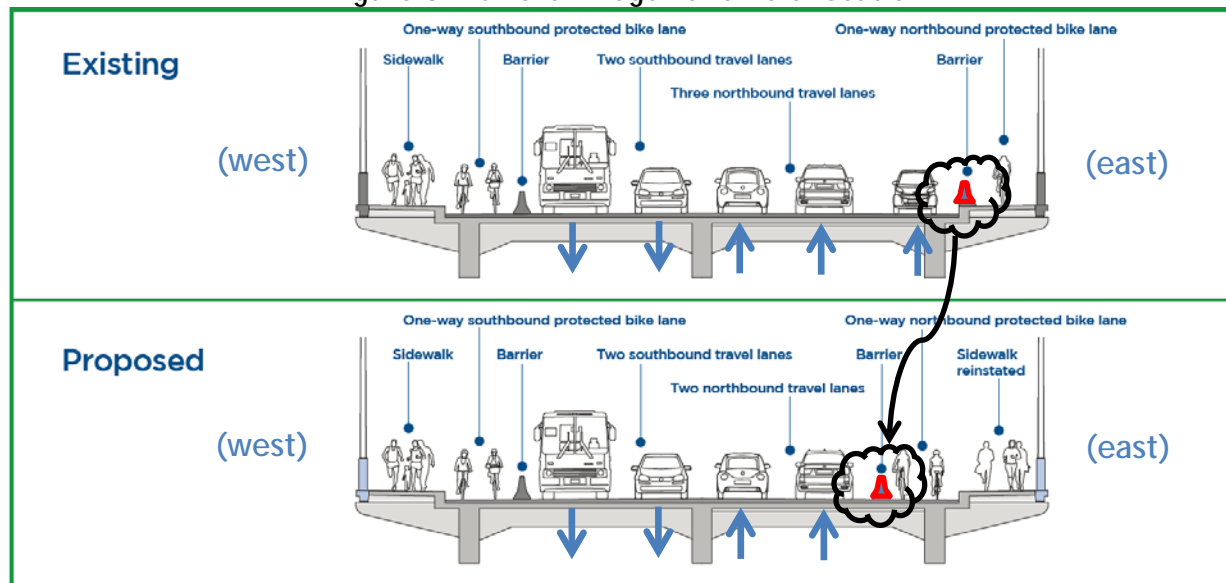
Figure 2: Proposed realignment of Burrard-Pacific Intersection



### Returning Pedestrians to East Sidewalk

The project proposes to reintroduce pedestrians to the east sidewalk. This will improve walking connectivity (particularly for destinations on the east side of the bridge), reduce conflicts between people cycling northbound and people who still wish to walk on the east sidewalk despite the prohibition, and increase overall space and public views of False Creek for people walking. This would require reallocation of a travel lane across the mid-span of the bridge (see figure 3) and limited bridge widening (along a north-south length of approximately 100m) near the Burrard-Pacific intersection.

**Figure 3: Burrard Bridge Lane Re-allocation**



Reducing the number of general traffic lanes from three to two in each direction on the mid-span of the bridge is not anticipated to significantly impact motor vehicle traffic. Without signals or other factors that affect traffic capacity, two lanes could carry approximately twice the vehicle volume that currently travels across the bridge in the peak hour. Instead, it is the Burrard-Pacific intersection that constrains capacity for northbound vehicles - primarily the number and length of lanes at the intersection and the proportion of the signal cycle length devoted to the northbound movements. Reallocating the lane over the mid-span will better utilize the width of the bridge by providing additional space for pedestrians where the additional lane is not required to accommodate motor vehicle demand.

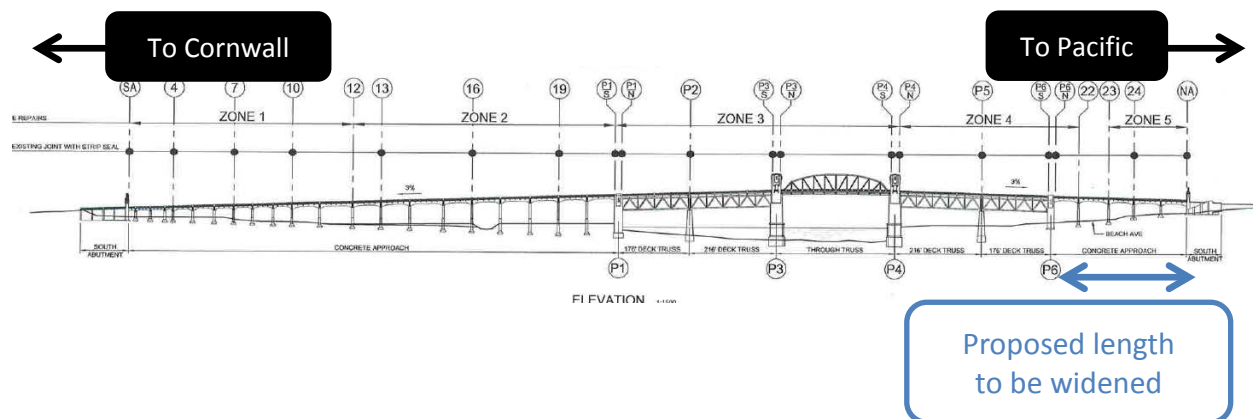
As part of the lane reallocation, the final improvements to the Burrard-Cornwall intersection will be completed to align with this shift in lanes which was anticipated at the time of that project.

### Motor Vehicle Capacity and Bridge Widening

To maintain current motor vehicle capacity through the Burrard-Pacific intersection, dual right turn lanes onto and off of the bridge are needed. On the bridge this would be accomplished by widening the structure by cantilevering the sidewalks on the outside of the

existing structure on the concrete approach (see figure 4). Overall, the proposal will widen approximately 100m of the 859m bridge.

Figure 4: Proposed Bridge Widening



A detailed micro-simulation model was created to help understand the impacts of the proposed changes to motor vehicle capacity. Appendix A shows a summary the results of the modelling. While minor delay is expected for northbound traffic, several movements are improved, including the eastbound turn onto the bridge from Pacific. Overall, the impact to motor vehicle travel times is expected to be negligible, and travel time reliability during peak periods is expected to improve.

New architecturally-enhanced concrete gravity barriers are being proposed for the length of the bridge. The drawings used in the consultation process showed a steel barrier on the widened portion, however as a less costly approach and to allow for future flexibility, staff are considering gravity barriers be included on the widened section in addition to the rest of the bridge, subject to final design and risk assessment.

### Active Transportation Network Improvements at the North End of the Bridge

The project proposes unidirectional protected bike lanes in all directions for intersection legs approaching the bridge to provide all ages and abilities cycling connections to and from the bridge in all directions. This includes bike lanes on Pacific between Thurlow and Howe and on Burrard to Drake (with a provision to extend to Burnaby St in coordination with the development at Burrard and Drake) - see figure 5 for details. To achieve the new design for active transportation improvements while maintaining motor vehicle capacity, the City-owned building at 900 Pacific (the "Kettle of Fish" building) will be removed and a portion of the site would be used to shift the street to the south.



Figure 5: Burrard Bridge North End Improvements



- Unidirectional protected bike lanes (both sides)

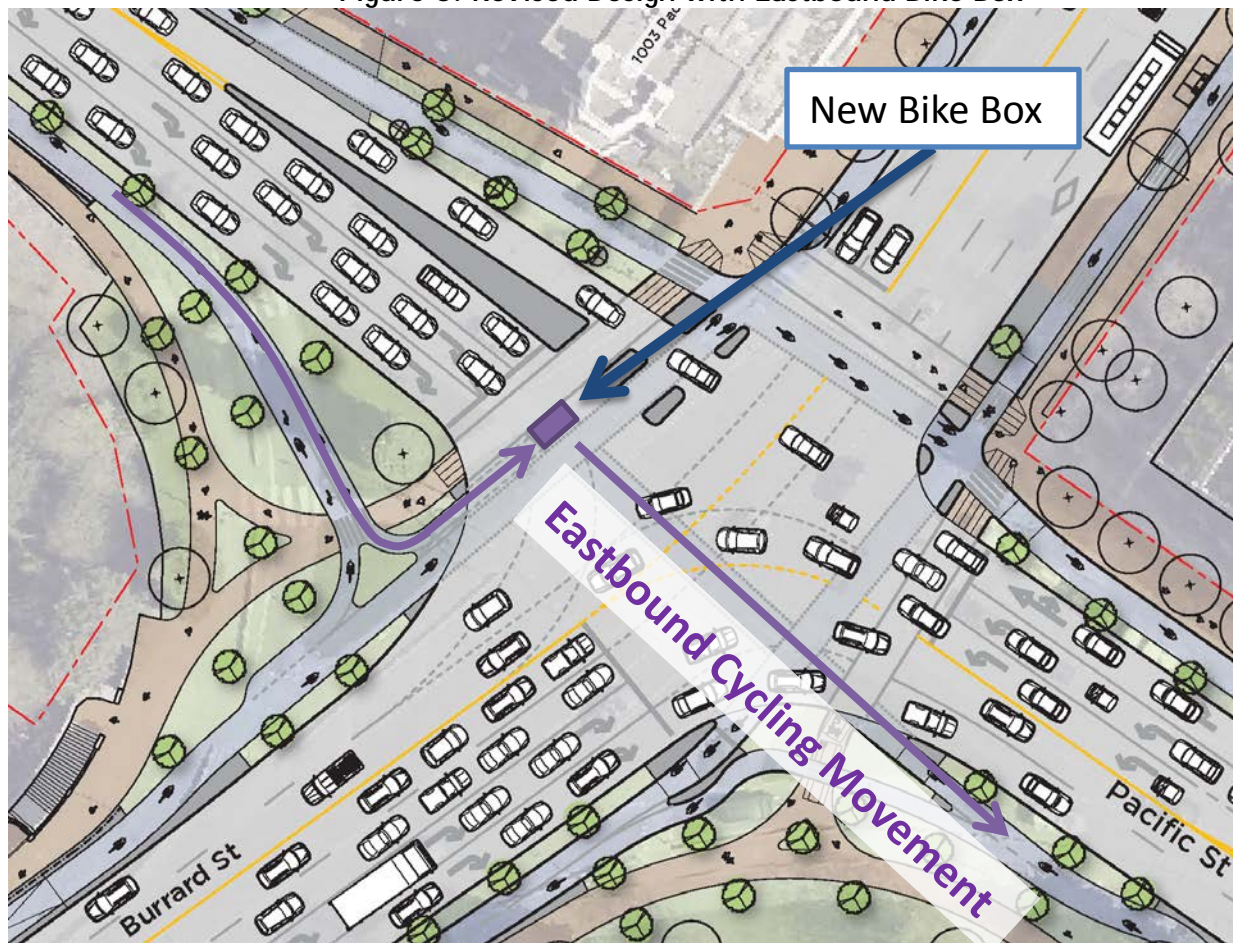
- Bridge widening

- Unidirectional protected bike lane (south side)
- Interim painted bike lane (north side)

The original design that was consulted on (figure 2) didn't include provisions for eastbound cycling across the Burrard-Pacific intersection. Based on public and stakeholder feedback, staff have revised the design to include an eastbound bike box and associated connections (figure 6). The bike box would be positioned so that people cycling would be able to enter it without conflict and proceed with the eastbound motor vehicles. Because they would be to the right of the through traffic there would be little conflict between modes and almost no additional delay for motor vehicle traffic.



Figure 6: Revised Design with Eastbound Bike Box



### Heritage Value

The Burrard Bridge is one of the most important heritage structures in the City of Vancouver, and is significant for its Art Deco design and sculptural embellishments. From a heritage perspective, any alteration to the original character-defining elements of the bridge can have a potential impact, however the proposed interventions have been designed following the "Standards and Guidelines for the Conservation of Historic Places in Canada". While the original concrete handrails are being replaced and the north bridgehead is being widened, the proposal has several positive outcomes from a heritage perspective.

Firstly, the concrete handrails (key character-defining elements) are being rehabilitated along the entire length of the bridge. The design will be a replication of the original, with a smooth board-formed concrete finish. The non-original street lights will be removed from the tops of the handrail and relocated to new platforms outside of the existing railings. This will restore

the bridge more closely to its original state and allow for the possible future reinstatement of the original pedestrian scale lighting. Secondly, the bridge will be restored to a symmetrical condition, which is important to the “road gate” intent of the original design. Lastly, the most significant modifications are limited to the northern approach, which does not affect views from the “sea gate”, Granville Island, and the water.

The motions from the Vancouver Heritage Commission are included in appendix B.

### Coordination of Infrastructure and Public Works Projects

Staff are proposing to coordinate construction of several public works projects with the bridge and safety improvements in order to avoid repeated construction and traffic impacts. These would be funded separately and include:

- Burrard St from 1<sup>st</sup> to 16<sup>th</sup> – water main, sewer, and streets improvements
- Burrard St from Beach to Davie – water main and sewer replacement
- Drake St from Burrard to Hornby – water main replacement

### Public Engagement

Staff have undertaken significant engagement to date and met with key stakeholders in May and June 2015 including: the Transportation 2040 Stakeholder Group, Women’s Advisory Committee Seniors’ Advisory Committee, the Persons with Disabilities Committee, Active Transportation Policy Council (see motion in Appendix B), Downtown Vancouver Business Improvement Association, the West End Business Improvement Association, Vancouver Board of Trade, Heritage Commission, Vancouver Taxi Association, Film Industry, HUB, TransLink, BC Trucking Association, and Heritage Vancouver.

Staff also held several events to speak with local residents, businesses, and the general public. This included:

- talking to people walking and cycling through two lemonade stands,
- informing people driving by talking to them at nearby gas stations, and
- engaging nearby businesses, residents and the general public at two open houses.

Delaney and Associates was commissioned to facilitate the public and stakeholder engagement – their report is attached as appendix C. A quantitative analysis by City staff of survey responses is attached in appendix D.

Common issues that arose from the public were:

1. **Cost** of the project,
2. Perceived reduction in the **motor vehicle capacity** of bridge, particularly across the mid-span where the proposal calls for the conversion of one travel lane in order to allow walking on the east sidewalk,
3. Feedback that the public process was abbreviated and a perceived lack of **engagement**,
4. Concern about **construction impacts** on parking and traffic,
5. **Local impacts** (landscape removal, driveways, etc.),
6. Concern about the transition from a **concrete vehicle barrier** across the midspan to **steel barrier** at the widening,
7. Concern about potential **closure of the lane** south of Pacific between Hornby and Howe to vehicles,

8. Desire for a **southbound bus stop** further south on Burrard (currently two blocks north at Burnaby), and
9. Concern about the lack of **eastbound cycling connections** at Burrard and Pacific.

Key issues from stakeholders were:

10. Lack of provision of **eastbound AAA (all ages and abilities) cycling facilities** through the Burrard-Pacific intersection (HUB, ATPC)
11. **Construction impacts on traffic, tour buses, and goods movement** (Vancouver Trucking Association)
12. Concern about lack of **suicide prevention measures** in the plan (VCH)
13. **Accessibility improvements** - places to rest across the bridge (eg. benches), good cues at transition points for visually impaired pedestrians, improved stairs, and accessible signals (Persons with Disabilities Committee, ATPC)

Staff believe they have addressed these concerns in the following ways:

1. **Cost.** The cost of the project is \$35 million. Approximately \$27 million is required for the structural work and \$8 million for the road work. These are required to maintain an aging asset, improve safety, and achieve active transportation goals. The intersection improvements are expected to significantly reduce collisions and their overall cost to society.
2. **Motor vehicle capacity.** As discussed above, extensive modelling has been done to determine impacts on road users. Based on that work, motor vehicle capacity across the bridge is expected to be generally maintained. The midspan of the bridge, where the northbound vehicle lanes are proposed to be reduced to two lanes from three, will have more than enough capacity to accommodate the northbound motor vehicle traffic in the peak period. The intersection is the limiting factor for capacity and the proposed four northbound lanes and two southbound lanes will have sufficient capacity to accommodate the motor vehicle demand at the intersection.
3. **Engagement.** This project was included in the extensive engagement process for the Transportation 2040 Plan. Additionally, detailed discussions have been underway since 2010 on key issues such as heritage and active transportation. The most recent consultation allowed stakeholders and the public to make constructive comments regarding the design, which are currently being addressed through design refinements, where possible. The bridge is a popular film location and staff will continue to work with the film industry to address concerns, where possible.
4. **Construction impacts.** Staff are committed to working through construction issues with the nearby residents and businesses in order to minimize impacts. There will be aggressive management of traffic and congestion issues and a robust communications plan to ensure that all stakeholders are up to speed. Where there are temporary parking and loading losses, staff will attempt to find other locations nearby to provide better access for businesses and residents.
5. **Local impacts.** Staff have met with several local residents who have expressed concern about specific potential impacts, and are working to resolve them. For

example, there have been concerns about the removal of landscaping on the street right-of-way. When landscaping needs to be removed for the project, staff will give adjacent residents an opportunity to relocate plants to the adjacent property. The project will also add over 60 trees at the north end of the bridge. Residents of the buildings on the north side of Pacific, west of Burrard, also expressed concern about conflicts between the driveways and cycling facilities. These types of issues are not uncommon with protected bike lanes and staff believe that the safety concerns can be addressed through detailed design of the driveway crossings.

6. **Steel vehicle barrier at widening.** Staff have reviewed the proposal and are considering a concrete barrier along the widening. The Vancouver Heritage Commission supported the concrete barrier, subject to it being well-designed (see motion in appendix B).
7. **Lane south of Pacific, west of Howe.** Staff have met with the impacted residents and, based on further design work, are working with the intention that the lane can be left open at Pacific, subject to a final review of grading details. The lane may be limited to one-way northbound to reduce short-cutting, improve safety, and address issues with potential pinch points, but the details will be determined through continued discussion with affected residents.
8. **Bus stop at Burrard-Pacific.** During the engagement process, several residents and stakeholders commented that they would like to see a southbound bus stop on Burrard at Pacific. The stop could be accommodated but it would require removal of the large Cypress tree at the southwest corner of the Burrard-Pacific intersection, something which we would not support. The Cypress tree was likely planted shortly after the opening of the bridge in 1932 and staff are focusing efforts on preserving the tree. The current design would instead accommodate a new bus stop in the curb lane on Burrard, south of Drake St (a half-block closer the Burrard-Pacific than it is now).
9. **Eastbound cycling at Burrard-Pacific.** The modified design accommodates a bike box and associated connections to facilitate the eastbound cycling connection across the intersection (figure 6).
11. **Construction impacts on traffic, tour buses, and goods movement.** Staff will work to minimize the traffic impacts and ensure that any delays are well-communicated. Staff are exploring the possibility of allowing light trucks on the Granville Bridge for the construction period.
12. **Means prevention (suicide fencing).** Staff have now added means prevention (suicide) fencing and crisis phones to the proposal (see discussion below).
13. **Accessibility.** Staff will work to find opportunities for benches on the bridge, and are investigating a combination of tactile treatments and fencing to direct visually impaired pedestrians at transition points, as well as minimizing grade changes, and ensuring that signals meet current accessibility standards in Vancouver. The stairs on both ends will be modified to improve accessibility, including adding wheel ramps for bikes.

### Means Prevention Fencing and Crisis Phones

Means prevention fencing and crisis phones are key measures to help prevent suicides. While it is difficult to prevent planned suicides, many suicides and attempted suicides are impulsive acts. Providing support to people contemplating suicide by installing crisis phones and installing fencing to make it more difficult to jump over the railings are proven methods to reduce potential suicides.

Means prevention fencing was not shown in open houses or online, as it was not proposed in the original scope. It has been included in the final scope based on feedback from the public and stakeholders and particularly related to a letter of concern from the Vancouver Coastal Health (VCH) Medical Health Officer, who wrote to Council and senior management urging that this infrastructure be implemented with the work done on the bridge. Staff will work with the structural engineer, architect, and heritage consultant to design a fence that meets the means prevention needs, but is as aesthetically pleasing, light, and transparent as possible.

From a heritage perspective, the means prevention fencing is highly impactful to both the sea gate and road gate, however the intent is for it to be designed to be sympathetic to, yet distinguishable from, the heritage character of the bridge. Staff will work with the Vancouver Heritage Commission to determine how to best incorporate elements of the pedestrian-level lamp standards into the design of the means prevention fencing, as moving towards achieving the lighting was a key factor in the Commission supporting the fencing.

### *Implications/Related Issues/Risk*

#### *Financial*

The total Multi-Year Capital project budget is estimated to be \$35 million. It is estimated approximately \$20 to \$25 million will be spent in 2016 and \$10 to \$15 million in 2017.

The funding source for this project will be as follows:

- \$30 million from the current approved Multi Year Capital Project Budget for Burrard Bridge Rehabilitation and Upgrades;
- \$4 million from 1262-1290 Burrard Street and 1229-1281 Hornby Street Re-Zoning (RTS 10320);
- \$1 million from City Wide DCL allocated to Transportation.

In addition, staff recommend Council approve a funding source change for the current approved \$30 million dollar Multi Year Capital Project Budget for Burrard Bridge Rehabilitation and Upgrades which involves reducing borrowing authority by \$6 million and replacing it with \$6 million City Wide DCL to reflect an increase in the DCL-eligible component of the overall project.

The \$4 million CAC will be funded from the approved recommendation from RTS 10320 1262-1290 Burrard Street and 1229-1281 Hornby Street as follows:

*\$4 million towards public realm improvements including Comox-Helmcken Greenway and improved bicycle/pedestrian facilities over the Burrard Bridge and/or connections to improved bicycle/pedestrian facilities over Granville Bridge.*

In addition, Staff are seeking funding through several cost-sharing programs, including:

- TransLink Minor Capital (up to \$2 million)
- ICBC safety improvement funding (~\$500,000)
- Building Canada Fund (up to 1/3 of total project cost)

At this time the applications have not been approved however, if these applications are successful, they will reduce the debt-funded costs of the project, where possible. Staff have also approach P3 Canada, who have advised that they are not in favour of a P3 on bridge rehabilitation projects.

### ***Environmental***

Transportation 2040 and the Greenest City 2020 Action Plan identify that a mode shift toward walking, cycling, and transit is critical to accommodate regional population growth and to meet our environmental targets. The proposal addresses a major gap in the walking network by once again allowing walking on both sides of the bridge. In addition, the proposal greatly improves comfort, convenience, and safety for people walking and cycling across the bridge, by upgrading the Burrard/Pacific intersection and providing new or improved connections to the existing walking and biking networks, all while ensuring that transit and good movement are not compromised.

### ***CONCLUSION***

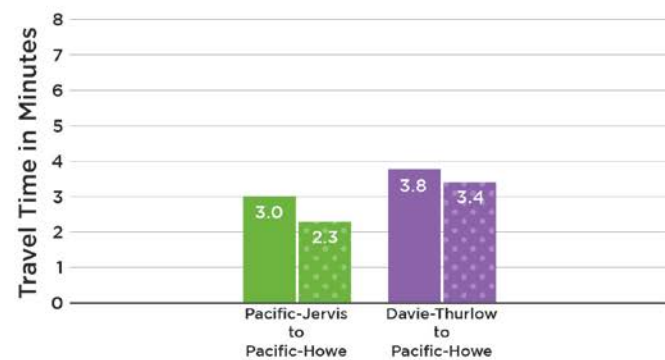
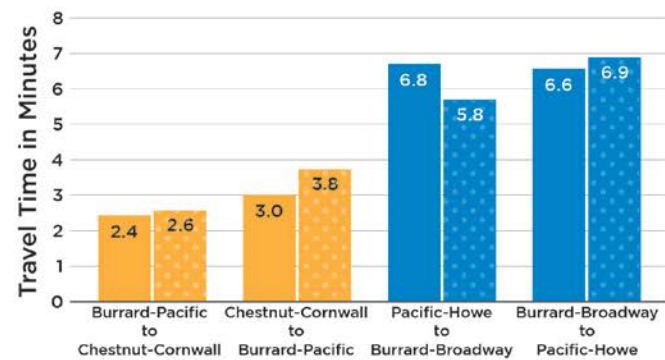
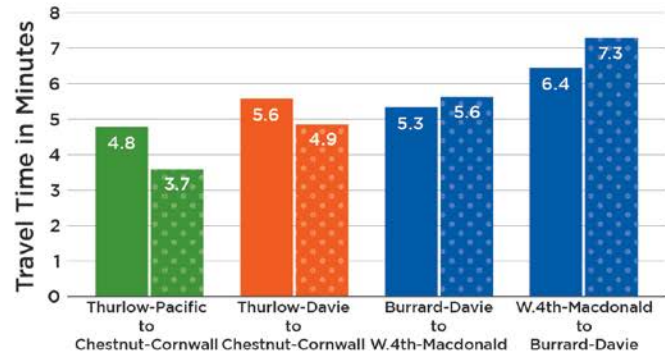
The project, as proposed, addresses the need to rehabilitate the bridge, improve safety at the Burrard/Pacific intersection, and restore walking to the east bridge sidewalk. While several issues arose through the engagement process, staff believe that they have been addressed through the measures proposed in the report.

\* \* \* \* \*



## APPENDIX A: Travel Time Summaries

### Before & After Travel Times for Select Routes (PM Peak)



Solid bars indicate current travel time. Dotted bars indicate projected travel times once the project is complete.  
Travel times are for the PM peak period, which is the busiest time of day for the bridge.  
Projected travel times are based on modelling completed by independent consultants.



## APPENDIX B: Council Advisory Committee Motions

### *1. Active Transportation Policy Council Motion*

#### WHEREAS

1. The intersection at Burrard Street and Pacific Street has the second highest number of traffic collisions in the City of Vancouver;
2. The City of Vancouver's Transportation 2040 Plan calls for a focus on shifting modes to active transportation;
3. Pedestrian traffic across the Burrard Bridge has been steadily increasing but is currently restricted to using only the western sidewalk;
4. There has already been a significant increase in cycling across the Burrard Bridge and the current northbound route on the narrow eastern sidewalk is unsafe;

#### THEREFORE BE IT RESOLVED

THAT the Active Transportation Policy Council supports the proposal presented by City staff, especially the following:

- Provides safer protected connections moving people out of the intersection in all directions;
- Gives people access to eastern sidewalk;
- Within the extent of the project there is a net increase in trees and green space coverage; and
- Removal of slip lanes, normalizing the intersection for increased safety.

AND FURTHER THAT the Active Transportation Policy Council suggests adding the following:

- Permitting pedestrians to cross at all four sides of the Burrard and Pacific intersection. The priority for safety and convenience over other modes needs to be part of the design of this section for the first time;
- An eastbound All Ages and Abilities (AAA) bicycle route from Pacific Street at Bute Street, crossing Burrard Street, to join up with the AAA infrastructure on Pacific Street east of Burrard Street – even if this means removal of one tree. The tree may be compromised by root upheaval during construction anyway. A minimum of 50 new trees will be planted as part of this project; and
- Upgrading the west side and east side stairs to modern accessibility standards.

#### CARRIED UNANIMOUSLY

### *2. Persons with Disabilities Advisory Committee Motion*

THAT the Persons with Disabilities Advisory Committee, at its meeting on June 25, 2015, expressed concerns to staff about safety and wayfinding on the Burrard Bridge for persons who are blind or partially sighted and wishes to see the accessible and audible signals and tactile markers used;

FURTHER THAT the Committee requests there be places for people to rest along the Burrard Bridge.

CARRIED UNANIMOUSLY

*3. Vancouver Heritage Commission Motion*

THAT the Vancouver Heritage Commission supports the scope of work presented at its meeting on June 15, 2015, for the ongoing restoration project for the Burrard Street Bridge being performed by the City of Vancouver.

CARRIED UNANIMOUSLY

At its meeting on July 6, 2015, the Vancouver Heritage Commission approved the following motion, in response to discussion of proposed means prevention fencing and concrete (rather than steel) vehicle barriers on the widened portion of the bridge:

WHEREAS, on June 15, 2015, the Vancouver Heritage approved a motion supporting the scope of work for the Burrard Bridge currently being performed by the City of Vancouver.

THEREFORE BE IT RESOLVED THAT the Vancouver Heritage Commission recommends further design development to the following features of the proposal of the Burrard Bridge as presented at its meeting on July 6, 2015:

- Inclusion of restored/rehabilitated pedestrian heritage lighting
- Redesign of the concrete barriers



3 July 2015

# BURRARD BRIDGE Engagement Summary

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Delaney + Associates is a third party neutral stakeholder and public engagement company. We are certified by the International Association of Public Participation and the International Association for Facilitation. We have no vested interests in the decision for which this engagement was convened. Our instructions from the client were to design and facilitated dialogue in order to reach out to interested and effected parties in order to collect and document advice and concerns. This summary of engagement findings is true and accurate to the best of our knowledge and fully reflects views of those we engaged.



Richard Delaney, CPF, MPA  
President  
Original Draft – Prepared June 26, 2015  
Revised – July 3, 2015

## Burrard Bridge Engagement Summary Report

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### Executive Summary

The City of Vancouver hired Delaney + Associates to support the City's implementation of the Burrard Bridge engagement process, in support of upgrades to the north end of the bridge intersection, including realignment of the intersection, improved pedestrian and cyclist safety measures, adding a new cycle lane and returning pedestrian traffic to the east side of the bridge. All of which means closes an existing vehicle lane. The engagement period was for the month of June 2015, and the purpose was to provide information to stakeholders and the public about the project and to receive comments on a draft design for bridge improvements.

During the engagement period (1-25 June, 2015), there were more than 20 unique engagements ranging from open houses, on-site lemonade stands, online and hardcopy surveys, one-on-one meetings, and presentations with Q&A / discussion sessions. The engagement was robust and sought to include all those stakeholders who may be impacted by the project.

The engagement process highlighted just how vital the Burrard Bridge is as a multi-modal transportation corridor, heritage landmark and key access to the downtown peninsula. While there is significant support for the upgrades, and a clear recognition that safety for all bridge users is paramount, there are specific concerns, questions, and areas of the proposed modifications to the bridge that will require further consideration or evaluation based on what was heard during the engagement process. This report outlines how and what stakeholders were engaged, highlights comments on the proposed design and documents what was heard throughout the engagement.

Stakeholders have a high expectation of ongoing engagement, including feedback on how their input was considered or how it influenced modifications to the bridge and intersection.

# Summary of Engagement

## Engagements Conducted/Assisted by Delaney and Associates

Delaney + Associates (D+A), in coordination with the City of Vancouver (City), contacted numerous stakeholders who may be impacted by the project. The stakeholders contacted by D+A can be divided into two groups and several categories:

- 1) The general public:
  - a. Motorists / Commuters
  - b. Cyclists
  - c. Pedestrians
  - d. Seniors
  - e. Heritage Enthusiasts
  - f. Local Residents
- 2) Organizations serving people who may have interests relating to the project:
  - a. Government agencies
  - b. Non-governmental organizations
  - c. Community organizations
  - d. Businesses Associations potentially impacted by construction or routing
  - e. Corporations with offices in close proximity to the north end of the bridge

This report consolidates and relays our findings to the City for project-based decision making.

We understand the City initiated engagement with residents and businesses near the Burrard Bridge with information sent by mail. The engagement activities undertaken by Delaney sought to add value to this communication and to creatively engage bridge users to inform them of the rationale and approach to the project and to capture their input.

### 1) General Public

Three main types of engagement were used to connect with the general public.

1. Open Houses: Two open houses were organized, both taking place at the Roundhouse Community Centre held Saturday, June 6 and Tuesday, June 16.
2. Lemonade Stands: Two “lemonade stands” (information booths) were set up on the bridge at the intersection of Pacific Street and Burrard Street on separate days. The lemonade stands involved D+A and City staff intercepting people crossing the bridge by foot or bicycle to offer a glass of lemonade, information about the project, answer questions, and solicit feedback. A number of information panels were also set up at the lemonade stands to provide detailed information and the project timeline.

3. Posters: D+A staff conducted two poster campaigns to put up posters and distribute information flyers in gas stations, coffee shops, and other places where people either congregate or pass through as they approach the Burrard Bridge.

**a) Open Houses<sup>1</sup>**

**1<sup>st</sup> Open House – Saturday, June 6, 10 a.m. – 2 p.m.:**

Estimated number of people engaged: 50-70

**2<sup>nd</sup> Open House – Tuesday, June 16, 7-9p.m.:**

Estimated number of people engaged: 80-100

**Written Feedback Received:**

**Positive:**

- I think this is a great project and I really appreciate that City staff are here to answer our questions and show us all this information.
- I appreciate the opportunity to come to this open house and get my questions answered.
- This is going to be great for cyclists. We are all on board.

**Neutral:** None.

**Negative:**

- I did not hear anything about this construction or this session. Why was I not informed?
- They are not going to do a presentation? I have to look at all the information myself?
- Is the City even going to listen to what I have to say? There is no point to this. Seems like it is a done deal.
- The project is too expensive and seems like we are paying too much money to improve the bridge when it was just updated.
- I am really pissed about this project and have a lot to say (filled out two feedback forms).

**b) Lemonade stands**

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<sup>1</sup> D+A staff captured limited feedback from the Open Houses, as the role of D+A staff was primarily to sign people in, orient them, and collect feedback forms.



**1<sup>st</sup> Lemonade stand – Friday, June 5, 3-6p.m.**

Staff: Paul Storer (City of Vancouver), Emina (Delaney), Suzy (Delaney)

Estimated number of people engaged: 150 people

**2<sup>nd</sup> Lemonade stand – Saturday, June 13, 3-6p.m.**

Staff: Paul Storer (City of Vancouver), Sally (Delaney), Suzy (Delaney)

Estimated number of people engaged: 120 people

**Feedback Received:**

**Positive:**

- Lemonade is too sweet :)
- I am happy they are making that intersection safer, it is very dangerous.
- I am an old lady and access to the bridge on both sides is much better for me; it makes the bridge more accessible.
- The intersection is so dangerous and I feel scared crossing onto the bridge with my kids in the stroller.
- I think this is a great project and I am 100% supportive of it.
- As a biker, I welcome the changes to the east side of the bridge, as it is a little dangerous and tight during peak times. Although you are not supposed to pass, people do. Widening the bike lane is a great idea.
- Who designed that intersection in the first place? It is not safe. We saw an accident this morning with a biker and car. I am glad they are going to make it safer.
- I get so nervous every time I bike down Burrard going south onto the bridge from downtown. I am really happy the city will be improving that area.
- Right now the east side is dangerous for bikers because walkers sometimes use it. The addition of walking on the east side will improve this.
- My husband bikes over this bridge every day and I am so nervous about it. I would welcome improvements to this intersection.
- I really liked the improvements that were made on the south end of the bridge, so feel this project will also make a positive impact.

- It really is a pain having to cross to the other side of the bridge to walk over it. Any improvement to that would be great.
- It all seems to make sense to me.

**Neutral:**

- I don't use the bridge that often so the construction will not really impact me on a regular basis.
- What will access to the bridge be like during the construction period?
- I walk the bridge every day and do not really see the need for an additional walking area. It is not a big inconvenience to cross the road.
- It would be great if bikers/walkers could be completely separated from the cars either under or over the bridge.
- Will the loss of the lane on the east-side reduce traffic on an already busy bridge?
- As a regular user of this bridge I see accidents at this intersection happen all the time.
- Why was this not done at the same time as the work on the south side?
- Will the bridge be completely closed during construction?
- We witnessed two families, most likely visitors try to use the bike lane as a pedestrian crossing.
- Will the 'look' of the bridge be maintained?

**Negative:**

- I am not sure why there are spending all this money to upgrade. We didn't need the lane in 2009 and it was too expensive, why do we need it now?
- I live close by and am surprised I didn't hear anything about this before.
- More construction! Didn't you just complete some?
- \$30 million dollars! That is a lot of money. Do we really need to do all this. We spent too much on the Cornwall side in 2009.
- I am concerned about the noise from construction. If it occurs during work hours when I am not at home, that is okay but otherwise I am concerned I will be inconvenienced.

- Why are we just hearing about this? I feel like there should have been more consultation.
- Isn't a done deal anyways, why are you even asking for our input?
- I'm concerned about construction noise as we live right next to the bridge.
- No point in giving feedback, no one is going to listen anyhow.
- Why was the intersection designed so inefficiently in the first place?

**c) Gas station poster campaigns**

**1<sup>st</sup> poster campaign – Tuesday, June 2, approximately 1-3p.m. (North end of the bridge)**

D+A staff requested permission to put up a poster and leave information postcards at the Esso on Burrard and Davie for distribution to patrons. We were told, however, that permission from head office must be sought. As that was the only gas station identified north of the bridge, D+A staff continued to coffee shops and other locations with potential for significant customer traffic. This included approaching the following: Molli Café (took a poster to display as well as some postcards); the Maple Leaf Café and Deli (took postcards to put on the counter); Burrard Corner Store (took postcards); Subway (staff said they are not permitted to put up posters or leave postcards); Bicycle Sports Pacific (took postcards); UPS (took postcards); Cycle City Tours/Cycle Vancouver (took postcards); Afso Café (did not take posters or postcards); TD/Canada Trust (agreed to distribute postcards).

**Comments on 1<sup>st</sup> poster campaign:**

The manager at Bicycle Sports Pacific offered detailed commentary about the traffic patterns at the north intersection. He expressed that he was open to being contacted by the City to provide information or feedback on the possible designs for the intersection based on his experience from the store right near the intersection, and the occurrences that he observes daily.

Owners or staff members of The Maple Leaf Café and Deli, Afso Café, and UPS were very concerned about the short and long-term impacts of the project on their businesses.

**2<sup>nd</sup> poster campaign – Friday, June 12, approximately 12-1p.m. (South end of the bridge)**

Four gas stations were approached:

- Esso at Burrard and Broadway: Staff indicated that they are not allowed to put up posters or distribute postcards.
- Esso at Burrard and 4<sup>th</sup> Avenue: The store manager took one poster and a stack of postcards, and indicated that he would ask permission of head office to display them.

- Chevron at Burrard between 3<sup>rd</sup> and 4<sup>th</sup> Avenues: Staff permitted the displaying of one poster, and took a stack of postcards to put on the counter.
- Petro Canada on Burrard near 1<sup>st</sup> Avenue: Staff indicated that they are not allowed to display posters, but took a stack of postcards to put on the counter.

## 2) Organizations serving people who may have interests relating to the project

### a) Lists of organizations contacted:

The following organizations were contacted directly either by City or D+A staff to provide information and arrange meetings with City staff, for any organizations that desired one. Information project packages were also mailed to residential buildings in the vicinity of the north end of the bridge:

- BC Hydro
- BC Trucking Association (BCTA)
- Better Environmentally Sound Transportation (BEST)
- Downtown Vancouver Association (DVA)
- Downtown Vancouver Business Improvement Association (DVBIA) Access & Mobility Committee
- Fortis BC
- Gateway Council
- Heritage Commission
- Heritage Vancouver Society
- HUB
- Persons with Disabilities Committee
- Port Metro Vancouver
- Robson Street Business Association
- Shaw cable
- Telus
- Tourism Vancouver
- Vancouver filming industry
- Vancouver Heritage Foundation
- West End Business Improvement Association (WEBIA)
- West End Seniors Community Planning Table
- West End Seniors Network<sup>2</sup>
- Women's Advisory Committee
- TransLink
- Advisory Committee on Seniors' Issues

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<sup>2</sup> A member of the West End Seniors Network attended the meeting on June 19 with the Seniors Advisory Committee, and expressed an appreciation at being contacted, but some frustration at the short notice and the short consultation period as this organization would have liked to engage more robustly but they were not able to within the City's timeline.

- Vancouver Taxi Association
- Vancouver filming industry representatives
- Vancouver Board of Trade
- Active Transportation Policy Council Projects Subcommittee
- Transportation 2040 Plan Stakeholder Committee
- Persons with Disabilities Committee

Of the organizations listed above, the following were satisfied by the information provided by D+A and indicated they did not request further consultation:

- West End Seniors Network\*
- Robson Street Business Association
- Fortis BC

Of the organizations listed above, the following either:

a) did not respond to the initial contact made by D+A, or

b) responded initially, but did not follow up with a request for a meeting, or did not continue to respond to the extent that would have been required to set up a meeting:

- Downtown Vancouver Association
- West End Seniors Community Planning Table
- Port Metro Vancouver
- BC Hydro
- Telus
- Shaw
- Tourism Vancouver
- Gateway Council

Of the organizations who desired meetings with the City, the following meetings were arranged:

- Women's Advisory Committee: June 2, 5.30-7.30 p.m.
- HUB: June 16, 5.15-6 p.m.
- West End Business Improvement Association (WEBIA): June 15, 2 p.m.
- BC Trucking Association (BCTA): June 23, 9-10 a.m.
- Better Environmentally Sound Transportation (BEST): City staff attended their staff and volunteer appreciation night on June 12 and presented the project
- Downtown Vancouver Business Improvement Association (DVBIA) Access & Mobility Committee: (during the Committee's regular meeting) June 11, 12-1.30 p.m.
- Heritage Commission: June 15, 11 a.m.
- Heritage Vancouver Society: June 24, 6-7.30 p.m.
- TransLink: June 17, 10 a.m.
- Advisory Committee on Seniors' Issues: June 19, 9.30-10.30 a.m.

- Vancouver Taxi Association: June 5, 9.30 a.m.
- Vancouver filming industry: June 30, 7 p.m.
- Vancouver Board of Trade: June 19, 9 a.m.
- Active Transportation Policy Council Projects Subcommittee: June 3 @ 6 p.m.
- Transportation 2040 Plan Stakeholder Committee: May 26, 2015
- Persons with Disabilities Committee: June 25, 5 p.m.

**b) Summaries of meetings held (at which D+A staff took notes):**

**Women’s Advisory Committee (June 2, 5.30-7.30 p.m.)**

The City (Paul Storer) gave an overview of the Burrard Bridge Upgrade and North Intersection Project, following which the Committee had the opportunity to ask questions. Committee members asked a wide range of questions spanning from lighting on the bridge to media coverage of the project, as well as the process of obtaining Council funding and approval for large projects and a variety of additional questions. The meeting was adjourned after the Committee had finished asking questions, and Mr. Storer provided members with information about the project website as well as additional avenues through which to provide feedback.

**HUB (June 16, 5.15-6 p.m.)**

The City (Paul Storer) gave a presentation; he went through the slides in a targeted manner, as several HUB members in attendance were already familiar with many of the details of the project. HUB members then asked questions of the City team for approximately 30 minutes. HUB members overall were supportive of the project, and asked several detailed questions about cycling connections. One of their greatest concerns was the intersection crossing for cyclists heading eastbound on Pacific, through Burrard. The City team answered all questions, and made HUB aware of their right to make a formal submission to City Council expressing their preferences for cycling connections and other cycling provisions related to the project.

**West End Business Improvement Association (WEBIA) (June 15, 2pm)**

The City (Paul Storer) attended one of the West End Business Improvement Association’s regular meetings, making a presentation about the project followed by a question and answer period. WEBIA members expressed concerns in a few categories, including the removal of the vehicle lane, impacts on businesses during construction, and the difficult crossing for cyclists heading eastbound on Pacific across Burrard Street. Members also expressed a strong desire for the City to install the necessary infrastructure to allow multi-coloured lighting on the bridge, either for special events or to help light up the city when it is rainy and cloudy.

**BC Trucking Association (BCTA) (June 23, 9-10 a.m.)**

Following the presentation by Paul Storer, meeting participants representing various trucking, tourism-related, and other transportation companies, asked several questions. Most of the questions surrounded impacts during construction on travel times and scheduling for picking up/dropping off and deliveries. Participants also asked detailed questions about the new signaling and arrangement of the north intersection, as well as impacts on travel times for different directions or routes following construction. A strong desire was expressed for the City to explore options to make Granville Bridge available during construction to as much truck/bus/other large vehicle traffic as its weight capacity can handle, to minimize disruptions to scheduling for trucking and other transport companies during that phase. The City team stated that they will look into the question of allowing additional heavy vehicle traffic on Granville Bridge, including a review of the previous discussion on the same topic which occurred several years ago, and will report back to meeting participants.

The BCTA and/or representatives from companies present at the meeting prepared a formal submission on the project (see attached Louise Yako letter, 3 July 2015), which is supportive overall while requesting the City “designate the Granville Bridge, Howe Street, and Seymour Street as a “limited-use” truck route for the duration of the project.”

**Downtown Vancouver Business Improvement Association (DVBIA) Access & Mobility Committee (June 11, 12-1.30 p.m.)**

The meeting between the City and the Downtown Vancouver Business Improvement Association (DVBIA)’s Access and Mobility Committee took place during one of the Committee’s regular meetings. The segment concerning the Burrard Bridge took up approximately 20-30 minutes of the 1.5 hour-long meeting. Paul Storer with the City’s team gave a presentation and took questions afterward. Overall, the DVBIA’s Access and Mobility Committee is supportive of the project, as it will improve access to downtown Vancouver once it is completed and is therefore consistent with their goals.

**Heritage Commission (June 15, 11 a.m.)**

Paul Storer from the City began by giving a PowerPoint presentation to Heritage Commission members describing the project. He indicated that the City had worked with a consultant (Donald Luxton) regarding heritage aspects of the bridge. Following the presentation, Commission members asked several questions, including about the removal of one vehicle lane and the planned changes to the north intersection, with respect to car traffic. Paul Storer responded that commute times would increase only slightly, and that the intersection is the primary capacity constraint. Ultimately, members of the Heritage Commission expressed their support for the project and its plans to protect the heritage value of the bridge, stating that it is great to be in a time where the Commission does not have to fight for a voice regarding protecting the heritage value of the bridge, and can easily communicate with the City about this topic.

**TransLink (June 17, 10 a.m.)**



After a brief presentation by the City, members of TransLink in attendance asked questions related to the public feedback received so far, as well as issues related to the arrangements for bus and truck traffic across the bridge during construction. The City representative noted that most public feedback so far has been in four areas:

1. reallocation of the vehicle lane;
2. impacts during construction;
3. eastbound cycling on Pacific through Burrard; and
4. laneway between Hornby and Howe.

The City also noted that most trucks travel across the bridge during off-peak hours, that they will ensure that lanes are wide enough for buses, and that buses can safely navigate the new traffic patterns. Participants also recommended a joint meeting with the Port and the Gateway Council as they would have similar questions to TransLink. A recommendation was also made to connect with Coast Mountain Bus Company (CMBC).

#### **Advisory Committee on Seniors' Issues (June 19, 9.30-10.30 a.m.)**

After a presentation by Paul Storer, Committee members asked a series of questions. Some skepticism was expressed regarding plans for the north intersection and whether the changes would make things better for traffic of all types and all directions. Mr. Storer explained some of the reasoning behind the proposals for the changes and new signaling at the intersection, and some of the challenges and trade-offs the City team faced. Participants seemed to largely agree that these were sound considerations, and that the plans were realistic. Some concern was expressed over the length of the crossings with respect to signal timing. Mr. Storer explained that the City recently increased the amount of crossing time it plans for when designing intersections and signaling, as they realized the previous benchmark was not allowing people enough time to cross.

Overall, participants concluded by expressing support for the project. They, however, also expressed a strong interest in being engaged much earlier in the process, as it seemed too late at this stage for certain ideas to be considered (e.g. a Bailey bridge for pedestrian/cyclists), even though they may have been very good ideas.

#### **Vancouver Taxi Association (June 5, 9.30 a.m.)**

The Vancouver Taxi Association expressed support for the project overall. They expressed concerns about how the south intersection was done in the previous phase, but were of the opinion that the plans and design for the north intersection would work well. Members asked about putting mirrors in for the bike lanes (in general), to make it easier to see bikes coming before turning; Paul Storer from the City explained that it was not City practice to install mirrors. Another topic of discussion included the slip lanes for cars turning right from Pacific on to the bridge. Taxi Association members said there is a stop sign for cyclists, but they often don't stop. Other safety challenges associated with the slip lanes were also discussed. Meeting participants also asked about the planned construction phase and what the impacts would be during construction.

#### **Vancouver filming industry (June 30, 7 p.m.)**

After a presentation by the City of Vancouver, participants asked several questions. Three principal concerns were expressed. The first was that a significant amount of filming takes place on the Burrard Bridge, especially for car commercials, in part because of unique features that make for visually appealing scenes, and the construction would restrict their ability to film these scenes. Participants also noted, however, that the construction zones often provide unique filming opportunities as well. For this reason, a request was made for ongoing information about construction and closure schedules, and instructions on how to access restricted zones for shooting during these times. The topic of the green paint indicating cycling zones arose; participants expressed frustration over this decision which took place a few years ago, as it has affected their ability to film and there are costs associated with temporarily painting over it. The greatest concern was the impact on the film industry of the visual changes that would result from the potential addition of “means prevention” (suicide prevention) fencing; one participant wondered if any provision could be made for this to be removable for filming purposes.

#### **Persons with Disabilities Committee (June 25, 5-6 p.m.)**

The meeting opened with a short presentation from the City. The presentation covered the key elements of the project and highlighted that the key objectives were improving safety and active transportation as well as improving infrastructure on, as well as underneath the bridge (sewer and water mains). Safety and wayfaring were the Committee’s biggest concerns. Two issues were raised and were officially incorporated into the Committee’s meeting minutes: (1) Signaling at crosswalks/intersections on the bridge as well as areas along the active transportation corridors that separate bikes and pedestrians, and (2) Accessibility and flow along the pedestrian corridors, specifically having places for people with disabilities and seniors to sit or rest. Committee members were also advised that the City will accept additional feedback in the coming weeks regarding bridge design and the City welcomes that feedback.

#### **Heritage Vancouver Society (June 24, 6-7 p.m.)**

The meeting between the City and the Heritage Vancouver Society covered many specific heritage-related topics relating to the project, including the proposed barriers between the bike and vehicle lanes, the potential addition of suicide fencing, the handrails, and the different types of lighting on the bridge.

Heritage Vancouver members expresses an interest in alternatives to steel barriers, expressed concern over the high heritage impact of suicide fencing, and asked questions about the City’s plans for the handrails and lighting, while asking the City if it is possible to include repairs of the brazier lights in the plan. The City team responded to all questions and in doing so provided additional information on topics like safety codes for barriers, that some of the lighting on the bridge is not part of the original design, and information on the alternatives they had considered for various questions raised by participants. The City team

explained that they have not finalized decisions on barriers yet, but any chosen option needs to meet safety standards. The City also acknowledged the significant heritage and historical value of the brazier lights, their sub-optimal condition, and the need to repair them in the near future. They also explained the significant and unique challenges associated with performing these repairs, as they had discovered in their initial assessment of the brazier lights for this project. The City team invited the Heritage Vancouver Society to make a formal submission to City Council should they wish to express official positions on aspects of the project.

## Engagements Conducted by the City of Vancouver, tracked by D+A

Several forms of engagement were organized and conducted by the City of Vancouver, and tracked by D+A. These included a survey which was distributed in hard copy at the Open Houses and online ([vancouver.ca/burrardbridgenorth](http://vancouver.ca/burrardbridgenorth)), and interaction directly to City staff/officials by email. In addition to the above, D+A tracked the timing and status of all engagements through a document shared with the City.

### a) Correspondence Received by Email

Comments made electronically (as distinct from responses to the online survey) were done in several ways. Some people emailed directly, either to the City team or to a member of City Council. Others used the feedback tool available on the project website. A few people emailed [info@vancouver.ca](mailto:info@vancouver.ca) or the City's Correspondence Group, and a few contacted the City through the 3-1-1 service. As of July 3, 49 comments in total had been forwarded by the City to D+A. The following section summarizes the electronic feedback. A detailed analysis can be found in Appendix D.

**Correspondence Received:** 49

**Unique Participants:** 47

**Comments not relating specifically to the project:** 5 (3 of which were criticisms of the engagement (information [2], timing [1]))

## Themes:

- Opposition to removal of lane for vehicle traffic (19 out of 46 comments)
- Expression of support for project (13 out of 46 comments). Some of these commenters also expressed concerns about particular aspects of the project, while being supportive overall)
- Several residents of the Seastar building at 1003 Pacific expressed opposition to the project, based on their impression that the City would be removing some of their property and limiting access to their parking facilities (5 out of 46 comments)
- Suggestions, concerns, or questions on specific aspects of the project (11 out of 46 comments)

## b) Surveys

The project survey was administered both online and in person at the two open houses. Survey results from quantitative questions have been analyzed by City staff and are summarized in a separate report. Question #7 was an open-ended question that asked respondents “Do you have any comments about intersection design?”. In this section, we provide a summary of responses, with additional comments in Appendix D. A full detailed list (Excel) of the responses is attached to the email that transmitted this report to the City:

**Responses to Question 7:** 1,097 of 1,872 (59%) of respondents left comments on question 7.

Many respondents used the open-ended text box for question 7 to express their thoughts and opinions about the project as a whole, or specific aspects of it, despite that the question invited comments specifically on the design of the north intersection. Questions 1-6 of the survey were close-ended asking about project implementation and none provided the opportunity for general comments. It is assumed most, if not all, online respondents did participate in other ways, and thus considered this question their only opportunity to provide comments on the project as a whole.

Of the 1,097 responses to the question, 229 (21%) included specific comments or recommendations for the north intersection, which was the intention of the question. The majority of these comments are well-informed and constructive.

A breakdown of all of the themes noted in the comments follows.<sup>3</sup>

Theme	Number of responses
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<sup>3</sup> Since many respondents commented on more than one aspect of the project, a single response can be associated with more than one theme, and therefore the total number of responses in this table greatly exceeds the total number of responses to the question.

Theme	Number of responses
<b>Design concerns or recommendations</b>	<b>229</b>
Concerned about removal of car lane/insufficient attention to driver needs/will increase congestion	302
General approval	241
General disapproval	185
Suggest flawed consultation process or information provided	83
Complaints about dangerous cyclists or giving priority to cyclists	80
Waste of money/cost concerns	66
Concerns about crossing Burrard	49
Support east side pedestrian access	42
Don't support east side pedestrian access	39
Supports addition of bike lane / improvements for cyclists	34
Concern / ideas about aesthetics	20
General safety concerns	16
Concerns / suggestions for approach to construction	14
Seastar building resident concerns	12

From those responses to question 7 that focused on the design of the north intersection, the following represented either themes that arose, or specific suggestions not heard by D+A in other consultations:

- The suggestion to make bike lanes seasonal; use barriers to separate bike lanes during the months when ridership is high, and remove the barriers for the winter and give the lane to vehicles.
- Many echoes of concerns expressed in other forums over the safety of crossing Burrard on Pacific by bicycle.
- Observations about potential “downstream” impacts to bike and vehicle traffic, mostly as relates to activity on Hornby, but other observations too.
- Concerns about bike lanes being too narrow to handle addition use, particularly on inclines to afford extra room of passing.
- Recommendations for additional or clearer signage to guide all forms of transportation.
- Suggestions for a pedestrian / cyclist overpass for Burrard at Pacific.
- Suggestions for a dedicated pedestrian / cyclist bridge over False Creek.

## Key Themes

In discussions and written input, stakeholders asked how feedback is being integrated into the planning process. This had not been discussed at project team meetings and D+A did not engage these discussions or provide any response. The City is working on a separate report which outlines how feedback received during engagement has influenced project design, scope, and implementation.

This section summarizes the key themes heard at engagements in which D+A were present:

### **Positive feedback:**

- Return of pedestrians to east side of bridge (web/email comments, HUB, lemonade stands, web/email comments, survey comments)
- Improved safety at north intersection (web/email comments, lemonade stands, Vancouver Taxi Association, BC Trucking Association, survey comments)
- Separation of bike traffic (unidirectional bike lanes) (HUB, survey comments)
- Improved access to downtown for all modes once project is completed (DVBIA Access & Mobility Committee)
- Combination of several tasks to minimize overall impacts (Poster campaigns)

### **Neutral feedback/requests:**

- Requests for clear wayfinding signage for all forms of transportation (HUB, web/email comments, survey comments)

### **Negative feedback/concerns:**

- Eastbound cycling on Pacific through Burrard (HUB, web/email comments, survey comments)
- Short consultation period; much already decided, limiting opportunities for suggestions which could be good, but would have needed earlier consultation (Lemonade stands, Advisory Committee on Seniors' Issues, web/email comments, survey responses)

- Impact on businesses from construction or other aspects of project such as potential loss of parking (Swan Laundry, UPS, Maple Leaf Café and Deli, Afso Café, web/email comments)
- Removal of car lane (web/email comments, survey comments)
- Impact on trucking and other transportation/delivery traffic during construction (BC Trucking Association)
- Parking; entering and exiting for residents and guests of the condo building at 1003 Pacific Street (web/email comments, survey comments)
- Closure of the lane between Hornby and Howe (web/email comments, survey comments)
- Access to and from West End from the bridge/Pacific (web/email comments, Advisory Committee on Seniors' Issues, survey comments)

### **Specific Suggestions or Concerns by Specific Stakeholders or Groups**

The following table summarizes specific suggestions made or concerns expressed by an identified stakeholder group in engagements which D+A staff attended, for those groups who expressed specific concerns or made specific suggestion (not all did).

Note that this is not meant to be an exhaustive list of all stakeholder suggestions or concerns, but rather a list of those considered extremely important or critical to the stakeholder. It also does not include any generalized concerns by a broad group of stakeholders, e.g. motorists; it is meant to document specific requests/concerns held or made by specific stakeholders or groups.



Group	Concern/Request
HUB	(Concern): Eastbound cycling on Pacific across Burrard
HUB (echoed in survey comments; web/email comments)	(Suggestion): Additional or clearer signage to guide all forms of transportation.
Businesses on Burrard	(Concern): several businesses on Burrard between Pacific and Davie attended open houses and / or contacted D+A directly. D+A listened to their concerns, which include the loss of street parking, disruption to business during the construction period, routing changes that make accessibility to their businesses by customers more challenging, which would have a negative impact on their business / livelihood.
West End Business Improvement Association (WEBIA)	(Suggestion): Infrastructure for multi-coloured lighting on the bridge
BC Trucking Association	(Concern): Impact on trucking/transport routes during construction (Request): Strong suggestion to examine options to temporarily allow heavier vehicles on Granville bridge to the extent that it can safely handle.
Advisory Committee on Seniors' Issues; Persons with Disabilities Committee	(Concern): Length of crosswalks/refuges in the middle of crosswalks
Advisory Committee on Seniors' Issues (echoed in survey comments to some extent)	(Concern): Insufficient length of consultation period/strong desire to have been engaged earlier before critical/limiting decisions made.
Persons with Disabilities Committee	(Suggestion): Signaling for disabled persons at crosswalks/intersections on the bridge. (Request): Places for people with disabilities and seniors to sit or rest along pedestrian corridors
Heritage Vancouver Society	(Concern): Impact of potential suicide fencing on heritage aspect of bridge (Concern): Impact of potential steel barriers (as opposed to concrete) on heritage aspect of bridge (Suggestion): Repair/restoration of brazier lights
Filming industry representatives	(Concern): Impact of potential suicide fencing on visuals for filming (Concern): Impact of construction closures on filming (Concern): Ongoing concern about green paint indicating cycling zones

## Ongoing Engagement & Communications

The City, with support from D+A, met with a large number of individuals and stakeholder groups during an intensive consultation period covering nearly a one-month period in June 2015. Many concerns have been noted. However, it is important to recognize that there have been many voices of encouragement and support for this project.

By and large, individuals and organizations expressing concerns have also clearly expressed appreciation at the opportunity to contribute to the project. Overall, the engagement has provided many opportunities and many different avenues for people to contribute their input, and a large volume of information has been widely dispersed in a relatively short period of time. The engagement process has helped to establish, or in many cases further build and deepen, the City's relationship with stakeholders who have an interest in the Burrard Bridge project and an interest in transportation and infrastructure projects more broadly. There is a clear expectation from key stakeholders to remain engaged throughout the project. This appetite for dialogue offers the City the opportunity to build trust and further deepen their working relationship with these groups.

Below, we detail aspects of the Burrard Bridge engagement that worked well, as well as listing any information captured directly by D+A on the current expectations of stakeholders regarding future communication and engagement on this project.

### What Worked Well

- Approaching groups directly: most stakeholder groups that met with City staff, even if they had strong concerns about aspects of the project, expressed their appreciation at being consulted/included/considered (though many also expressed some disappointment at not being engaged pre-design);
- The lemonade stands were an effective and light-hearted way to communicate a lot of information to people who clearly use the bridge;
- The open houses were also an effective method of connecting with the interested public to provide information, respond to questions or concerns, and to provide detailed information to a large number of people; and
- The City's approach has strengthened relationships with many organizations and individuals which will be beneficial to all with respect to future projects and initiatives.

## Next Steps

The City's goal is to bring the project to City Council for its 22 July 2015 session for a decision. City staff will use the present report as well as many other sources to compile its report to Council in preparation for the meeting and decision. Several stakeholder organizations have communicated to D+A interest in making, formal submissions to Council; these include HUB, BC Trucking Association, and Heritage Vancouver Society.

In addition, the City has stated that it will return to certain stakeholder groups once more refined details are finalized on various aspects of the project. For example, the City stated an intention to return to consultation with the BC Trucking Association over the possibility of allowing heavier traffic on Granville Bridge during the construction period on the Burrard bridge and north intersection. In certain other cases the City has stated its intention to also conduct additional follow-up consultation.

Based on the significant participation of the public and stakeholders on this project, it is clear that ongoing communications and engagement will be required through to construction.

## Appendix A – Intercept Engagement Summary

D+ A, in concert with City staff, conducted two intercept engagements on the Burrard Bridge, in the form of lemonade stands near the north intersection. The first lemonade stand was held Friday, June 5 from 3-6 p.m., and the second on Saturday, June 13 from 3-6 p.m.

### **1<sup>st</sup> Lemonade stand – Friday, June 5, 3-6 p.m.**

Staff: Paul Storer (City of Vancouver), Emina (Delaney) and Suzy (Delaney)

Estimated number of people engaged: 150 people

### **2<sup>nd</sup> Lemonade stand – Saturday, June 13, 3-6 p.m.**

Staff: Paul Storer (City of Vancouver), Sally (Delaney) and Suzy (Delaney)

Estimated number of people engaged: 120 people

### **Feedback Received**

#### **Positive:**

- Lemonade is too sweet :)
- I am happy they are making that intersection more safe, it is very dangerous
- I am an old lady and access to the bridge on both sides is much better for me; it makes the bridge more accessible
- The intersection is so dangerous and I feel scared crossing onto the bridge with my kids in the stroller
- I think this is a great project and I am 100% supportive of it
- As a biker, I welcome the changes to the east side of the bridge, as it is a little dangerous and tight during peak times. Although you are not supposed to pass, people do. Widening the bike lane is a great idea
- Who designed that intersection in the first place? It is not safe. We saw an accident this morning with a biker and car. I am glad they are going to make it safer
- I get so nervous every time I bike down Burrard going south onto the bridge from downtown. I am really happy the city will be improving that area.
- Right now the east side is dangerous for bikers because walkers sometimes use it. The addition of walking on the east side will improve this.
- My husband bikes over this bridge every day and I am so nervous about it. I would welcome improvements to this intersection.
- I really liked the improvements that were made on the south end of the bridge, so feel this project will also make a positive impact.
- It really is a pain having to cross to the other side of the bridge to walk over it. Any improvement to that would be great.

- It all seems to make sense to me.

**Neutral:**

- I don't use the bridge that often so the construction will not really impact me on a regular basis
- What will access to the bridge be like during the construction period?
- I walk the bridge every day and do not really see the need for an additional walking area. It is not a big inconvenience to cross the road
- It would be great if bikers/walkers could be completely separated from the cars either under or over the bridge
- Will the loss of the lane on the east-side reduce traffic on an already busy bridge?
- As a regular user of this bridge I see accidents at this intersection happen all the time.
- Why was this not done at the same time as the work on the south side?
- Will the bridge be completely closed during construction?
- We witnessed two families, most likely visitors try to use the bike lane as a pedestrian crossing.
- Will the 'look' of the bridge be maintained?

**Negative:**

- I am not sure why there are spending all this money to upgrade. We didn't need the lane in 2009 and it was too expensive, why do we need it now?
- I live close by and am surprised I didn't hear anything about this before
- More construction! Didn't you just complete some?
- \$30 million dollars! That is a lot of money. Do we really need to do all this? We spent too much on the Cornwall side in 2009
- I am concerned about the noise from construction. If it occurs during work hours when I am not at home, that is okay but otherwise I am concerned I will be inconvenienced
- Why are we just hearing about this? I feel like there should have been more consultation
- Isn't a done deal anyways, why are you even asking for our input?
- I'm concerned about construction noise as we live right next to the bridge.
- No point in giving feedback, no one is going to listen anyhow.
- Why was the intersection designed so inefficiently in the first place?

## Appendix B – Poster Campaign Summary

D+A conducted two poster campaigns, which included requests to display posters and/or leave information postcards. The first was on the afternoon of Tuesday, June 2, and the second was early afternoon on Friday, June 12. The details are as follows:

### June 2:

Number of gas stations visited	1
Number of other locations visited	10
Number of posters posted	1
Number of stacks of postcards given out	7
Location(s) of gas stations visited	Esso at Burrard and Davie
Location(s) of poster(s)	Molli Café on Burrard near Davie (west side)
Location(s) of postcards	Molli Café, Maple Leaf Café/Deli, Burrard Corner Store, Bicycle Sports Pacific, UPS, Cycle City Tours, TD/Canada Trust

**Comments received** (all are paraphrased/described, and are not meant to be a verbatim recording of anyone's specific words):

**Maple Leaf Café/Deli:** The man who was likely the owner agreed to take postcards to put on counter. He also offered some views on the project, e.g. the City should spend money on 'things that are really needed' (paraphrased), like schools and hospitals. The bridge is only falling apart because they added more weight to it.

**Burrard Corner Store:** The man who was likely the owner agreed to put postcards on the counter. He also offered some views on the project. E.g. 'why aren't they working to make the Granville Bridge safer?'

**Bicycle Sports Pacific:** The store manager is open to meeting with the City to provide specific input into the design of the north intersection. He observes the intersection every day, including many collisions.

**UPS:** The store owner has significant concerns based on a previous Olympics-related project/parking restriction.

**Afso Café:** The man who was likely the owner did not want to take posters or postcards. He said (paraphrased) 'you don't want to know what I think of the City'.

**Swan Laundry:** The owners of Swan Laundry are extremely concerned about the loss of parking, as their customers use it to offload large loads of laundry. They are very worried about the impact of the project on their business and believe it to be a clear threat. Relocation is not an option for them as they recently signed an eight-year lease.

Most of the business owners along Burrard are ready and willing to provide more detailed input.

**June 12:**

Number of gas stations visited	4
Number of other locations visited	0
Number of posters posted	1 (gave another one to manager of Esso on 4 <sup>th</sup> Avenue, but not sure if he will be able to post it)
Number of stacks of postcards given out	3
Location(s) of gas stations visited	Esso at Burrard and Broadway, Esso at Burrard and 4 <sup>th</sup> Avenue, Chevron on Burrard between 3 <sup>rd</sup> and 4 <sup>th</sup> avenues, Petro Canada on Burrard near 1 <sup>st</sup> Avenue.
Location(s) of poster(s)	Chevron on Burrard between 3 <sup>rd</sup> and 4 <sup>th</sup> avenues
Location(s) of postcards	Esso at Burrard and 4 <sup>th</sup> Avenue (manager not sure if he could display them), Chevron on Burrard between 3 <sup>rd</sup> and 4 <sup>th</sup> avenues, Petro Canada on Burrard near 1 <sup>st</sup> Avenue.

**Comments received:** None.

## Appendix C – Open House Summary

The first of two Open Houses was held on Saturday, June 6, from 10 a.m. – 2 p.m. at the Roundhouse Community Centre. The second Open House was held on Tuesday, June 6, from 3-6 p.m, also at the Roundhouse Community Centre.<sup>4</sup>

### **1<sup>st</sup> Open House – Saturday, June 6, 10am – 2 p.m.:**

Estimated number of people engaged: 50-70

### **2<sup>nd</sup> Open House – Tuesday, June 16, 7-9 p.m.:**

Estimated number of people engaged: 80-100

#### **Positive:**

- I think this is a great project and I really appreciate that City staff are here to answer our questions and show us all this information.
- I appreciate the opportunity to come to this open house and get my questions answered.
- This is going to be great for cyclists. We are all on board.

**Neutral:** None.

#### **Negative:**

- I did not hear anything about this construction or this session. Why was I not informed?
- They are not going to do a presentation? I have to look at all the information myself?
- Is the City even going to listen to what I have to say? There is no point to this. Seems like it is a done deal.
- The project is too expensive and seems like we are paying too much money to improve the bridge when it was just updated.
- I am really pissed about this project and have a lot to say (filled out two feedback forms).

## Appendix D – Online Engagement

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<sup>4</sup> D+A staff captured only limited feedback from the Open Houses, as the role of D+A staff was primarily to sign people in, orient them and collect feedback forms. D+A notes that the City team spoke with the owners of Swan Laundry at the second Open House, but is not aware of the details.



## Electronic comments (“web/email comments”)

D+A assessed the comments made by email, the feedback tool on the project website, and through the City’s 3-1-1 service. Following is a detailed analysis of those comments\*:

*\*A full listing of all web or email comments has been made available to the City in a separate document.*

### Summary

Correspondence Received: 49

Unique Participants: 47

Comments not relating specifically to the project: 5 (3 of which were criticisms of the engagement (information [2], timing [1]))

### Stakeholder Groups

In most cases, the nature of individual input provides the opportunity for identification of the stakeholder group to which participants belong. This was clearly a subjective determination. By this method the following groups / interests have been identified:

Motorist – a participant who, based upon their comments uses the bridge and surrounding road network in their personal vehicle.

Professional Driver – a taxi, limo, shuttle or bus driver

Cyclist – a participant who uses the bridge and surrounding road network via bicycle

Resident – a participant who lives in proximity to the north or south end of the Burrard Street Bridge

Seastar Resident – participants residing at 1003 Pacific Street

Senior – participant referred to themselves as a “senior”

Local Consumer – using local businesses

### Rates of Stakeholder Participation

Motorist	13	Cyclist / Motorist	1
Cyclist	6	Motorist / Resident	1
Resident	8	Motorist / Local Resident	1
Seastar Resident	5	Pedestrian / Motorist	1
Unknown	4	Local Consumer	1
Resident / Senior	2	Professional Drivers	1
Pedestrian	2	Directors Guild of Canada	1

### Summary of Burrard Bridge Upgrade and North Intersection Project Input

Date	Stakeholder	Concerns / Aspirations	Support	
			Project	Approach
June 5	Cyclist	a. Poor crossing Burrard eastbound on Pacific, providing limited downtown access for cyclists coming from area NW of bridge. b. Accommodate cycle access to Pacific from N/S streets due to steep slope. c. Signage improvements for cyclists. d. Widen cycle track along Hornby to accommodate slope and speed differentials.	Y	N
June 4	Motorist	Not supportive of lane reductions	N	N
June 6	Pedestrian / Motorist	Not supportive of lane reductions	N	N
June 3	??	Not supportive of lane reductions	N	N
June 2	Motorist / Local	Not supportive of lane reductions	N	N
June 2	Cyclist / Motorist	Very supportive	Y	Y
June 2	Resident	Comments not related to project (property tax)	n/a	n/a
June 3	Resident	Upset with timing of engagement	?	?
June 3	Motorist	Not supportive of lane reductions	N	N
June 1	Cyclist	Burrard safe crossing eastbound on Pacific	Y	N
30 May	Cyclist	Suggests closing the curved east/south bound approach from Pacific onto	Y	Y

Date	Stakeholder	Concerns / Aspirations	Support	
		bridge and adding short right-turn-only lane eastbound at the intersection. Would require bikes to pass in front of the stopped cars and stop on red light southbound.		
June 7	Professional Drivers	Frustrated with pedestrians and cyclists	n/a	n/a
June 5	??	Upset over lack of statistics provided at open house to justify modifications. Worried about traffic jams.	?	?
June 8	??	Not supportive of lane reductions	N	N
June 5	Motorist	Suggests putting Pacific under Burrard	Y	N
June 1	Cyclist	<ul style="list-style-type: none"> <li>a. Concerned about congestion caused by northbound turning left and waiting for pedestrian and foot traffic to clear.</li> <li>b. Make Hornby/Pacific intersection a scramble crossing?</li> <li>c. How do plans improve Lion Gate Bridge destine traffic? I.e. still facing the Hornby/Pacific interchange and the Howe/Pacific interchange and the Howe/Beach interchange and the Hornby/Beach interchange.</li> <li>d. Move the Hornby Street bike lane between Pacific and Beach to the West Side of the street?</li> <li>e. Enable safe cyclist traffic on the north-south alley west of Hornby?</li> <li>f. Downtown destine bike traffic encouraged to take Drake to Hornby?</li> </ul>	Y	?
June 2	Cyclist	Safety concerns about bikers on bridge – suggests enforcement of NO PASSING rule.	?	?
June 8	Local Consumer	Concerned about the loss of parking along Burrard	?	N
June 17	Motorist	Not supportive of lane reductions	N	N
June 18	Seastar Resident	Worried about expropriation, frustrated by poor access to residence caused by so many no turn signs and	N	N

Date	Stakeholder	Concerns / Aspirations	Support	
		concerned about hazard to pedestrians caused by speeding cyclists.		
June 17	Seastar Resident	Against proposed bike lane on Pacific	?	N
June 17	Seastar Resident	Against proposed bike lane on Pacific	?	N
June 17	Seastar Resident	Against proposed bike lane on Pacific	?	N
June 10	Motorist	Suggests Pacific pass under Burrard	Y	N
?	Resident	Frustrated with pedestrians and cyclists	Y	?
June 21	Resident	Worried about congestion cause if lane between Hornby and Howe is blocked	Y	N
June 12	Pedestrian	Suggests elevators from sea wall to Burrard Bridge	?	?
June 11	Resident	Show of support	Y	Y
June 7	Resident	Believes northbound cycle lane unnecessary, wants safe crossing of Burrard at Pacific and does not favour loss of vehicle lane and would re-align existing cycle and pedestrian lanes on bridge	Y	N
June 7	Resident / Senior	Frustrated with cyclists	?	?
June 2	Resident / Senior	Not supportive of lane reductions	N	N
June 4	Motorist	Not supportive of lane reductions	N	N
June 5	Motorist	Not supportive of lane reductions	N	N
June 3	Motorist	Not supportive of lane reductions	N	N
June 2	Motorist	Not supportive of lane reductions	N	N
June 1	Resident	Not supportive of lane reductions	N	N
June 4	Resident	Not supportive of lane reductions	N	N
June 4	??	Upset over quality of information provided at open house	?	?
June 2	Motorist	Not supportive of lane reductions	N	N
June 2	Motorist	Not supportive of lane reductions	N	N
June 3	Motorist	Not supportive of lane reductions	N	N
June 3	Motorist / Resident	Not supportive of lane reductions	N	N
June 2	Pedestrian	Wants to make the bridge more of a people place, i.e. seating	Y	Y
June 1	Motorist	Not supportive of lane reductions	Y	N

Date	Stakeholder	Concerns / Aspirations	Support	
June 24	Cyclist	Supports planned safety improvements; wondering whether there will still be a gap in the bike lane between Seymour and Howe	Y	Y
June 24	Seastar Resident	Response to Paul Storer's original response, reiterating original concerns: Worried about expropriation, frustrated by poor access to residence caused by so many no turn signs and concerned about hazard to pedestrians caused by speeding cyclists.	N	N
June 25	Unknown	Transit-friendly infrastructure	Y	N
June 25	Unknown	Converting original 6-lane design to 4 lanes for vehicles is a design based on short-term uses/thinking.	N	N
July 2	Directors Guild of Canada	1. Bridge closures will affect ability to film car commercials but also present unique opportunities for filming unique scenes not otherwise possible. 2. The green paint demarcating cycling zones remains a problem for filming. 3. The proposed suicide fencing will have a major impact on ability to film on the bridge.	Y	N

#### Reviewer Notes

- This is a quantitative analysis.
- The summarized “Concerns / Aspirations” shown above are provided for comparative and analytical purposes only. Details about individual comments should be drawn from the detailed Stakeholder Management Template.
- Assumptions were made about stakeholder group affiliation based upon comments in correspondence.

### Summary of Issues Raised (in order of priority)

Based upon the correspondence received the issues raised about the proposed approach include:

1. Increased congestion due to lane reduction was raised by all motorist participants
2. Loss of property at 1003 Pacific Street and reduced accessibility to that property was raised by all Seastar residents
3. Safe crossing of Burrard at Pacific
4. Increased cycle traffic on Hornby

### Reviewer Observations

1. Capital expenditure to accommodate bike traffic has annoyed many private vehicle commuters.
2. Many private vehicle commuters do not believe that cyclists do not have the right to use roadways.
3. The behavior of many cyclists and even pedestrians creates animosity with vehicle road users and makes it difficult for the City to introduce safety measures.
4. Many motorists were not supportive of the project because of lane loss and the assumed increases in congestion / travel time. Many of them questioned the cycle and pedestrian usage statistics used to justify plans for accommodating these users.

## Survey

D+A assessed the open-ended comments from the project survey administered by the City; these comments are associated with question #7 of the survey. The City analyzed all quantitative survey results. The following is a summary of some of the major themes that emerged from the assessment of the open-ended responses to the survey's question #7; and a full detailed list of the responses has been made available to the City in a separate Excel document.

**Online responses to Question 7:** 1,097 (total number of online respondents: 1,872).

Many respondents used the open-ended text box for question #7 to express their thoughts and opinions about the project as a whole, or specific aspects of it, despite that the question inviting comments specifically on the design of the north intersection. Many respondents seemed to consider this question their only opportunity to provide comments on the project, as the rest of the survey questions were close-ended and none asked for comments in general.

Of the 1,097 responses<sup>5</sup> to the question, 229 (21%) included specific comments or recommendations for the north intersection, which was the intention of the question. The majority of these comments are well-informed and constructive.

Theme	Number of responses
<b>Design concerns or recommendations</b>	<b>229</b>
Concerned about removal of car lane/insufficient attention to driver needs/will increase congestion	302
General approval	241
General disapproval	185
Suggest flawed consultation process or information provided	83
Complaints about dangerous cyclists or giving priority to cyclists	80
Waste of money/cost concerns	66
Concerns about crossing Burrard	49
Support east side pedestrian access	42
Don't support east side pedestrian access	39
Supports addition of bike lane / improvements for cyclists	34
Concern / ideas about aesthetics	20
General safety concerns	16
Concerns / suggestions for approach to construction	14
Seastar building resident concerns	12

Of the 229 comments focusing on the design of the north intersection, many are quite specific and represent possible added value to the Burrard Bridge project if able to be assessed and possibly integrated into the design. Some of these comments included:

- The suggestion to make bike lanes seasonal; use barriers to separate bike lanes during the months when ridership is high, and remove the barriers for the winter and give the lane to vehicles.
- Many echoes of concerns expressed in other forums over the safety of crossing Burrard on Pacific by bicycle.
- Observations about potential “downstream” impacts to bike and vehicle traffic, mostly as relates to activity on Hornby, but other observations too.
- Recommendations for additional or clearer signage to guide all forms of transport.
- Suggestions for a pedestrian / cyclist overpass for Burrard at Pacific.
- Suggestions for a dedicated pedestrian / cyclist bridge over False Creek.

<sup>5</sup> Since many respondents commented on more than one aspect of the project, a single response can be associated with more than one theme, and therefore the total number of responses in this table will add up to more than the total number of responses to the question.

In addition to comments specifically about the intersection, a few other categories of concerns included unique comments which may not have been previously identified.

- One concern that was mentioned often (coded as “Concerns about crossing Burrard”) was regarding the tendency of cyclists to time their descent down Burrard street hill on to the bridge to attempt to coincide with the light turning green. This does not always work and has resulted in dangerous situations if cyclists fail to time themselves properly and build up too much speed to stop, or if cars are also in the process of making illegal right turns on to Pacific, or as motorists advance their green going east or west through those intersections.
- Under the category “Suggest flawed consultation process or information provided” there are several comments about people not believing the need for these changes based upon the information provided, or doubting the accuracy of the information provided. The other complaints were about rushed process, which led several people to doubt the legitimacy of the overall process and willingness of Council or ability of staff to modify project design at this stage of development.
- Use of the bridge by emergency vehicles accessing St. Paul’s Hospital also came up several times.
- There were several comments from seniors who believe they are being discriminated against. They are not against cyclists; people with mobility issues have little choice but to rely on their vehicle to get around. This sentiment also applies to people who are disabled or professional drivers. This also relates to concerns about moving the bus stop.
- Vision and Council were criticized around 40 – 50 times for either overly favouring bikes (over cars) or for bad public engagement (relating to timing), or for wasting money.
- In addition, one commenter stated that the current addition of the bike lanes goes against recommendations from a 2005 report by the City to the Standing Committee on Transportation and Traffic.

A full list of all of the responses to question #7 according to topic is available in the companion Excel document referred to above.



## Appendix E – Media Coverage

*\*This is not meant to be an exhaustive list of press coverage, but a sampling of coverage from the major outlets.*

**Global News, June 1:** *City of Vancouver considers removing another lane on Burrard Bridge.* No subtitle. <http://globalnews.ca/news/2028760/city-of-vancouver-considering-removing-another-lane-on-burrard-bridge/>

**CBC News, June 1:** *Burrard Bridge repairs could include improved bike lanes and sidewalks.* Subtitle: City plans to widen the north end of the bridge to ease bottleneck at high-collision intersection. <http://www.cbc.ca/news/canada/british-columbia/burrard-bridge-repairs-could-include-improved-bike-lanes-and-sidewalks-1.3095163>

**Vancouver Sun, June 1 (blog – The Vancouver Sun Now):** *Proposed Burrard Bridge upgrade would eliminate vehicle lane in favour of pedestrian lane.* No subtitle. <http://blogs.vancouversun.com/2015/06/01/proposed-burrard-bridge-upgrade-would-eliminate-vehicle-lane-in-favour-of-pedestrian-lane/>

**The Province, June 1:** *Reducing Burrard Bridge's vehicle lanes will improve traffic flow, city says.* No subtitle. <http://www.theprovince.com/news/Reducing+Burrard+Bridge+vehicle+lanes+will+improve+traffic+flow+city+says/11100442/story.html>

**The Province, June 1:** *Video: Proposed pedestrian upgrades to the Burrard Bridge.* Subtitle: “Is it going to be carmedegdon on the Burrard Street Bridge once the city reduces the lane numbers down to four mid-span?” <http://www.theprovince.com/Video+Proposed+pedestrian+upgrades+Burrard+Bridge/11100276/story.html>

**Metro News, June 1:** *Burrard Bridge \$30-m renos thrill pedestrians, concern NPA councilor.* No subtitle. <http://metronews.ca/news/vancouver/1384422/burrard-bridge-30-m-renos-thrill-pedestrians-concern-npa-councillor/>

**CTV News Vancouver, June 1:** *City unveils plan to revamp Burrard Street Bridge.* No subtitle. <http://bc.ctvnews.ca/city-unveils-plan-to-revamp-burrard-street-bridge-1.2401125>

**Vancouver Courier, June 1:** *Vancouver calls for \$30 million fix to Burrard Bridge.* Subtitle: Upgrades involve removing one vehicle lane. <http://www.vancourier.com/news/vancouver-calls-for-30-million-fix-to-burrard-bridge-1.1954033>

**The Province, June 1 – Letter to the Editor:** *Quit messing with the Burrard Bridge.*

<http://blogs.theprovince.com/2015/06/01/letters-burrard-bridge-vision-fifa-surrey-six-killers-salmon-farms/>

**The Province, June 1 – Letter to the Editor:** *City made a mess of bridge.*

<http://blogs.theprovince.com/2015/06/01/letters-burrard-bridge-vision-fifa-surrey-six-killers-salmon-farms/>

**The Province, June 2 – Letter to the Editor:** *All the idling cars isn't good.*

<http://blogs.theprovince.com/2015/06/02/letters-justin-trudeau-stephen-harper-translink-plebiscite-cyclists-lng-burrard-bridge-rifles/>

**Vancouver Sun, June 2:** *Burrard Bridge makeover to see one northbound traffic lane removed.*

Subtitle: “The \$30-million project will include a redesign to the intersection at Pacific and Burrard and at the same time will improve access for cars, pedestrians and cyclists”.

<http://www.vancouversun.com/Burrard+Bridge+makeover+northbound+traffic+lane+removed/11099792/story.html>

**Vancouver Sun (blog – Civic Lee Speaking), June 2:** *Will the city shut Burrard Bridge entirely during reconstruction?* <http://blogs.vancouversun.com/2015/06/02/will-the-city-shut-burrard-bridge-entirely-during-reconstruction/>

**Metro News, June 2:** *Burrard Bridge could be closed to everyone during construction.* No subtitle.

<http://metronews.ca/news/vancouver/1385493/burrard-bridge-could-be-closed-to-everyone-during-construction/>

**Metro News, June 2:** *It's about time for a safer, easier crossing — for all Burrard Bridge travelers.*

No subtitle. <http://metronews.ca/voices/your-ride-vancouver/1384587/its-not-too-late-for-bike-lanes-on-vancouvers-burrard-bridge/>

**The Province, June 3 – Letter to the Editor:** *New costs needed to fix bike-lane mess created by*

*Vision on Burrard Bridge.* <http://blogs.theprovince.com/2015/06/03/letters-burrard-bridge-bike-lanes-city-claims-lane-splitting-dogs-omar-khadr-communism-victims/>

**The Province, June 4 – Letter to the Editor:** *Who are they Kidding?*

<http://blogs.theprovince.com/2015/06/04/letters-kids-play-oil-lng-fuel-exports-guns-burrard-bridge-translink-pattullo-bridge/>

**Global News, June 6:** *City of Vancouver holds public consultation over proposed changes to*

*Burrard Bridge.* No subtitle. <http://globalnews.ca/news/2040394/city-of-vancouver-holds-public-consultation-over-proposed-changes-to-burrard-bridge/>

**AM 730 Traffic News, June 1:** *Vancouver Mulls Removing Another Vehicle Lane on Burrard Bridge.*  
No subtitle. <http://www.am730.ca/syn/112/78652/78652>

## Appendix F – Direct Submissions

Your Cycling Connection



June 22<sup>nd</sup>, 2015

Dale Bracewell, City of Vancouver

Paul Storer, City of Vancouver

### HUB Cycling Submission re Burrard and Pacific Intersection Improvements

HUB Cycling is a charitable organization that works to make cycling better through education, events and collaboration. We are Metro Vancouver's leader in making cycling an attractive choice for everyone.

We would like to take this opportunity to provide input to the Public Consultation process relating to the Burrard Bridge and Burrard and Pacific Intersection Improvements.

Our comments are based on the display boards from the Open Houses, the detailed maps posted on line, and the presentation City staff (Paul Storer) made to HUB Cycling on June 16, 2015.

### Background

Burrard Bridge is an important cycling and pedestrian link in the Vancouver and regional cycling networks, with rapidly increasing cycling volumes. The current bicycle lanes have made the bridge much safer for crossing, and the recent improvements to the Burrard and Cornwall intersection provide significant improvements for all users in terms of connections at the south end.

We support the proposed and much needed improvements to the north end of Burrard Bridge as well as the re-allocation of the motor vehicle traffic lane to active transportation on the bridge itself.

### Specific feedback

- We consider it important to restore the east sidewalk to pedestrian use. There have been conflicts between pedestrians and cyclists on this cycling path, and it makes sense to separate pedestrians and people on bicycles given the differing travel speeds.
- The new cycling path on the east side (northbound) will be wider, improving safety for users and allowing overtaking on the ascent. This is a positive move.
- Extending cycling connections northward on Burrard, for both northbound and southbound cyclists, will be important for improved safety, and will likely

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encourage greater use by all ages and abilities as it expands the network.

- The elimination of the motor vehicle slip lanes onto and off of Pacific will be a major step forward for collision reduction.
- We are very concerned about the lack of consideration of any bicycle traffic travelling eastbound on Pacific, at Burrard. Bicycle traffic has not been accommodated in the design presented. It is not reasonable to expect people to walk their bicycles across three pedestrian crosswalks simply to continue eastbound, and the two motor vehicle turn lanes onto the bridge will create a conflict zone as people on bikes look for a way to continue along Pacific and attempt to cross those turn lanes. Ideally, there would be a protected eastbound bicycle lane starting at Thurlow, between the vehicle through lane and the right turn lanes. If this cannot be accommodated due to the roadway width, we strongly urge you to include a bike box (painted green and signed) at the intersection, with access from the bicycle path where it turns right from Pacific on to the bridge. Signals should specifically address bicycles, within the planned signal phasing. Without some type of accommodation for eastbound cyclists on Pacific, we consider this design to be incomplete and potentially dangerous.
- The inclusion of a separated bicycle lane eastbound on Pacific, between Hornby and Howe, is a significant improvement and addresses a long-standing danger zone. We would like to see a similar protected lane on Pacific westbound in this same block. Realizing that new development is pending on the north side of Pacific, we understand the inclusion of a painted lane, but request that flexible plastic bollards be used to delineate this lane instead of paint only. While we understand the need to define and limit the scope of this project, the lack of any westbound access along Pacific from Yaletown to reach this new infrastructure is concerning. The westbound bicycle lane on Pacific currently ends at Seymour, leaving a gap between Seymour and Howe. This two-block gap will make it uncomfortable for many people who want cycling access to Burrard and the bridge from Yaletown. We realize that there may not be room to build separated lanes in this stretch, particularly until the on and off ramps to the Granville Bridge are addressed. However, lane markings, green paint, and signage would partially address this shortcoming.
- For people on bikes travelling both eastbound and westbound through the Burrard and Pacific intersection and not requiring access to the bridge, an alternate bypass route along Beach Ave should be signposted and promoted, particularly during the construction phase. For westbound traffic this could be at Homer or Richards; for eastbound traffic this could be at Broughton.



#### Additional feedback

- While we understand that the detailed design has not yet been completed, we note that the new bicycle lanes on the bridge itself will include transitions both northbound and southbound that involve jogs and grade changes. These transitions will require design attention so as to mitigate the risks to users. The jogs should not be abrupt (as shown on the preliminary design drawings), and the ramps should be gradual.
- We hope that we will have an opportunity to see and comment on the proposed designs and locations of barriers between the bike lanes and motorized traffic lanes throughout the improvement zone.
- We understand the logic of coordinating these improvements with planned work to Burrard Street, involving water and sewer construction. We note that Burrard Street, from 1<sup>st</sup> to 16<sup>th</sup>, will be repaved, with sidewalks addressed. We understand that no bicycle infrastructure is currently being included in this major work to Burrard Street. When the plans are being made for Burrard Street work, we encourage you to consider all modes of transportation, including people on bicycles. It is a missed opportunity to rebuild a major street and put it back without any improvements to bicycle infrastructure.

#### Conclusion

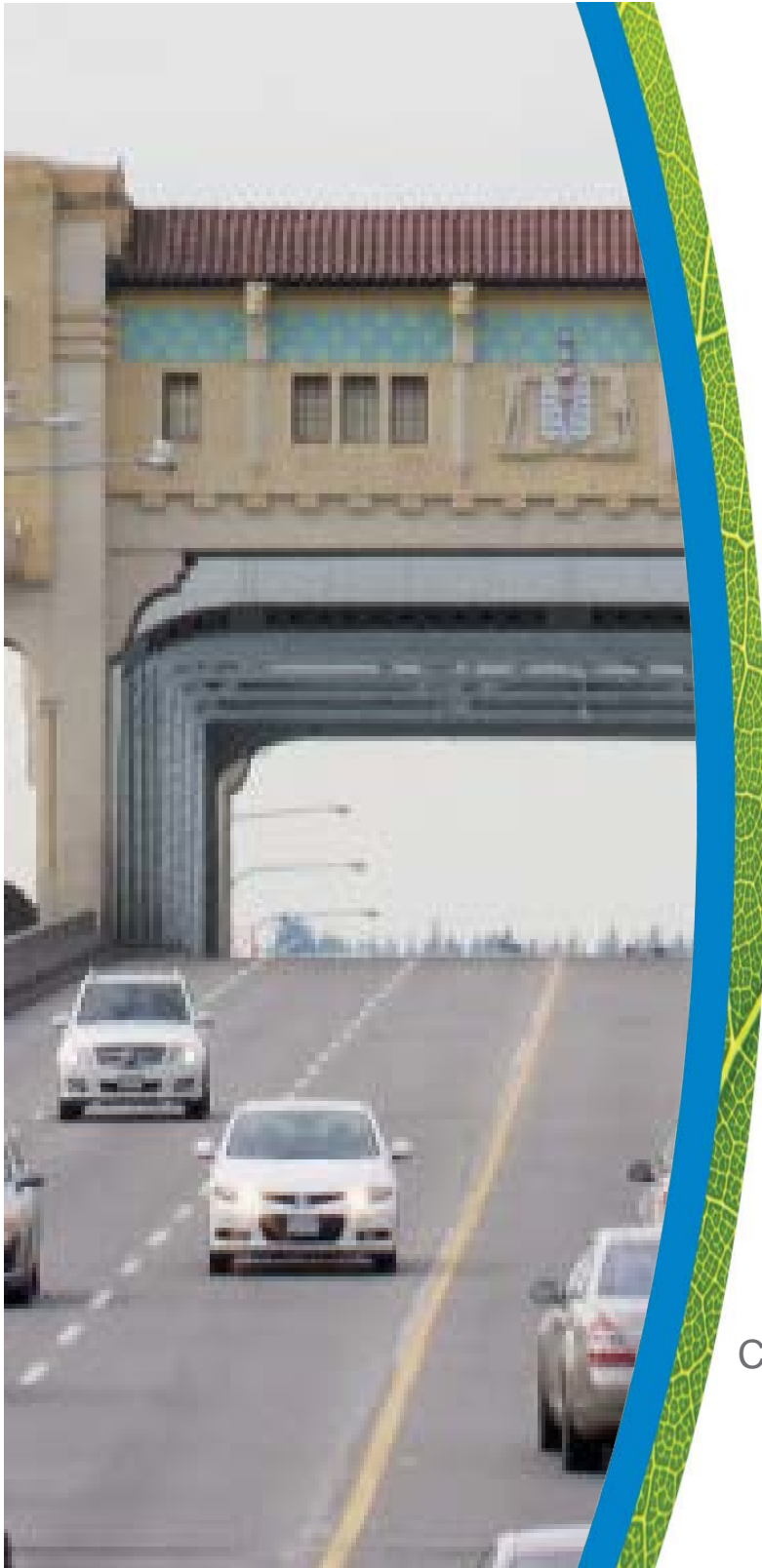
HUB Cycling supports the goal of increasing active transportation modes, while addressing the serious safety concerns for all modes at this intersection. We are confident that the proposed bridge and intersection design, with consideration of the above points, will be another major step forward in helping Vancouver achieve its goals.

HUB Cycling would be pleased to discuss any of our recommendations further. Please be in touch with Jeff Leigh at the HUB Vancouver UBC Committee at [vancouver@bikehub.ca](mailto:vancouver@bikehub.ca).

Thank you for the opportunity to engage in this process.

Jeff Leigh  
Co-Chair, Vancouver UBC Committee  
HUB Cycling

Lisa Slakov  
Co-Chair, Vancouver UBC Committee  
HUB Cycling



# **BURRARD BRIDGE & PACIFIC STREET UPGRADE**

Consultation Summary  
June 2015





## Consultation Overview



### Background:

- The City of Vancouver is planning to undertake necessary structural repairs and maintenance on the Burrard Bridge in 2016 and 2017. Making the proposed changes requires converting a travel lane on the main span of the bridge and widening the north end to maintain traffic flow. The City consulted with the public to gather feedback on the design of the upgrades and to gauge support for traffic restrictions on the bridge during the construction.
- The questionnaire ran from June 1 to 23, 2015.
- A link to the questionnaire was posted on the project page (City of Vancouver website) and paper copies of the questionnaire were available at the open house events for this project.
- A total of 1,823 completed surveys were collected.

### Who did we hear from?

- More men than women completed the questionnaire (57% vs. 39%).
- There was representation across all age groups, although representation was smaller among those aged 20-29 (7%) and 30-39 (14%) as well as those aged 70 or older (11%).
- Based on respondents' home postal codes, roughly one-quarter (23%) of respondents were residents of neighbourhoods surrounding the Burrard Bridge and the Burrard and Pacific Street intersection (those with home postal codes beginning with V6Z, V6E or V6J). Most other respondents were from other areas of Vancouver and a small number were from outside of the city (e.g. Burnaby, Surrey, etc.)





## Summary of Results



### Current Usage of Burrard Bridge – Crossing by car is most common mode of transport



**52%** of respondents cross the Burrard Bridge by car at least a few times per week during the warm, sunny months and **54%** cross the bridge by car in the cooler, rainy months.

### Perception of Safety of Burrard/Pacific Street Intersection



**25%** say they feel somewhat or very unsafe travelling through the Burrard/Pacific intersection when travelling by bicycle;  
**21%** feel unsafe when travelling by car;  
**17%** feel unsafe when walking through the Burrard/Pacific intersection.

### Support for Measures to Shorten Construction Period

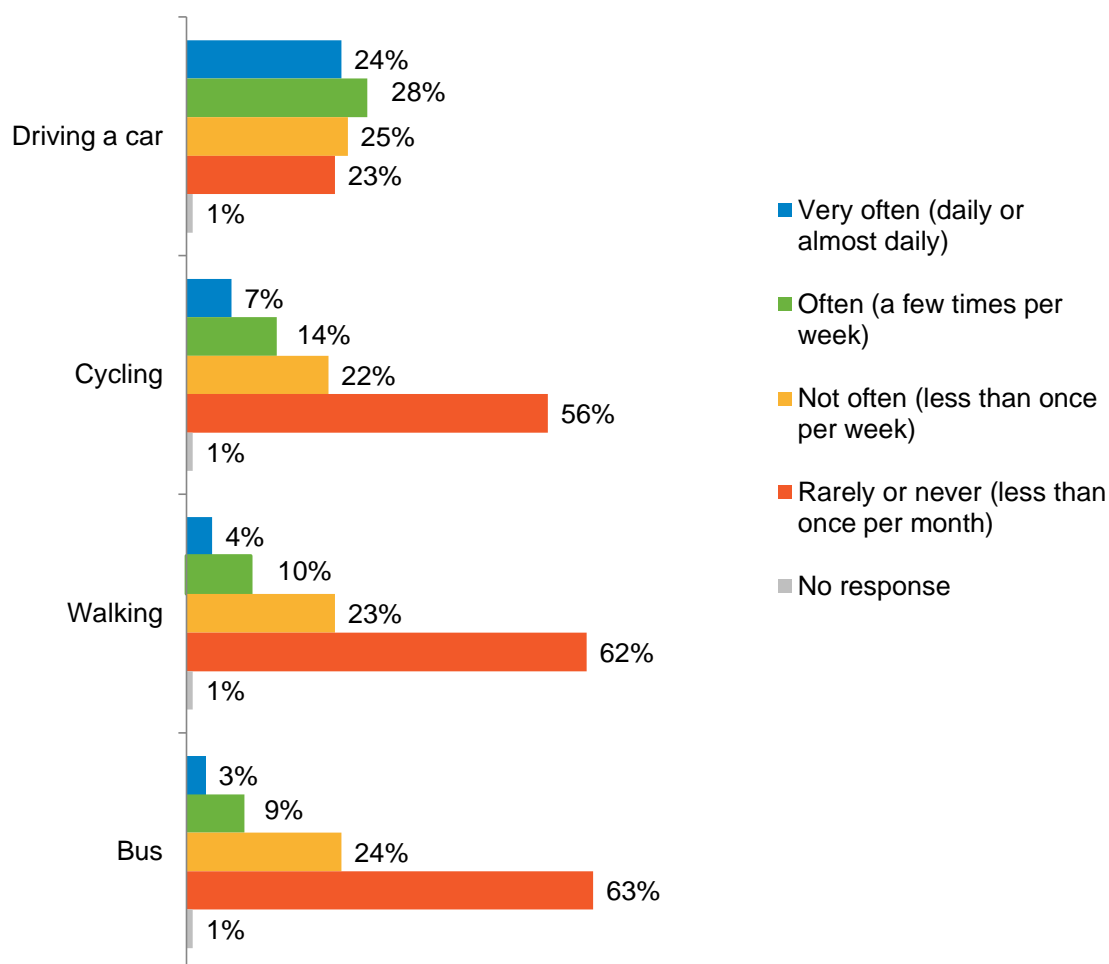


**66%** support evening and/or Sunday construction if it meant a shorter construction period;  
**56%** support no (or few) limits on construction hours;  
**35%** support closing more traffic lanes (or restricting all bridge traffic).



## QUESTIONNAIRE RESULTS

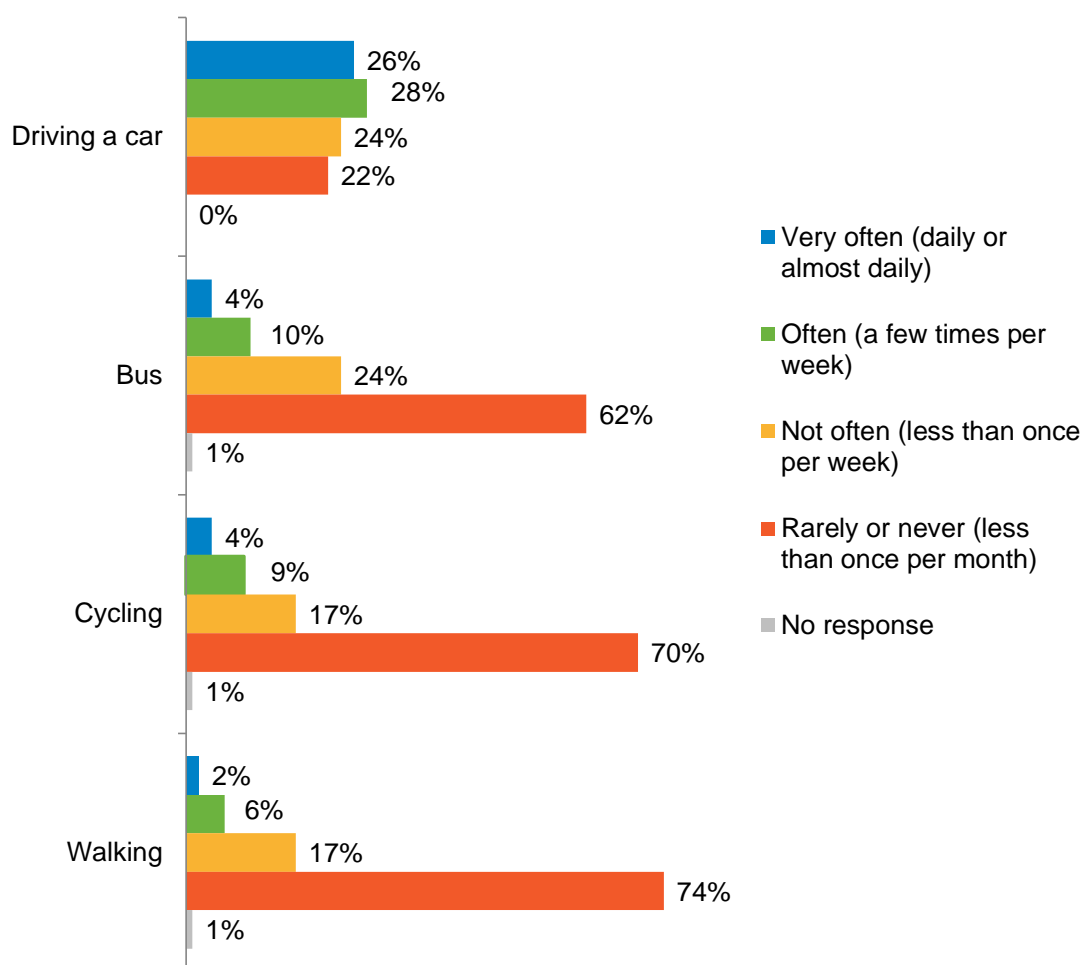
# Frequency of use of Burrard Bridge by Mode of Transport During Warm/Sunny Months



Base: All respondents (1,823)

*For each of the following modes of transport, please indicate how frequently you use the Burrard Bridge in the warm/sunny months.*

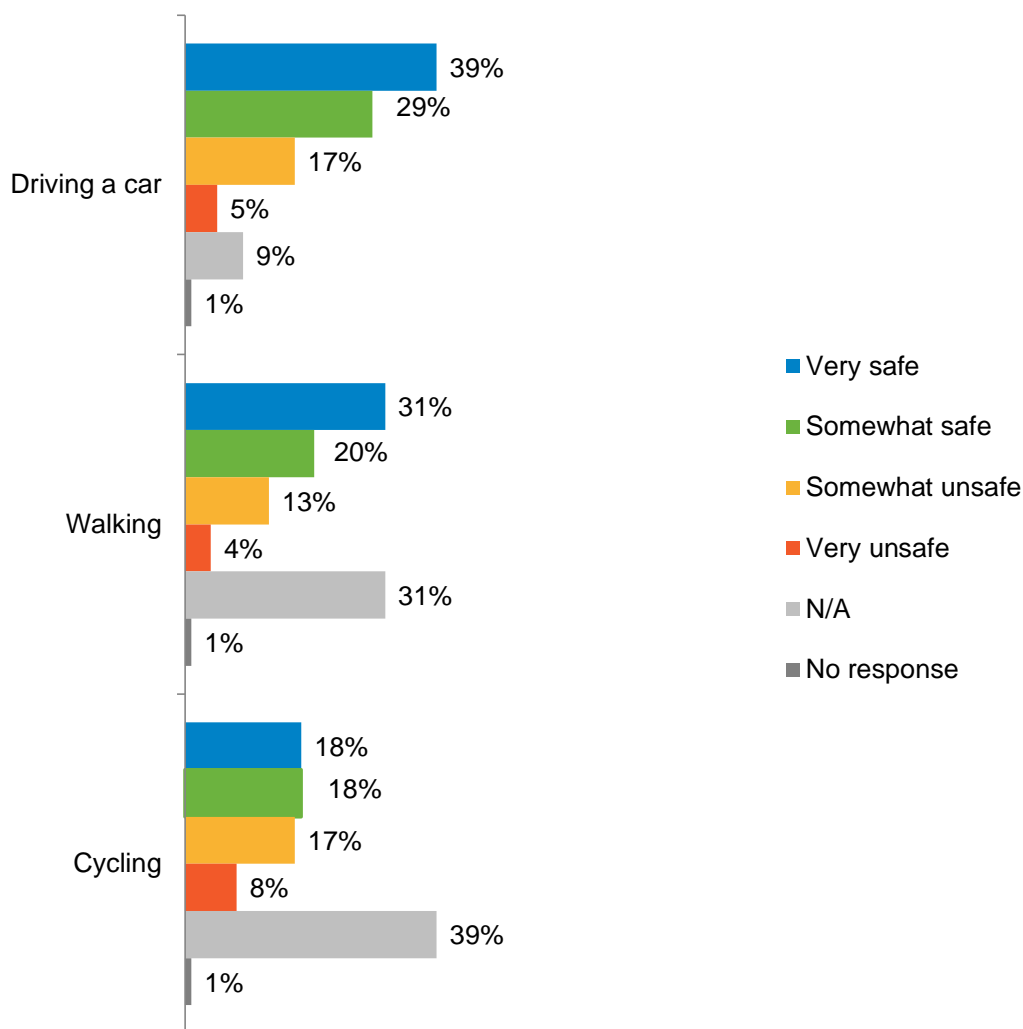
## Frequency of use of Burrard Bridge by Mode of Transport During Cool/Rainy Months



Base: All respondents (1,823)

*For each of the following modes of transport, please indicate how frequently you use the Burrard Bridge in the cool/rainy months.*

# Feeling of Safety on Burrard Bridge by Mode of Transport

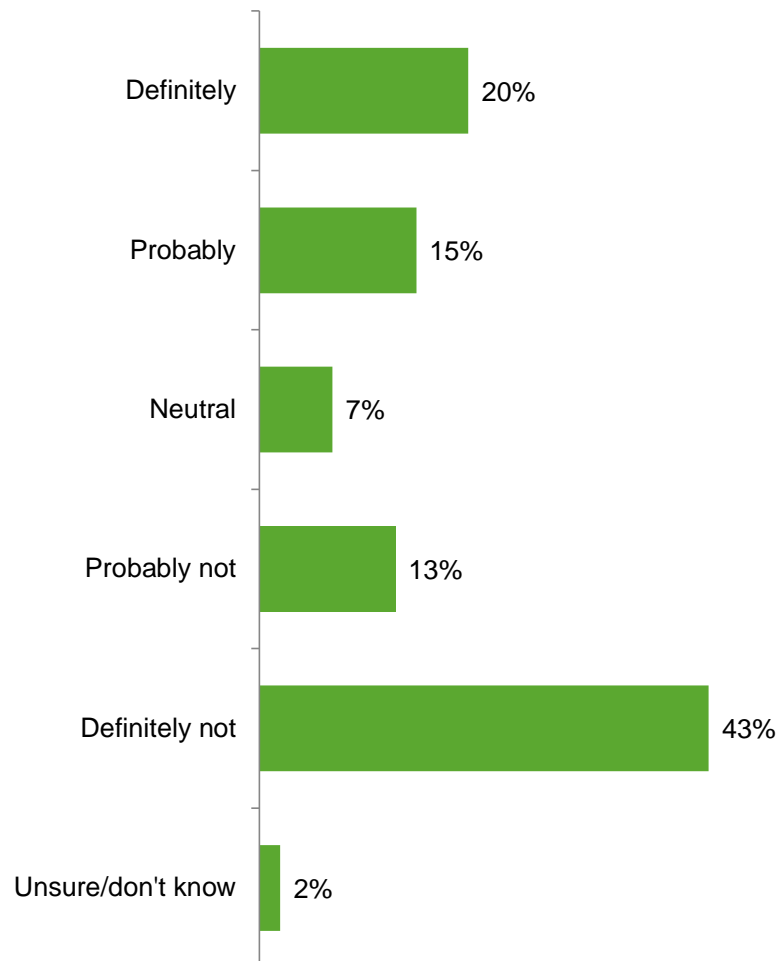


Base: All respondents (1,823)

*How safe do you feel travelling through the Burrard/Pacific intersection while using the following modes of transportation. If you do not use one of the following modes of transportation, please select "N/A".*



## Support for Traffic Lane Closures



**Base: All respondents (1,823)**

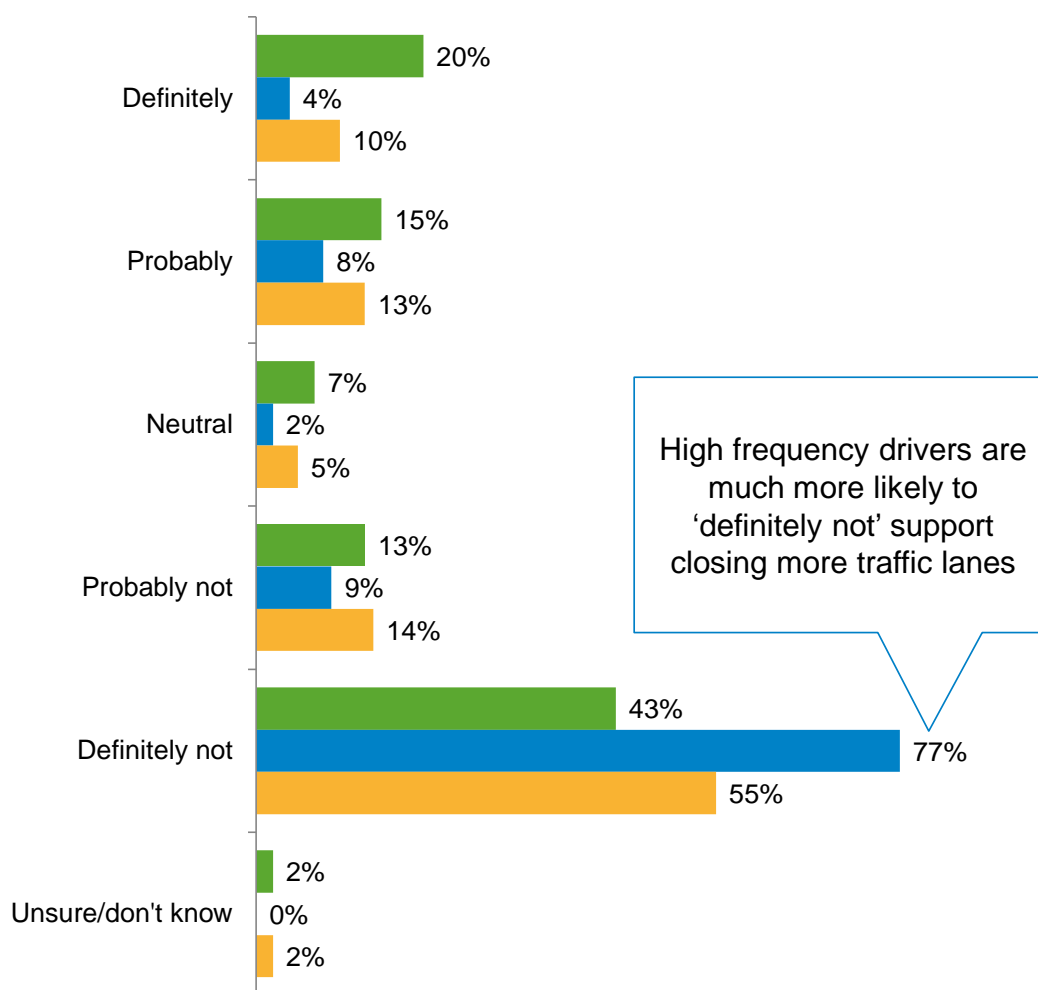
***Would you support closing more traffic lanes (or restricting all bridge traffic) for substantial periods if it meant a shorter construction period?***



## Support for Traffic Lane Closures: Among Frequent Drivers



■ All respondents ■ Drive very often (daily or almost daily) ■ Drive often (a few times per week)

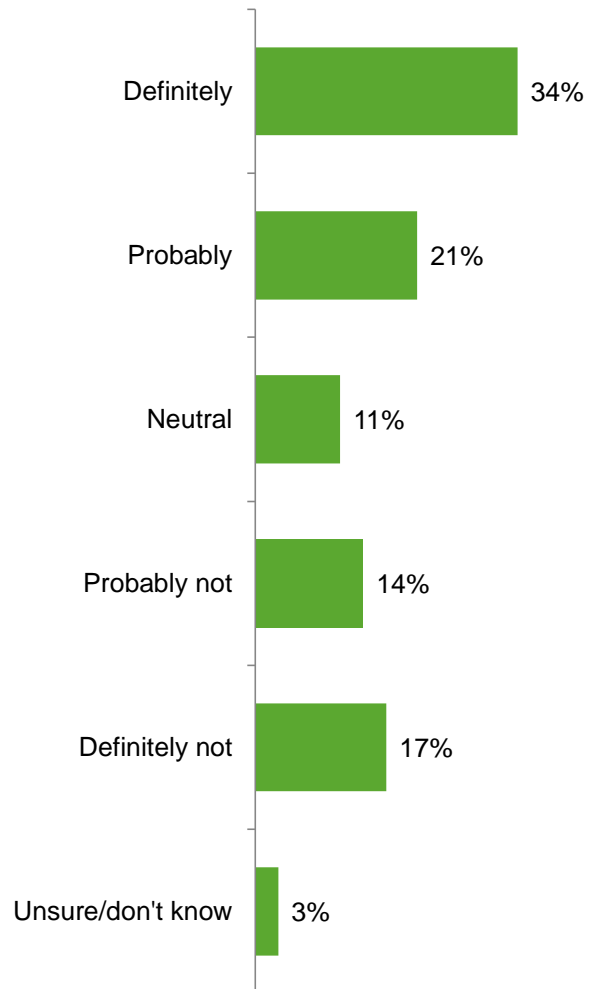


Base: Respondents who drive a car across the Burrard Bridge very often or often (933)

*Would you support closing more traffic lanes (or restricting all bridge traffic) for substantial periods if it meant a shorter construction period?*



## Support for Traffic Lane Closures: Among Non-Primary Drivers



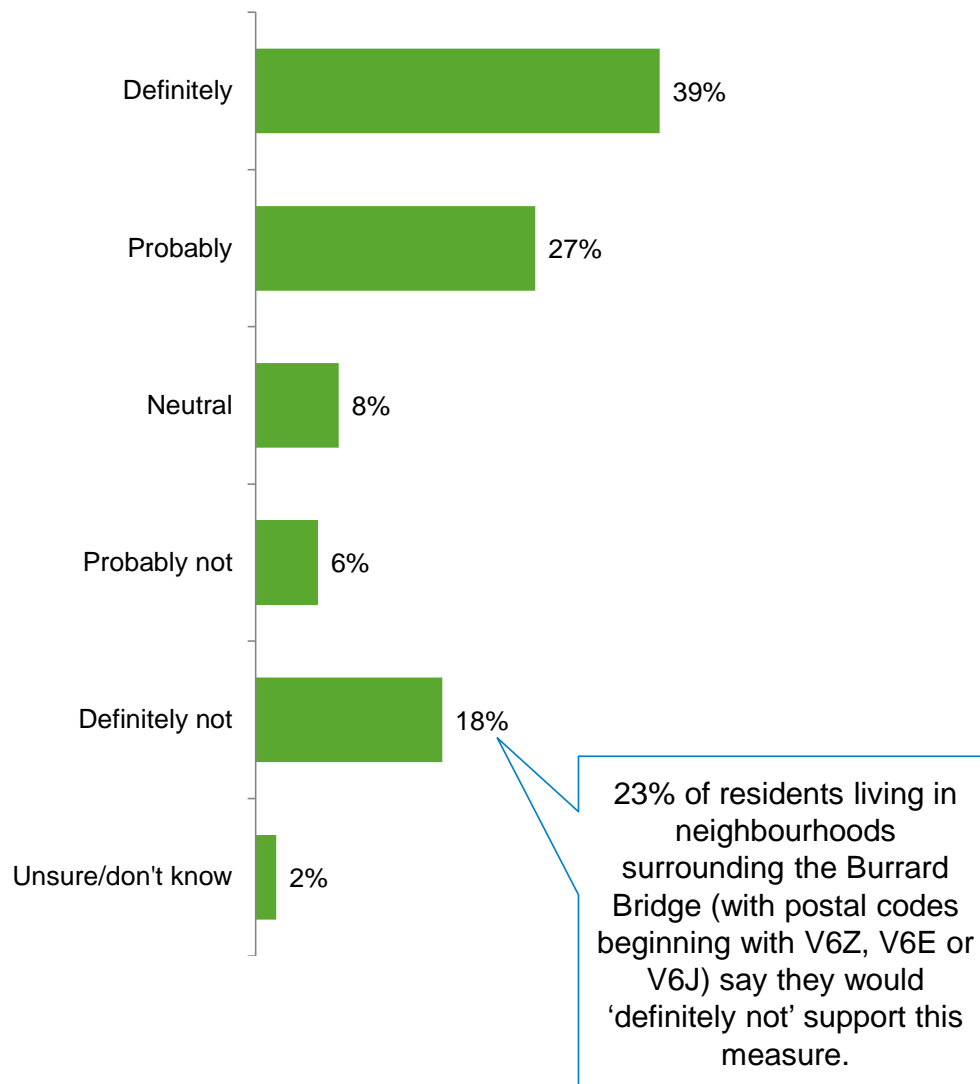
Base: Respondents who are not primary drivers across the Burrard Bridge (defined as all respondents minus those who drive a car across the bridge “very often” or “often” during the warm/sunny or cooler/rainy months)(858)

*Would you support closing more traffic lanes (or restricting all bridge traffic) for substantial periods if it meant a shorter construction period?*





## Support for Evening and/or Sunday Construction Work

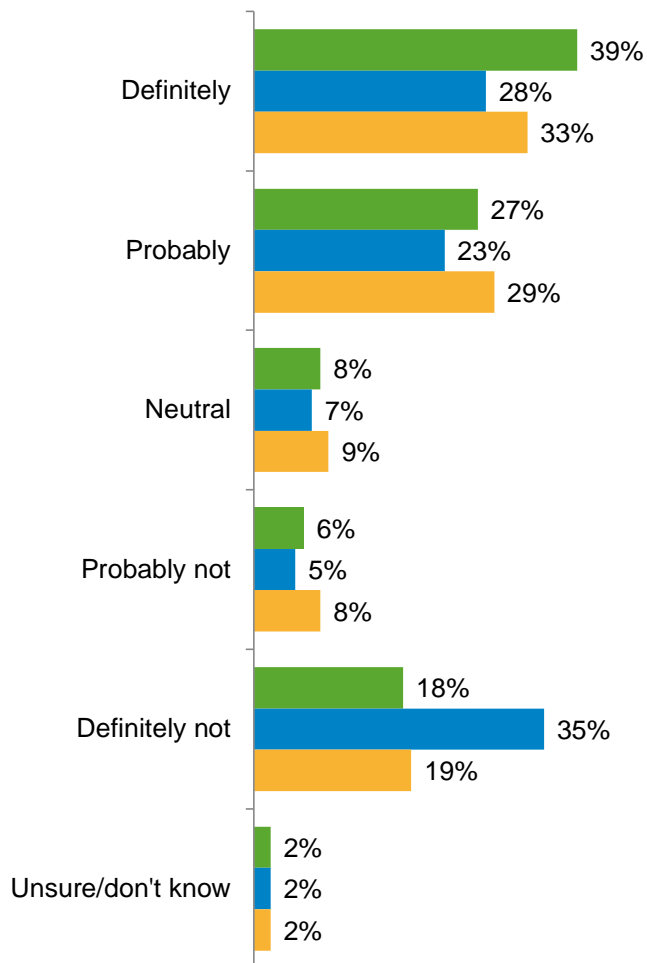


Base: All respondents (1,823)

*Would you support evening and/or Sunday construction work if it meant a shorter construction period?*

## Support for Evening and/or Sunday Construction Work: Among Frequent Drivers

■ All respondents ■ Drive very often (daily or almost daily) ■ Drive often (a few times per week)

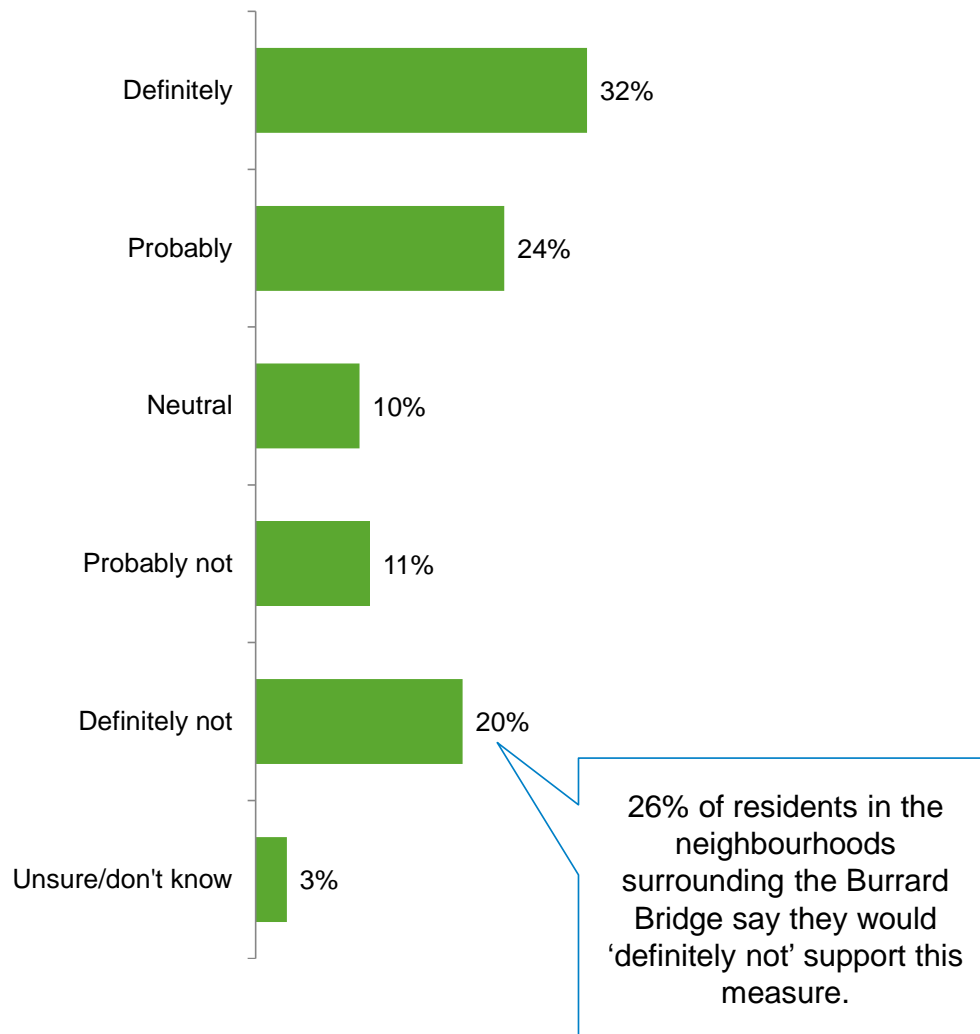


Base: Respondents who drive a car across the Burrard Bridge very often or often (933)

*Would you support evening and/or Sunday construction work if it meant a shorter construction period?*



## Support for No or Few Limits on Construction Hours

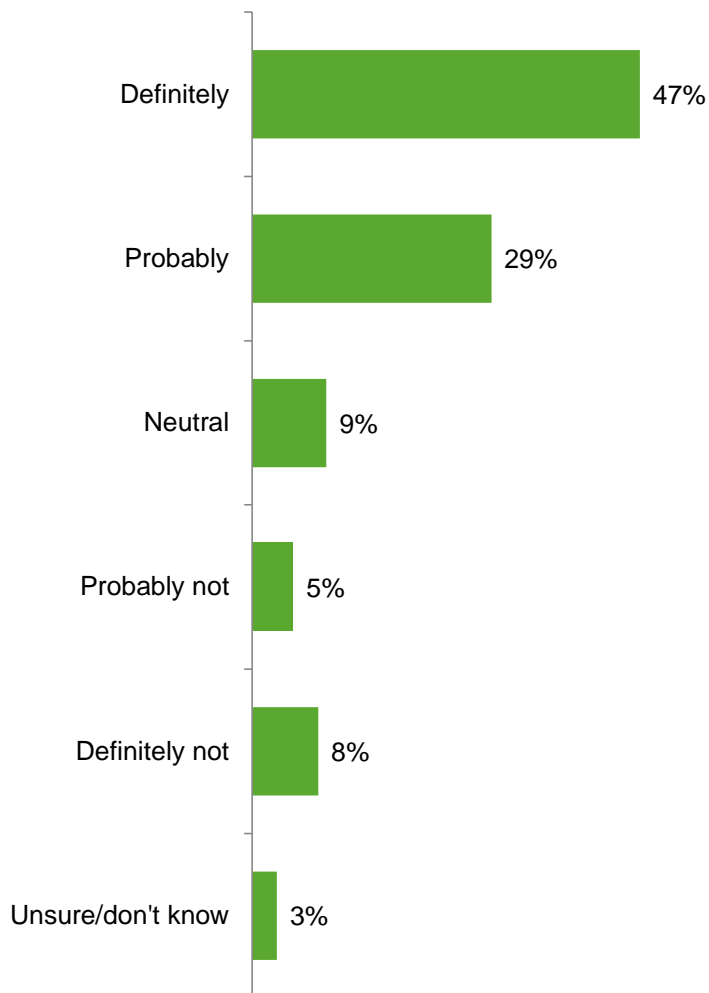


Base: All respondents (1,823)

*Would you support no (or few) limits on construction hours (e.g. regular overnight work) if it meant a shorter construction period?*



## Support for Evening and/or Sunday Construction Work: Among Non-Primary Drivers

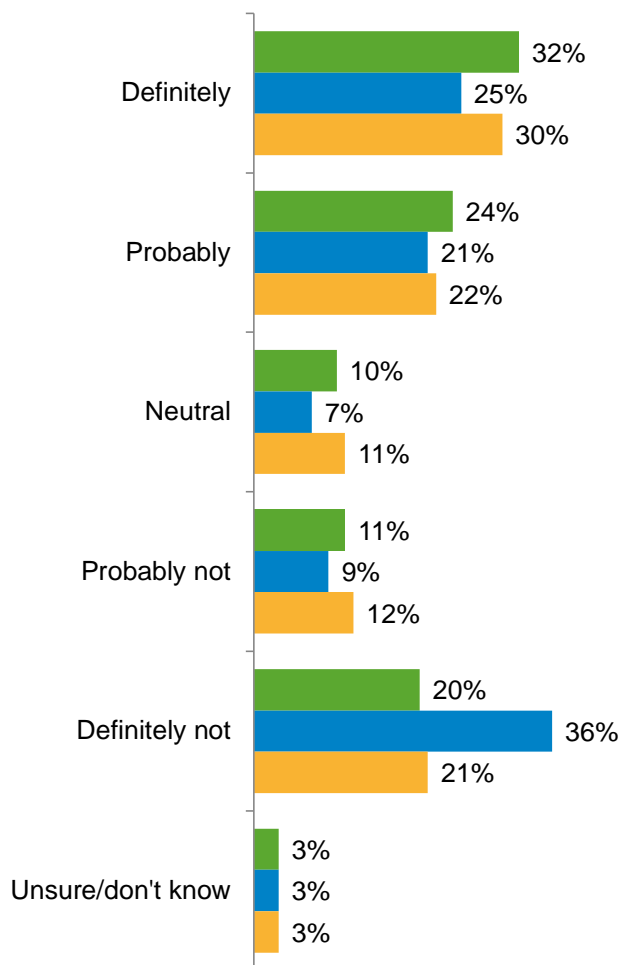


**Base:** Respondents who are not primary drivers across the Burrard Bridge (defined as all respondents minus those who drive a car across the bridge “very often” or “often” during the warm/sunny or cooler/rainy months)(858)

*Would you support evening and/or Sunday construction work if it meant a shorter construction period?*

## Support for No or Few Limits on Construction Hours: Among Frequent Drivers

■ All respondents ■ Drive very often (daily or almost daily) ■ Drive often (a few times per week)

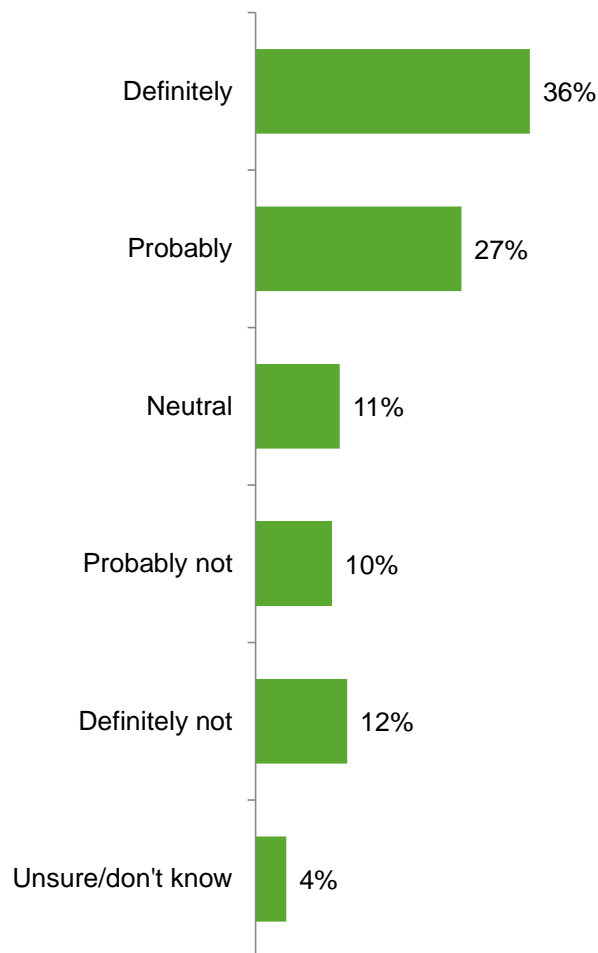


**Base: Respondents who drive a car across the Burrard Bridge very often or often (933)**

*Would you support no (or few) limits on construction hours (e.g. regular overnight work) if it meant a shorter construction period?*



## Support for No or Few Limits on Construction Hours: Among Non-Primary Drivers

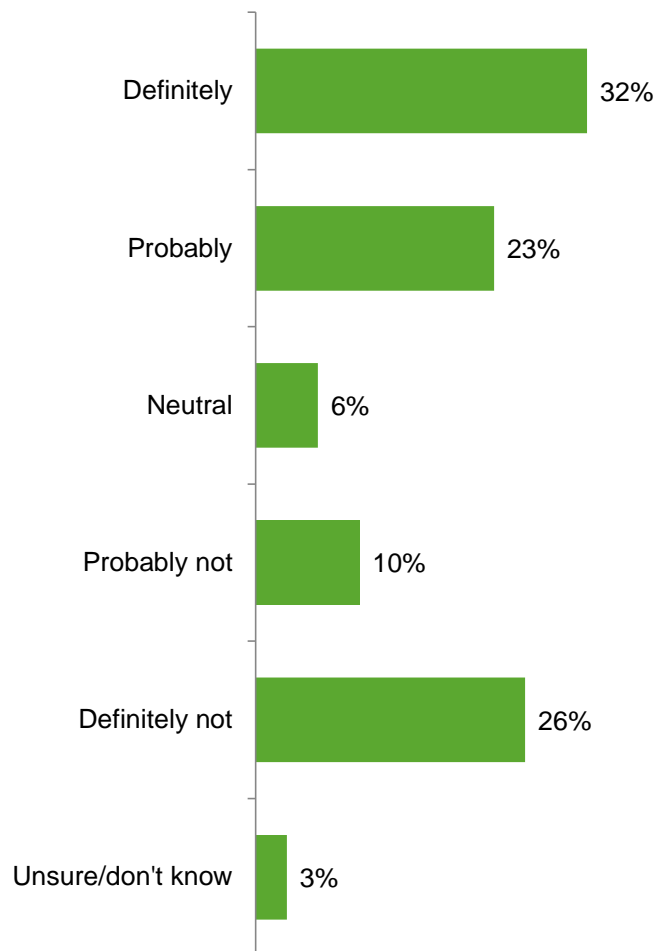


**Base:** Respondents who are not primary drivers across the Burrard Bridge (defined as all respondents minus those who drive a car across the bridge “very often” or “often” during the warm/sunny or cooler/rainy months)(858)

*Would you support no (or few) limits on construction hours (e.g. regular overnight work) if it meant a shorter construction period?*



## Support for No or Few Limits on Construction Hours: Among residents surrounding Burrard Bridge

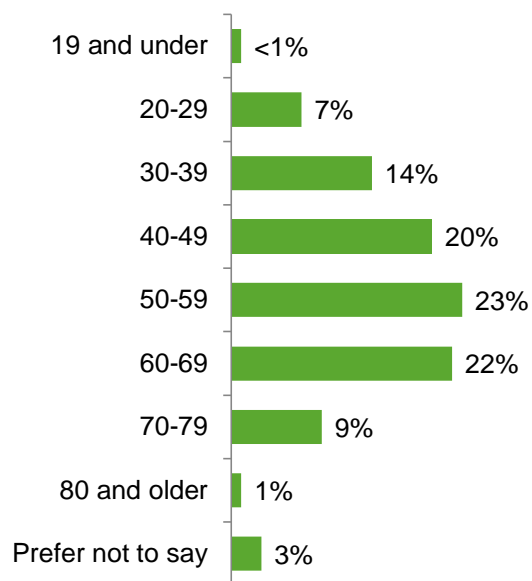
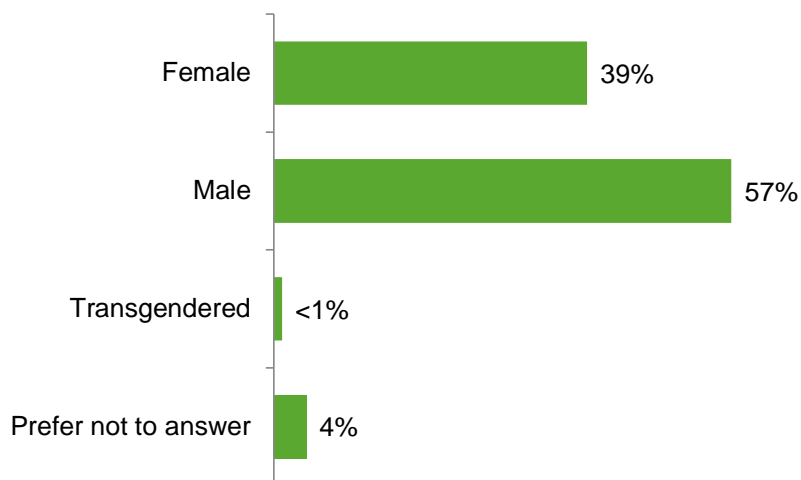


**Base:** Residents living in neighbourhoods surrounding the Burrard Bridge (with home postal codes beginning with V6E, V6J or V6Z (439)

*Would you support no (or few) limits on construction hours (e.g. regular overnight work) if it meant a shorter construction period?*



## Demographics



**Base: All respondents (1,823)**

*Do you identify as...*

*What age category do you fall in?*