

# DRAKE STREET UPGRADES

Public & Stakeholder Engagement Summary  
Phase 2 | 2019 - 2020



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# Drake Street Upgrade

## Phase 2 Highlights

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The City of Vancouver conducted a two-phase engagement process on the Drake Street to provide new walking, rolling, and cycling connection. This report summarizes feedback from the second phase of engagement.

The summary from previous phase of engagement is shared online at [vancouver.ca/drake-street-upgrades](https://vancouver.ca/drake-street-upgrades).

### Project overview

The City of Vancouver is planning upgrades along Drake Street from Hornby St. to Pacific St. These changes would:

- Improve safety, comfort and accessibility for people of all ages and abilities to walk, roll and cycle
- Fill a major gap in the cycling network, connecting the West End to Yaletown, and linking existing and future routes on Burnaby, Hornby, and Richards Streets, as well as the proposed future Granville Bridge Connector
- Maintain access for residents and businesses for all modes of transportation
- Provide more street trees and improve the ability of the street to manage rainwater

### Coordination with Granville Bridge Connector- A Phased Implementation Approach

As staff have reviewed more detailed information on cost and refined an integrated approach to construction with the Granville Bridge Connector and loops replacement, an interim concept has been developed for Drake Street and some midblock design features will be deferred to the long-term concept. This integrated approach and phasing will be further outlined in a report to Council in fall 2020 and is being noted in this summary as it relates to landscaping and green rainwater infrastructure components of the project.

A median with paint and planters would be installed as part of an interim design to reduce initial timeline and cost. Planters would provide interim landscaping features while street trees and green infrastructure will be incorporated into the long-term concept for Drake St.

Drake St is an essential component to the combined project, filling a major east-west gap in the City's downtown cycling network and providing onward connections for the Granville Connector.



## Existing Conditions on Drake Street

Uncomfortable Mixed Traffic



Confusing Turns



Discontinuous Routes



Difficult Connections to Granville Bridge



## Potential Improvements

Improved Streetscape



Protected Bike Lane



Protected Intersections



Smooth Connection to Granville Bridge



Loading Areas



Integration with Public Bike Share



## Engagement Approach

Public and stakeholder engagement took place from **spring 2019 to spring 2020**. This approach builds off the earlier public and stakeholder engagement on an east-west route in 2012 as part of the Comox-Helmecken Greenway project. The work informed, ongoing design efforts and was structured around a two-phase public engagement process including open houses, targeted discussions with local businesses, resident associations, and other stakeholders, and surveys for the broader public to share their feedback and concerns.

In **Phase 1 (spring 2019 – fall 2019)**, staff sought input on the role of the Drake Street bike lane in the overall downtown cycling network and on future connections that could improve safety and encourage sustainable travel.

Two design options were presented:

- **Option 1 (preferred by staff):** This option proposed a bi-directional (two-way) bike lane on the south side of Drake Street with protected intersections and significant opportunities for new trees, landscaping and green infrastructure. In this option, Drake Street would become one-way eastbound for motor vehicles. Approximately half of the on-street parking would be retained.
- **Option 2:** This option proposed uni-directional (one-way) bike lanes on both sides of the street. The option maintained two-way motor vehicle traffic, but would require turn restrictions at key intersections, such as Howe St and Granville St. Significant sidewalk narrowing would be required, for example at the Hornby, Granville, and Richards intersections. Approximately one tenth of the on-street parking would be retained – primarily in the Yaletown area.

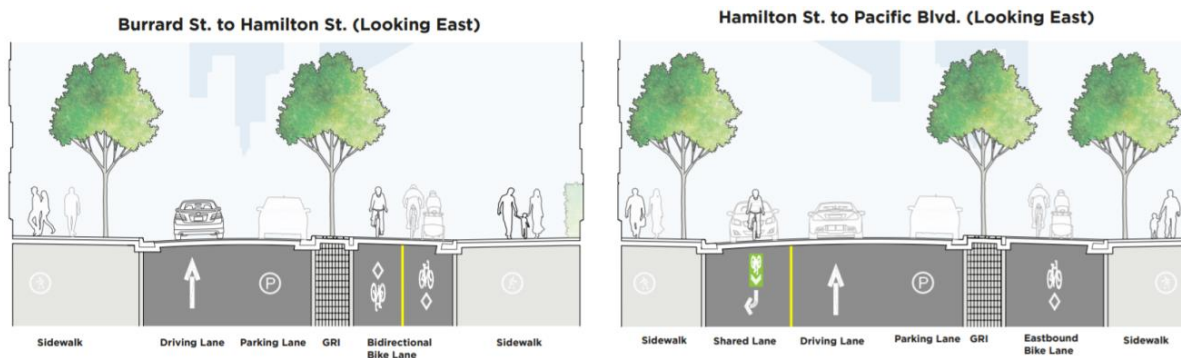
More details about the two design options can be found on the [Information Displays](#).

In **Phase 2 (Early 2020)** staff reported back on the feedback heard in Phase 1 and shared a refined recommended design that addressed the feedback received from public. More details about the recommended design option can be found on the [Information Displays](#).

In both phases, there were multiple opportunities to review and comment on the designs, including:

- Public open houses and surveys
- Personalized stakeholder discussions, which were offered to local businesses, business improvement associations, stratas, and citizen advisory groups to discuss the proposal in more depth

### Updated Proposed Design in Phase Two



The second phase of public engagement occurred in conjunction with the final phase of engagement for the [Granville Bridge Connector](#) project, which depends on Drake Street improvements for cycling network connectivity at the north end of the bridge. Both projects are expected to present recommended designs to the Council in 2020.

## What We Did

### Stakeholder Engagement

Phase 2 stakeholder engagement generally mirrored the approach taken in Phase 1, with additional outreach to groups that expressed interest in the project.

Staff reached out to stakeholders representing local businesses and residents, emergency service providers, and transportation. Staff also met with citizen advisory groups representing transportation, seniors, families and children, and persons with disabilities. Letters were sent throughout the area, and staff went door-to-door along the corridor, offering interested businesses and stratas personalized discussions.

A full list of stakeholders is provided in the table below.

Phase 1 (Spring 2019)	Phase 2 (Fall 2019 – Early 2020)
<p><b>We met with:</b></p> <ul style="list-style-type: none"> <li>▪ Vancouver Fire and Rescue Service</li> <li>▪ Vancouver Police Department</li> <li>▪ HUB</li> <li>▪ Downtown Vancouver Business Improvement Association</li> <li>▪ Yaletown Business Improvement Association</li> <li>▪ Yaletown businesses along Hamilton St.</li> <li>▪ Ismaili Community Centre</li> <li>▪ GEC Suites</li> <li>▪ Residence Strata and Associations along Drake St. such as -                             <ul style="list-style-type: none"> <li>○ Drake-Marinaside Corridor Association</li> <li>○ Governors Tower – 388 Drake St.</li> <li>○ Charleson – 499 Pacific St.</li> <li>○ Pacific Point – 1323 Homer St.</li> <li>○ Grace – 1280 Richards St.</li> </ul> </li> <li>▪ Other local businesses and residents associations along Drake St.</li> <li>▪ Wildlife Thrift Store</li> </ul> <p><b>We notified:</b></p> <ul style="list-style-type: none"> <li>▪ Elsie Roy School</li> <li>▪ TransLink</li> <li>▪ BC Trucking Association</li> </ul>	<p><b>We met with:</b></p> <ul style="list-style-type: none"> <li>▪ Downtown Vancouver Business Improvement Association</li> <li>▪ Yaletown Business Improvement Association</li> <li>▪ Yaletown businesses along Hamilton St.</li> <li>▪ BEST</li> <li>▪ HUB</li> <li>▪ HUB – UBC local committee meeting</li> <li>▪ Advisory Committees                             <ul style="list-style-type: none"> <li>○ Transportation Advisory Committee</li> <li>○ Seniors Advisory Committee</li> <li>○ Persons with Disability Advisory committee</li> <li>○ Children, Youth, and Families Advisory Committee</li> </ul> </li> <li>▪ Drake- Marinaside Corridor Association</li> <li>▪ Governors Tower – 388 Drake St.</li> <li>▪ Parkview Tower – 289 Drake St.</li> <li>▪ Wildlife Thrift Store</li> </ul> <p><b>We notified:</b></p> <ul style="list-style-type: none"> <li>▪ Elsie Roy School</li> <li>▪ Vancouver Fire and Rescue Service</li> <li>▪ Vancouver Police Department</li> <li>▪ Ismaili Community Centre</li> <li>▪ GEC Suites</li> <li>▪ Residence Strata and Associations along Drake Street, including:                             <ul style="list-style-type: none"> <li>○ Grace Building – 1280 Richards St.</li> <li>○ Charleson – 499 Pacific St.</li> <li>○ Pacific Point – 1323 Homer St.</li> </ul> </li> <li>▪ Yaletown local Businesses</li> <li>▪ TransLink</li> <li>▪ BC Trucking Association</li> </ul>

## Phase 2: Public Engagement & Outreach

As with Phase 1, a communications outreach plan was developed to support the engagement process by ensuring diverse public awareness of the scope, timeline, and opportunities for input.

Phase 2 for the Drake Street Upgrades project began with a media technical briefing in early 2020, with open houses, and an online survey running from February through March.

Specific tactics are listed below.

- **Notification letter mail drop:** Letters were sent to over 9210 residents and businesses near Drake Street. Staff became aware of an issue with notification letter delivery to a small number of addresses, a second round of notifications was sent by mail and letters/postcards were hand delivered to affected addresses. Staff hosted an additional drop-in session and extended the engagement period to ensure we had an opportunity to hear from additional residents/businesses.
- **Post cards:** 200 postcards were dropped off at local businesses along Drake St and at nearby community centres.
- **Posters:** Eye-level signs were installed along Drake Street, targeting people walking or cycling in the area to promote the project
- **Social media:** Organic and paid content was posted on the City’s Facebook, Instagram and Twitter platforms. The social media posts had over 1200 engagements (shares, comments etc.) and over 90,500 impressions.
- **Consultation web page:** A dedicated project page ([vancouver.ca/drake-street-upgrades](http://vancouver.ca/drake-street-upgrades)) was created, displaying project information and how to provide feedback. Open house engagement materials were posted to this website and were available throughout the consultation period. The public could also sign up for the project newsletter from the webpage. The website received over 1200 impressions/visitors.
- **Partner networks:** Stakeholders were encouraged to share engagement opportunities with their members and networks
- **Newsletter** – 366 subscribers to date

## Engagement and Communications

Activity	Quantity	Participants*
<b>Stakeholder Meeting/Conversations</b>	13	97
<b>Local Businesses (door knocking)</b>	50+	50+
<ul style="list-style-type: none"> <li>○ February 24, 2020</li> </ul>		
<b>Public Open House</b>		
<ul style="list-style-type: none"> <li>○ Date: February 6, 2020</li> <li>○ Location: Roundhouse Community Centre</li> </ul>	1	132 attendees
<b>Drop-In Session</b>		
<ul style="list-style-type: none"> <li>○ Date: March 3, 2020</li> <li>○ Location: Roundhouse Community Centre</li> </ul>	1	72 attendees
<b>Website</b>	1	Over 1200 visitors
<b>Survey form</b>	1	1237 responses
<ul style="list-style-type: none"> <li>○ Dates: January 24 to March</li> </ul>		
<b>Social Media</b>	8 Twitter posts	351 engagements 46,346 impressions
	5 Facebook posts	313 Engagements 11,966 impressions
	4 Instagram post	607 engagements 32,472 impressions
<b>Emails, Letters, Calls, 311 inquiries</b>	1 inbox	70+

\*Totals may include those who participated in multiple engagement methods.

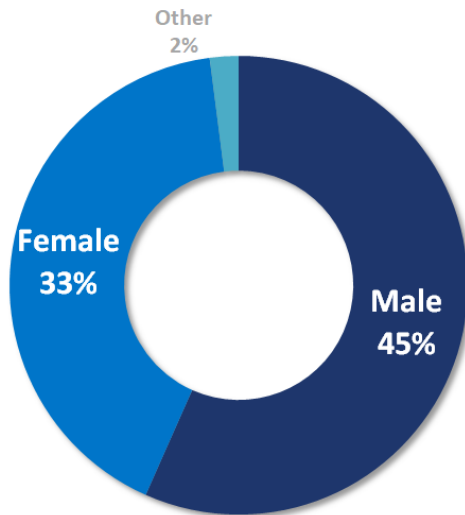


## Who We Heard From

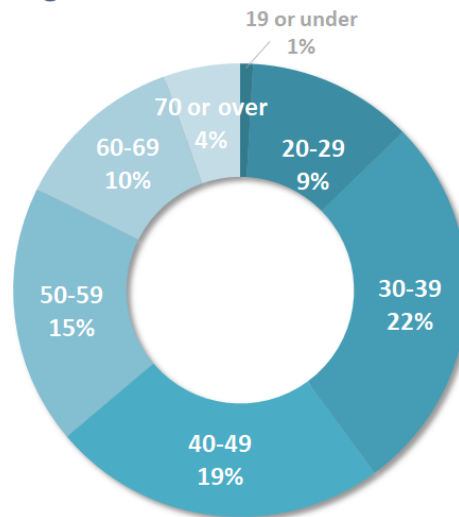
A total of **1237 people** responded to the public survey.

More respondents identified as male (45%) than female (33%), with another 1% identifying as transgender or another gender identify. A diverse range of ages was represented.

### Gender Distribution



### Age Distribution



Note: 80% of total participants responded to this question

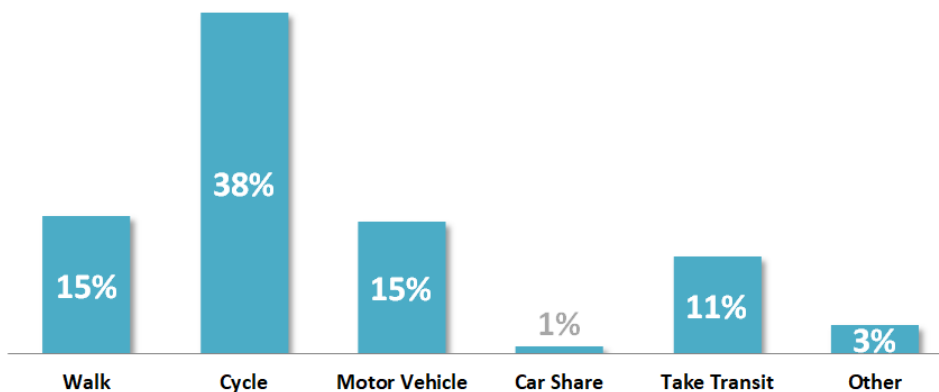
Note: 80% of total participants responded to this question

Figure 1 Phase 2 survey participants by gender and age.

When asked about their primary mode of travel in everyday life, respondents reported a broad mix:

- 15% walk as their main mode of travel
- 38% bike as their main mode of travel
- 22% use motor vehicle as their main mode of travel
- 3% use car-share as their main mode of travel
- 1% take transit as their main mode of travel
- 3% use other ways or switch between different modes as their main way of getting around

### Primary mode of travel



Note: 82% of total participants responded to this question

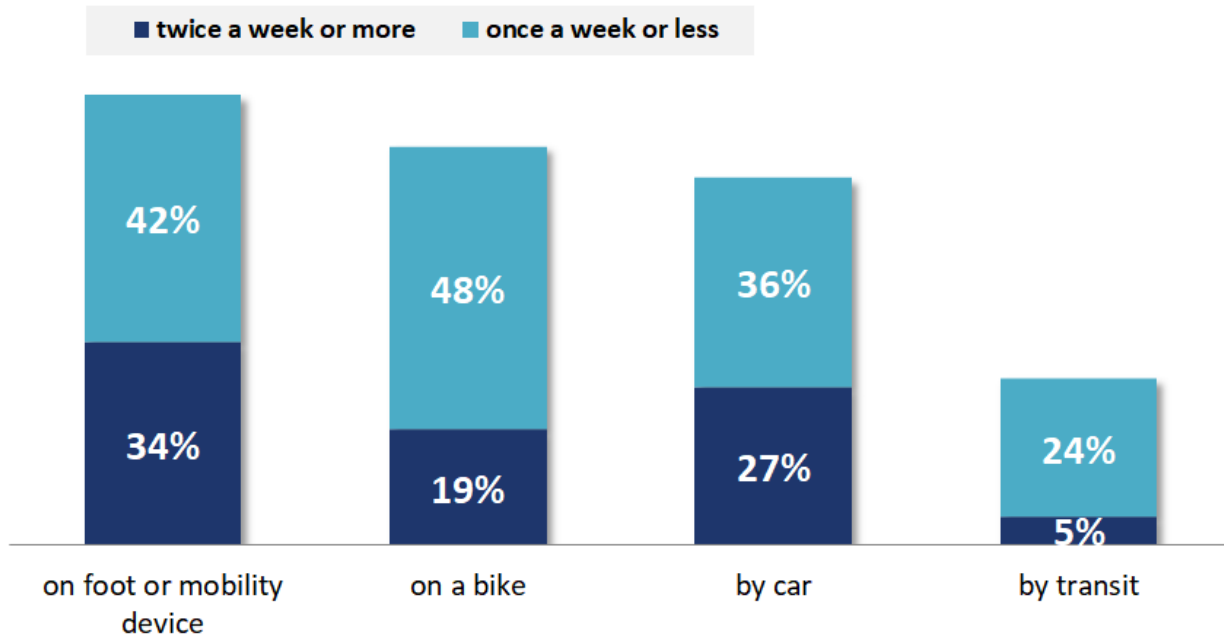
Figure 2: Phase 2 survey responses by experience using preferred modes of travel.



Participants reported how they normally travel along Drake St. using a wide variety of travel modes:

- 34% walk along Drake St. twice in a week or more (18% indicated they walk along Drake St. at least once a week)
- 19% bike along Drake St. twice in a week or more (24% indicated they bike along Drake St. at least once a week)
- 27% drive along Drake St. twice in a week or more (10% indicated they take transit across it at least once a week)
- 15% of the participants of total participants do not travel along Drake St. but are interested in the project

## How do you travel on Drake St?



*Note: 85% of the total participants travel along Drake St.*

Figure 3: Phase 2 survey responses by experience using different modes of travel along Drake Street.

## What We Heard

This section highlights key findings and themes from stakeholders and the general public.

### Findings from Phase 1

Participants noted the importance of:

- Providing safe cycling in both directions
- Improving landscaping and adding more trees
- Maintaining current sidewalk widths
- Ensuring the cycling route safely connects to existing and future routes
- Minimizing construction impacts

The most common themes from the stakeholder and public conversations in Phase 1 were:

- Parking and passenger/ loading zones
- Access to Granville Bridge
- Access to Yaletown businesses and the local neighbourhood
- Vehicle circulation and turning movements associated with converting the street to one-way for motor vehicles
- Safety for all road users, especially at intersections
- Walking infrastructure including sidewalk width and landscaping
- Construction impacts and coordination with related projects

Many of the specific concerns related to proposed turn restrictions at the eastern end of the project area, (particularly at the Drake-Pacific intersection), access to and from Granville Bridge, and access to Hamilton Street. A number of design modifications were made to address these concerns in the lead-up to Phase 2.

Feedback was also received on the importance of providing parking and loading options along Drake Street. Staff subsequently worked with stratas and businesses to modify the design, providing a mix of parking, loading and passenger zones in each block as required, and are continuing to find new opportunities for zones on adjacent streets.

Some participants expressed concerns with Option 1, noting in particular that maintaining two-way motor vehicle traffic along Drake Street was important to them. However, these concerns were offset by greater concerns that maintaining two-way motor traffic (Option 2) would result in fewer parking spaces and loading/passenger zones. Through the engagement, staff heard that much of the support for retaining two-way traffic was to facilitate convenient access to Granville Bridge for motor vehicles; however the turn restrictions required making a two-way option safe, removed most of the benefits.

Overall, Option 2 provided fewer transportation and public realm benefits since it reduced sidewalk widths at intersections, introduced new motor vehicle turning restrictions, had more conflict areas, and didn't provide opportunities for green rainwater infrastructure. Conversely, Option 1 was felt to be better for walking and public realm due to wider sidewalks, the potential to include new trees and better for cycling due to fewer conflict areas, better interfaces with other routes, and more room for passing, and potentially better for driving due to fewer turn restrictions.

Read more: [Phase 1 Engagement Summary](#)

## Findings from Phase 2

### Level of support for the design changes to the recommended design

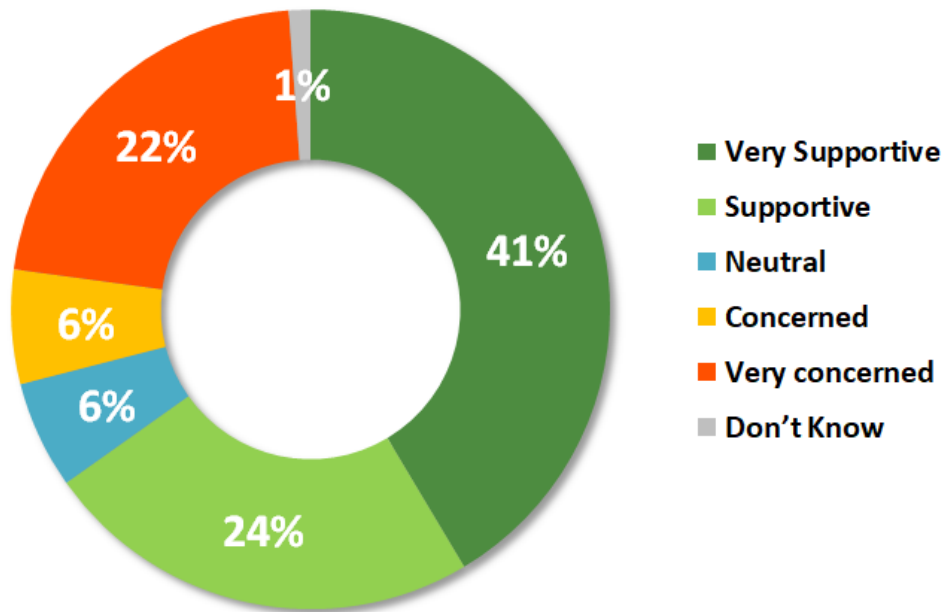
Following the first phase of engagement, staff refined Option 1 (two-way protected bike lane and one-way eastbound vehicle traffic), with design changes to address feedback and concerns.

The changes included:

- Improving motor vehicle access to Hamilton Street by maintaining two-way motor traffic between Hamilton Street and Pacific Boulevard
- Addressing motor vehicle circulation concerns at the eastern end of the project by eliminating proposed turn restrictions at Pacific Boulevard, allowing vehicles to turn left, right, or go straight
- Prioritizing loading and passenger zones based on input from businesses and residents
- Advancing green rainwater infrastructure to reduce road flooding during heavy or prolonged rainfall (permeable paving materials, trees, and rainwater tree trenches)

The revised design was presented to public in early 2020. Staff consulted with residents, businesses and key stakeholder on these modifications. Figure 4 below, reflects the level of support for the changes to the recommended design:

- Over 60% of participants were supportive or very supportive of the design changes
- 28% of participants were concerned or very concerned
- 6% participants felt neutral



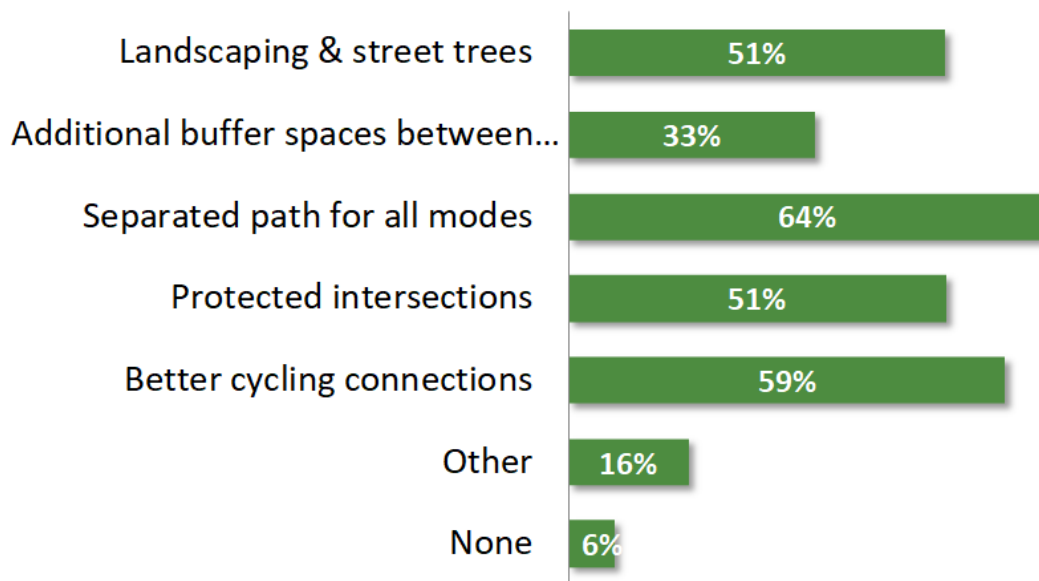
*Note: 91% of total participants responded to this question*

Figure 4: How do you feel about the changes to the recommended design?

Respondents were invited to share which design elements would improve the experience of people walking, rolling, cycling, or driving (see Figure 5). In ranked order, the elements were:

- Providing separate paths for different user groups (64%)
- Improving cycling connections to existing and future routes (59%)
- Protected intersections (51%)
- Landscaping and street trees (51%)
- Creating additional space between the sidewalk and moving traffic (33%)
- Other (16%), with write-in comments including suggestions to maintain two-way motor vehicle traffic for people driving, and more explicit cycling connections to the Seawall for people cycling

## Design elements that would improve user experience



*Note: 90% of the total participants responded to this question.*

Figure 5: Overall, which design elements would improve your experience to walk, roll, cycle or drive on Drake Street?

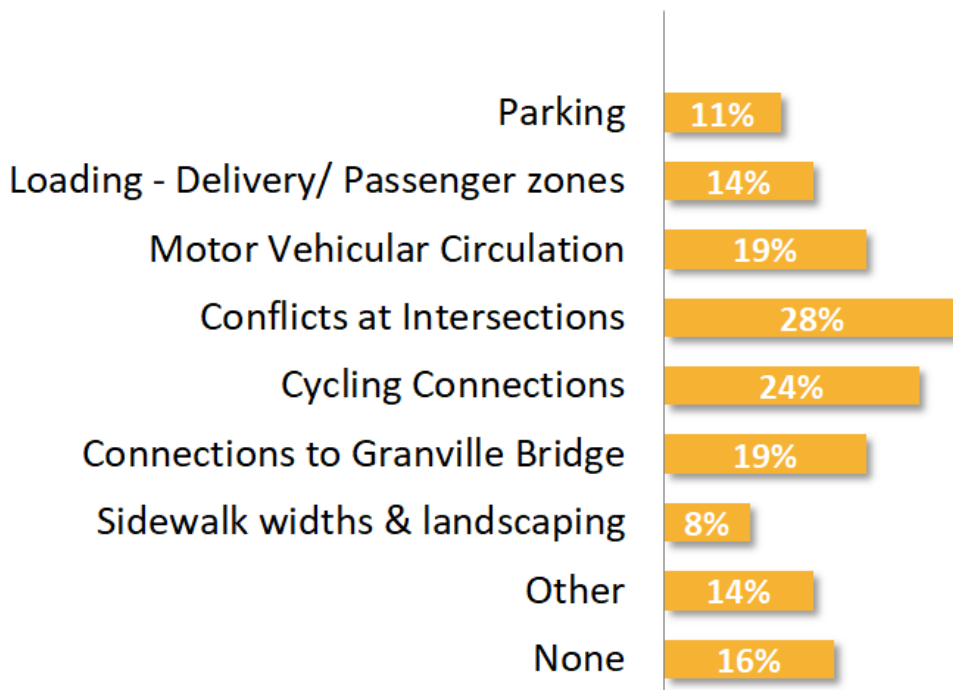


## Concerns related to the recommended design

Respondents were also invited to share their concerns about the project (see Figure 6 below). Highlighted concerns included:

- Potential conflicts between people cycling and people driving between Hamilton and Pacific as well as at the Hamilton-Drake intersection, where the proposed cycling facility transitions from a protected lane to a shared one
- Potential difficulty for residents entering or exiting the laneways and parkades in developments at the eastern end of the project area
- Continued diverse opinions relating to Option 2 (which was part of Phase 1 engagement and did not advance to Phase 2), with some participants continuing to advocate for maintaining two-way motor vehicle traffic along Drake Street
- Divergent opinions on the design at the eastern end of the project, which was modified to improve motor vehicle circulation and access
  - Many respondents appreciated the nuanced change to the design
  - Some respondents wished to extend the two-way design all the way between Homer and Pacific
  - Other respondents expressed a desire to extend the two-way protected cycling facility further east for additional safety and improved active transportation connectivity to the Seawall
- 22% did not respond to this question and 16% did not have any concerns

## Concerns related to recommended design



*Note: 78% of the total participants responded to this question.*

Figure 6: Overall, concerns about the recommended design.

# Common Themes & Staff Responses for specific intersections

This section reflects the comments and suggestions that we heard in Phase 2 through surveys, public events, and stakeholder discussions, followed with staff responses.

## 1. Drake St and Pacific Blvd

- General support for design change to remove proposed turn restrictions at Drake-Pacific to allow motor vehicles traveling eastbound on Drake St. to turn left, right or go straight
- Some people commented that Pacific St can be challenging to cross for people walking and cycling, particularly for children and seniors accessing the Yaletown-Roundhouse Community Centre, due to street width and high number of left-turning eastbound vehicles
- Specific suggestions for improvement included:
  - Improving visibility, wayfinding and traffic signal timing for all road users
  - Extending the Drake Street cycling connection to the Seawall

### *Staff Response*

The design was modified to allow motor vehicles traveling eastbound on Drake Street to make all movements (left, right and straight) at Pacific Boulevard. This change was made in response to concerns heard in Phase 1 regarding a desire for adequate motor vehicle access to the Marinaside neighbourhood and Elsie Roy School. This change maintains Pacific Blvd. as a route to access to the Granville Bridge and provides the same access to Hamilton St as today.

Due to the width of Pacific Boulevard and angle of the intersection, crosswalks are 31-37m long versus the 11m needed to cross Drake at most of its intersections. This width not only prevents the use of protected turn phases since the walk phase already takes up half the available signal time, but it can make the intersection daunting to cross on its own. Unfortunately, meaningful changes at this intersection are not possible without substantial reconstruction of Pacific to reduce the crossing distance by realigning the intersection, narrowing or removing the median and a protected intersection design that would allow people to cross the Pacific bike lanes separately from the main crossing. With the current alignment, the use of curb bulges (as would be effective in smaller intersections) would reduce crossing distances by no more than 10% while not making progress toward more substantial change.

To help improve walking and cycling connections between Drake Street and the Seaside Greenway (Seawall), staff are exploring minor improvements on Marinaside Crescent between Drake St and Davie St, such as a reduced 30km/h speed limit, wayfinding signs and stencils. Through a related project, staff could explore redesigning the Davie-Marinaside intersection, separating walking and cycling paths along the Seawall to help reduce conflicts between all users and provide a smooth transition between the roadway and the Seaside Greenway.

## 2. Drake St and Hamilton St & Homer St

- General support for design change to make Drake Street two-way for motor vehicles between Hamilton and Pacific to allow better vehicular access to Hamilton Street
- Concerns raised included:
  - Accessing building parkade between Homer and Pacific
  - Potential conflicts between people cycling and people driving between Hamilton and Pacific as well as at the Hamilton-Drake intersection, where the proposed cycling facility transitions from a protected lane to a shared one
  - How people would safely access the loading or passenger zones on the south side of Drake St from the sidewalk
- Specific ideas mentioned included:
  - Adding street markings, visibility features and wayfinding at the Hamilton intersection to make it safer and less confusing for people cycling and driving
  - Considering moving the protected bike lane to shared bike lane transition from Drake-Hamilton to Drake-Homer

## **Staff Response**

Maintaining existing access routes to Hamilton St businesses is important, and although this requires mixing westbound cycling and motor vehicles, 60% of the peak hour traffic to Hamilton Street is from eastbound, rather than westbound Drake, and there is no westbound through traffic along Drake. At the Hamilton transition point, only a single lane of eastbound traffic need be crossed by making a fairly regular left turn at a two-way stop. As a result, this section still meets the City of Vancouver's All Ages and Abilities guidelines for mixed traffic.

Staff will continue to work with the Yaletown BIA and businesses on the allocation of curb use for parking and other business functions, which could, for example, include the use of pay stations to allow more parked cars along the same length of curb, and morning loading zones that convert to metered parking in evenings.

### **Overall design considerations**

Well over a dozen variations on the transition of the east end of the protected bike lane were considered in terms of safety, comfort, access, and parking. Only the Pacific Blvd intersection was considered more appropriate, but the turn restrictions in the original proposal eliminated it from consideration and a substantial reconstruction of Pacific Blvd on either side of the intersection would be required to make it work without the turn bans. Several transitions at Homer St were considered, but they do not work as well as Hamilton St given the larger signalized intersection with an additional road connection where a transition similar to that proposed at Hamilton St would have been. As a result, the transition would likely need to be achieved with a westbound protected bike lane along the north curb (removing parking) and a separate diagonal signal phase, which is a significant expense providing limited benefit and increased delay for each mode of travel over the recommended design.

### **North side of Drake St**

This change also requires removing parking from the north side of Drake St between Hamilton St and Pacific Blvd adjacent a residential building, and staff will work to identify the nearest potential alternates for pick-up and drop-off, such as from the Pacific Blvd side of the building.

### **South side of Drake St**

In February 2020, staff requested data collection of motor vehicle circulation at Drake St and Hamilton St, including access to a residential driveway on the south side of Drake St which is slightly offset at this intersection. Peak-hour, peak-direction traffic at the residential driveway is one vehicle every other minute, and traffic returning home in the afternoon peak is 2/3 eastbound right turns. This driveway is thus comparable in volume to many others along downtown protected bike lanes, but with more reliable user familiarity in negotiating the crossing. Although it is possible to provide westbound access into the driveway, either some or all of the north side parking would be removed depending on whether that travel lane ended at the driveway (potentially confusing) or as a right turn onto Homer.

Loading, passenger zones, and parking along protected bike lanes are typical in Downtown Vancouver, including busier locations like hotels, cultural facilities, and transit stops. Residential towers and townhomes frequently front protected bike lanes, retaining loading and passenger zones for guests, deliveries, and moves from homes. There is currently a signed passenger zone within the Hamilton intersection, which is not consistent with City bylaws and as such is to be relocated west of the intersection (and driveway) per the adjacent strata's preference versus a location closer to Pacific. It cannot be retained in the intersection due to bylaw. Staff explored formally closing the unmarked crosswalk east of the intersection to provide an alternate location, but this would be further away from the courtyard entrance than the proposed location and closing crosswalks is not supported by the City's policies as set out in Transportation 2040.

## **3. Drake St and Richards St**

- General support for providing a safe cycling connection to link the [Richards Street upgrades](#) (currently under construction) and the proposed [Granville Bridge Connector](#)



- Support for specific proposed intersection features to improve safety for all road users, including corner islands, bike boxes, and maintaining clear sight lines
- Specific concerns included:
  - Removal of a designated passenger pick up and drop off zone on Drake Street for visitors to the Ismaili Community Centre
  - How people driving would safely enter and exit the lanes between Richards and Homer while crossing a two-way bike lane

### ***Staff Response***

Along with the Richards Streets Upgrades, staff worked with representatives of the Ismaili Community Centre to provide two designated passenger pick up and drop off zone and other parking options in the vicinity of the Ismaili Community Centre on the Southwest corner of Drake St and Richards St. Both projects would maintain direct access to the Community Centre. A detailed design can be found [here](#).

- The designated passenger pickup-drop off would include:
  - One Passenger zone on south side of Drake St. at the entrance of the Ismaili Community Centre
  - Two spaces of passenger zone on Richards St. adjacent to the Ismaili Community Centre
- Other parking options would include:
  - New metered parking on Richards on the Northwest curb across the Ismaili Community
  - Additional strip of four metered parking stalls on the Southside of the block

## **4. Drake St and Seymour St**

- Some reported the intersection to be confusing with cars coming off the ramp turning right, making it awkward and challenging for the drivers
- Some wondered whether there would be a right turn signal to enable safer turn movements and reduce conflicts with two-way bike traffic

### ***Staff Response***

The way Seymour St approaches Drake St is largely determined by the Granville Bridge ramp joining with the lower portion of Seymour St immediately before the intersection, and without significant reconstruction of the bridge, restricting the turn in question, or generally affecting access, limited change is possible. Changes such as separate traffic signal phases for the two approaches on Seymour St would require a more complicated five leg intersection and a reduction in capacity available for traffic leaving the Granville Bridge.

Conflicts with two-way bike traffic on Drake St would be managed by restricting right turns on red from Seymour St onto Drake St, as is standard practice for these types of bike lanes.

## **5. Drake St and Rolston St – Continental St**

- Some questions regarding traffic circulation and access , relating to:
  - The combination of Drake St becoming one-way for motor vehicles and the replacement of the Granville Loops with a normalized street network (approved in 2010)
  - Access to some buildings on Rolston St. & Continental St.

### ***Staff Response***

Although the exact details will be finalized through the Granville Connector and Loops projects, the replacement street network is expected to provide the following connections for motor vehicles:

- Between Drake St and existing driveways on the western portion of Neon St in both directions via Continental St
- Between Drake St and existing driveways on the eastern portion of Neon St in both directions via Rolston St

- Northbound from Pacific St (to Drake St) on Continental St
- Southbound from Pacific St (to Drake St) on Rolston St
- Access to and from the bridge from any individual building in this area varies, but can be achieved using a combination of Drake St, Pacific St, Continental St, Rolston St, and/or Neon St without leaving those blocks

## 6. Drake and Granville

- General support and excitement for providing safe walking and cycling connections to the potential Granville Bridge Connector via Drake St
- Some questions and comments regarding neighbourhood circulation
- Some suggestions to
  - Facilitate cycling further north on Granville St
  - Ensure the design allows for high volumes of turning bikes

### *Staff Response*

Although the design for this intersection is led by the Granville Bridge Connector project, staff have been working closely together. The eastbound right turn restriction at Drake St is expected to be accommodated for most with the separate turn phase at Howe St, and instead the space can be used to ensure the north end of the Granville Bridge Connector connects well to Drake St and onward into Downtown. It would additionally allow for more curb use on Drake, and a more useful loading zone in front of the Wildlife Thrift Store.

In terms of cycling connections along Granville Street, a formal connection would need to be considered as part of a broader downtown Granville Street project as there is currently no east-west connection until Dunsmuir. However, the intersection aims allow transitions to and from mixed traffic to the north of Drake St through the arrangement of ramps for southbound and a two-stage turn to continue northbound first using the Drake St crossing.

## 7. Drake St and Howe St

Some general safety concerns for all road users, with suggestions including reducing speed limits, adding corner islands and pedestrian refuges, and improving visibility.

### *Staff Response*

The design for Drake St and Howe St includes curb bulges to support slow turning speeds and reduce the length of crosswalks to their minimum for the number and kinds of traffic lanes. Along with a separate right turn phase for people driving turning onto Drake St, this provides not only more comfortable crosswalks, but also helps to maintain motor vehicle capacity onto the Granville Bridge as part of the approach taken by the Granville Bridge Connector project. Although there are no current plans to reduce speed limits on downtown streets more broadly, the Granville Street Patio and Transit Priority Pilot includes a 30km/hr speed limit just north of the bridge, and the City has been reducing speed limits that are higher than the 50km/hr default (like the Granville Bridge) during related project work.

## 8. Drake St and Hornby St

- Many comments regarding awkward and unclear current conditions, in particular for people cycling:
  - Travelling south on Hornby St and turning right on Drake St
  - Travelling east on Drake St and turning left on Hornby St
- Some suggestions included:
  - Creating a diagonal crossing for people cycling to turn between Hornby and Drake and improving traffic signal timing for people walking and people cycling
  - Adding more signage, improving markings and wayfinding

### ***Staff Response***

The protected intersection is expected to substantially address confusion regarding the existing design that requests, for example, people cycling from Hornby St to Burrard St to first make a left turn and a U turn to face oncoming motor vehicle traffic. The proposed design clearly separates two crossings, one north-south for Hornby St, and one east-west for Drake St, and turns between the two are smoothly made in the protected southeast corner.

To facilitate the important connection between Hornby St and the Burrard Bridge, as well as remove the incentive to ride in crosswalks or disobey signals, the expected intersection timing will maximize the length of each bicycle crossing and should provide an overlap where both bicycle crossings are green at the same time. The ideal result would be someone cycling from Hornby St at Davie St to Burrard St at an appropriate pace without stopping.

We understand the interest in a diagonal crossing, but given the geometry of the intersection the most likely outcomes for a third phase would be:

- A phase in which all crosswalks and bicycle crossings are possible at the same time, which could lead to conflict between the various bicycle turns, as well as with crosswalks
- A phase in which only the diagonal crossing is made, along with the busier northbound right turn for motor vehicles, which could be confusing and requires diagonal bike movements to proceed separately from straight bike movements
- A longer wait to use the specific phase rather than maximizing the length of each individual crossing

## **9. Drake St and Burrard St**

- Some comments expressing appreciation for how the design would improve safety for people walking and cycling
- Some concerns regarding potential conflicts when people driving attempt to access neighbourhood lanes
- Suggestions included
  - Synchronizing traffic lights to improve conditions for people walking and cycling
  - Connecting Drake St with the Burnaby St bike lane further west

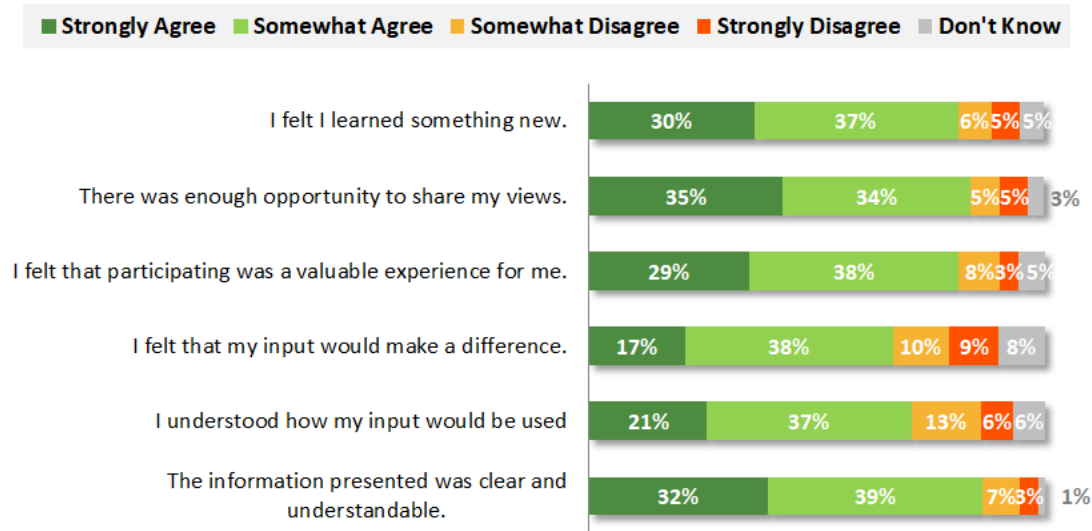
### ***Staff Response***

The changes coordinated with adjacent redevelopment at Burrard St include expanding refuges and adding tactile walking surface indicators (TWSIs) for accessibility as is now standard at protected intersections. As with Drake St and Hornby St, the busy northbound right turn movement from Burrard St would have its own phase, and the intent is to maximize safe crossing opportunities, for example allowing people walking and cycling along Burrard St to cross at the same time as Drake St provided there is no traffic exiting from the alley. The current situation encouraged people to cross against the signal as there is rarely traffic from the lane, which in turn makes it more difficult for drivers to safely exit.

On the west side of the intersection, a subtle redesign introduces a protected intersection corner in the southwest to make a smooth Burnaby St to Drake St connection while straightening the alignment for people driving eastbound and better accommodating garbage truck access from Burrard St to the lane while still supporting slow turning speeds.

## Public Feedback Engagement Process

Staff collected feedback about the engagement process to review what went well and how we can improve on future projects.



*Note: 83% of total participants responded to this question*

Figure 7: Public reflection on overall Engagement Process

## Next Steps

Comments received in Phase 2 of the engagement process are being considered by staff as they finalize the recommended design and prepare a report to Council.