



RR-4

ADMINISTRATIVE REPORT

Report Date: May 9, 2017
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Meeting Date: May 16, 2017

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: 10th Avenue Health Precinct Street Improvements

RECOMMENDATION

- A. THAT Council approve the design concept of 10th Avenue between Oak Street and Cambie Street, as generally described in Appendix A;
- B. THAT Council direct staff to execute Actions 1 through 10, as described in this report and constituting a project within the current approved Capital Budget for Active Transportation Corridors and Spot Improvements; and
- C. THAT Council authorize the Director of Legal Services to enter into Statutory Right of Way Agreements ("SRWs") in favour of the City over private property at 675 West 10th Avenue, 2550 Willow Street, and 2733 Heather Street for Sidewalk and Utility purposes, on terms and conditions acceptable to the General Manager of Engineering Services and the Director of Legal Services, in consultation with the Director of Risk Management, and in compliance with City policy and Council Authority regarding securing Greenway Right of Ways (Type 3 Right-of-Ways).

REPORT SUMMARY

10th Avenue through the Health Precinct between Oak Street and Cambie Street is a unique street in Vancouver. It serves as a critical access point for Vancouver General Hospital and other health institutions, including emergency room access. It is also a busy walking street and the second busiest local street bike route in the city. Over recent years, the experience for all users of 10th Avenue has declined as the street has gotten busier with more people walking, cycling, and driving in the area.

Extensive public engagement was undertaken to understand issues in the corridor and to develop a plan to improve 10th Avenue for everyone who uses the street. The final proposed design is included in **Appendix C** and it is the result a multi-phase public process, including refinement through a collaborative process with Health Precinct partners: Vancouver Coast Health (VCH), Vancouver General Hospital (VGH), and the Provincial Health Services Authority (PHSA) responsible for the BC Cancer Agency (BCCA) and BC Cancer Research Centre (BCCRC). This proposed design has been endorsed by the Health Precinct partners. The changes made to the recommended design over the course of the engagement process address the primary concerns raised by the city advisory committees, including the Seniors' Advisory Committee, the Persons with Disabilities Advisory Committee, and the Active Transportation Policy Council (see **Appendix F** and **G** for specific responses to earlier Council motions). Staff will be meeting with all three committees in advance of presenting the project to Council.

Based on this consultation, on 10th Avenue between Oak Street and Cambie Street, staff recommend improving the street's sidewalks and pedestrian crossings, including adding benches, pedestrian-scale lighting, raised intersections, a new accessible full traffic signal, and protected traffic signal phasing to significantly improve conditions for all pedestrians, especially those who are more vulnerable. Given the area is a regional destination and most of the vehicle traffic on 10th Avenue is related to the area's health services, staff also recommend installing a protected bike lane to alleviate many existing safety concerns related to people driving and biking along 10th Avenue. The 10 recommended actions to achieve these improvements are:

- Action 1:** Create "Hospital Zone" signage, pavement markings, and other treatments, reinforced through a road user education campaign
- Action 2:** Improve safety and comfort for patients and other vulnerable pedestrians by installing new sidewalks, shorter crossings, marked crosswalks, lighting, and other improvements
- Action 3:** Enhance pick-up/drop-off areas for patients, including longer raised passenger zones in front of the Eye Care Centre and Mary Pack Arthritis Centre
- Action 4:** Ensure convenient parking is available for patients with mobility challenges, while collaborating with health partners to improve the area's general visitor parking
- Action 5:** Improve alternate bike routes to 10th Avenue, including 14th Ave, Off Broadway (e.g. 7th Ave), and a north-south bike route west of Oak Street, to allow people reasonable alternatives to more easily bypass the Health Precinct
- Action 6:** Create an environment where people of all ages and abilities feel safe and comfortable cycling by installing raised uni-directional protected bike lanes on both sides of 10th Avenue between Oak Street and Cambie Street, improved street crossings, and treatments to encourage slower speeds
- Action 7:** Convert 10th Avenue to one-way for westbound vehicles from Cambie Street to Ash Street to reduce vehicle volumes and maintain the tree canopy east of Ash Street

- Action 8:** Enhance accessible transit options by installing new bus stops for the #17 bus route at Oak Street and 10th Avenue and improving HandyDART and patient transfer access
- Action 9:** Facilitate local resident access by retaining permit parking on the 900 10th Avenue block, where possible, and reassign this block to the Oak West Residential Parking Permit Zone
- Action 10:** Commit to ongoing improvements and issue resolution, including establishing a 10th Avenue Health Precinct Evaluation Committee to evaluate the project's impacts following implementation and recommend spot improvements

The following report outlines the recommended plan for these improvements to 10th Avenue through the Health Precinct, for implementation in two phases with the first phase being completed in 2018.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

In 2002, Council approved CD-1 Zoning and Guidelines for the Vancouver General Hospital, following an extensive master plan process. Key improvements include adding green space in a number of locations around the campus, adding centralized parking to serve the district, and building new medical facilities across the campus. The guidelines discuss the importance of 10th Avenue as an east-west corridor for pedestrians and cyclists. Improvements to 10th Avenue were included as part of the hospital's works and have remained unchanged in revisions of the Services and Open Space Agreements.

In 2004, 10th Avenue from Trafalgar St to Victoria Dr was designated by Council as a bikeway, responding to the already high cycling usage at that time and the need for a more direct east-west bikeway through the Central Broadway area, which is the second-largest employment district in the province after the downtown.

Transportation 2040 (T2040) identifies improving the 10th Avenue bike route as a key project and it is highlighted on the plan's Cycling Route Priorities map. More broadly, the plan includes a zero-fatality safety goal, and encourages walking and cycling facilities that are safe for people of all ages and abilities.

A number of other City policies support improvements for active transportation including the Greenest City Action Plan, the Healthy City Strategy, and the Renewable City Plan.

The Greenest City Strategy echoes Transportation 2040 goals related to "green transportation", while also setting targets to plant 150,000 additional trees in the city between 2010 and 2020, and increase canopy cover to 22% by 2050. The latter supports the developing City's Urban Forest Strategy in protecting, growing and maintaining a healthy, resilient urban forest for future generations.

In the May 23, 2001 Policy and Authorization for Securing Greenway Right-of-Ways, Council authorized the Director of Legal Services, in consultation with the General Manager of Engineering Services and the Director of Risk and Emergency Management, to enter into Type

3 Right-of-Way (ROW) agreements to permit the City to construct, maintain, and operate Greenways on private property and, if appropriate, to indemnify private property owners for liabilities directly attributable to such activities, in situations where Type 1 or Type 2 access cannot be secured or is not appropriate.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager and General Manager of Engineering Services support the recommendations of this report.

This report is the culmination of over a year and a half of joint effort between City staff, health authorities, Seniors' Advisory Committee members, Persons with Disabilities Advisory Committee members, and many other groups to improve the function of 10th Avenue through the Health Precinct for all people using the street. This process has led us to a recommendation that will create a truly complete street that will serve the hospital and the city for decades to come and is a model for collaboration between different public institutions.

While it won't be completed immediately, the first phase will help address key safety locations, make the street more comfortable for patients and all road users and will help communicate that this section of 10th Avenue is a gateway to an important "Health Precinct".

REPORT

Glossary of Acronyms

AAA	- All ages and abilities
ATPC	- City of Vancouver Active Transportation Policy Council
BCCA	- BC Cancer Agency
BCCRC	- BC Cancer Research Centre
BC EHS	- BC Emergency Health Services
CMBC	- Coast Mountain Bus Company
CoV	- City of Vancouver
ER	- Vancouver General Hospital Emergency Department ("Emergency Room")
LMFM	- Lower Mainland Facilities Management
PHSA	- Provincial Health Services Authority
PWDAC	- City of Vancouver Persons with Disabilities Advisory Committee
SAC	- City of Vancouver Seniors' Advisory Committee
SPARC BC	- Social Planning and Research Council of BC
SRW	- Statutory right-of-way
VCH	- Vancouver Coastal Health
VFRS	- Vancouver Fire and Rescue Services
VGH	- Vancouver General Hospital

Background/Context

In June 2015, staff began to consult with stakeholders and the public around improvements to the 10th Avenue Corridor. Through this process, the Health Precinct between Oak Street and Cambie Street around Vancouver General Hospital (VGH) was clearly identified as a stretch of

the corridor that didn't work well for anyone using the street, despite being a key transportation link for the thousands of people who arrive daily to access health services at a number of institutions. As the project team advanced the design and engagement process, it became clear that the focus for this segment of 10th Avenue needed to improve the street for patient access, which includes better managing the street's many functions.

The existing design of 10th Avenue through the Health Precinct is essentially no different than any other section of 10th Avenue, yet it is tasked with managing numerous and complex competing interests. The Health Precinct that surrounds it is a regional destination with numerous health care service providers including Vancouver General Hospital and the BC Cancer Agency (BCCA). As the Health Precinct has grown, 10th Avenue's narrow roadway has been getting busier and it now handles roughly 4,500 vehicles and 3,000 bikes on busier days, as well as thousands of walking trips, deliveries, ambulance access to VGH ER, HandyDART trips, and patient transfers. The precinct also contains higher-volume local streets that cross 10th Avenue, the busiest being Ash Street, which carries just under 8,000 vehicles per day. Most importantly, 10th Avenue has to support a high proportion of vulnerable pedestrians, whose accessibility needs are not always outwardly apparent. Balancing the many competing needs in this 5-block stretch of the continually-developing Health Precinct has made it one of the most complex design exercises currently underway at the City.



Figure 1. 10th Avenue Health Precinct, Oak Street to Cambie Street

The 10th Avenue Corridor project represents an opportunity to improve conditions for the Health Precinct visitors and patients, while also achieving the broader corridor project goals of making it safer and more comfortable for people of all ages and abilities to use 10th Avenue by any mode of travel. The City's full list of goals for this unique segment of 10th Avenue are:

1. Ensure efficient and intuitive access to hospital emergency facilities for both ambulance drivers and the general public
2. Accommodate the loading and patient/client access needs of adjacent medical services, businesses and other institutions
3. Improve comfort and accessibility for people on foot, with a focus on patients

4. Upgrade the 10th Avenue Bike Route so that it is safe and comfortable for people of all ages and abilities to cycle
5. Preserve as much of the street's healthy and mature tree canopy as possible
6. Ensure adjacent residents can continue to park within a reasonable walking distance of home

This Council report focuses on recommendations related to the improvements to 10th Avenue in the Health Precinct; however, this segment of 10th Ave is one part of the larger 10th Avenue Corridor Project. Acting on Transportation 2040 direction, staff are simultaneously working to also improve walking and cycling conditions elsewhere on the corridor to improve the comfort and safety for people walking or biking. Staff are still in the process of engagement efforts for these other segments. As the project advances, staff will continue to engage the public and stakeholders on these and other priority segments of 10th Avenue.

Engagement and Consultation Process

Through feedback from both stakeholders and the public, the project recommendations have advanced considerably since the project began. Given the complexity of public and stakeholder interests in this segment of 10th Avenue, staff have been in frequent contact with several stakeholder groups. Consultation for the project started in July 2015 and occurred through a multi-phase process. A variety of activities were held (meetings, stakeholder and accessibility workshops, presentations, and public open house events) to engage stakeholders, health service providers, businesses, residents, civic advisory committees, and users along the 10th Ave Corridor. A collaborative process with Health Precinct partners was also initiated in November 2016. In total, over 2,000 people participated directly in 90+ meetings. Approximately 4,150 feedback forms were completed and over 200 responses received through the 10th Ave project email account and 3-1-1 between July 2015 and April 2017. A full summary of the engagement process is outlined in **Appendix B** and City feedback form results are in **Appendix H**.

Health Precinct Collaborative Process

Following the third round of public engagement events held in November 2016, executives at Vancouver Coastal Health (VCH) and BCCA contacted City staff with concerns about the impacts of the proposed changes on traffic circulation and parking. The City, VCH, and BCCA/PHSA, along with Lower Mainland Facilities Management (LMFM), began a collaborative process, where the organizations jointly hired an external consulting team, including outside design resources, to refine the design to a better solution that works for all parties (see **Appendix C** for a summary of this process). The process resulted in a re-balancing of some of the trade-offs presented during the City's Phase 3 of engagement.

Strategic Analysis

To achieve City goals for the 10th Ave Health Precinct, staff are recommending a diverse array of infrastructure improvements to 10th Avenue between Oak Street and Cambie Street. These upgrades include improving the street's sidewalks and pedestrian crossings, adding benches, completing pedestrian-scale lighting, raising intersections, installing a new accessible full traffic signal, and providing protected traffic signal phasing to significantly improve conditions for all pedestrians, especially those who are more vulnerable. Given the area is a regional destination and most of the vehicle traffic on 10th Ave is related to the area's health

services, staff also recommend installing a protected bike lane on this existing bike route to alleviate many existing safety concerns related to people walking, biking, and driving along 10th Avenue.

These recommendations are the result of the extensive engagement process. In general, the feedback received at engagement events has consistently shown the strongest support for the proposed pedestrian improvements. The concept of creating a clear “hospital zone” was also identified through the consultation process and has been very well received by stakeholders and the public, both for the potential to improve wayfinding signage but, more importantly, to clearly communicate that the Health Precinct portion of the 10th Avenue Corridor is a unique “campus”. This messaging would clarify that this area is special and remind all people traveling in the precinct to respect the safety needs of patients, caregivers, people with disabilities, and others with varying levels of mobility accessing health services in the area.

Although the overall response to the City’s feedback forms suggest there is a high amount of support for creating separate space for the different travel modes on 10th Avenue, this change involves making the most challenging trade-offs, including reducing on-street parking and removing some existing trees. The final recommendations detailed below aim to ensure that everybody who needs to travel on 10th Avenue can do so safely and comfortably, while encouraging people who don’t need to use the street to use alternative routes. This includes discouraging vehicle short-cutting and improving the surrounding bike network to give people who do not need to cycle through the Health Precinct other options. These recommendations represent the approach that City staff feel best manages the corridor’s complex trade-offs, based on extensive public and stakeholder feedback, including the results of the recent collaborative engagement process with Health Precinct partners. The adjustments beyond the design presented at the Phase 3 Public Open Houses are summarized below:

Design Change	Rationale
<i>Added at least 10 spaces for disability parking, passenger zones, or priority vehicle staging areas</i>	<ul style="list-style-type: none"> To ensure convenient parking is available for patients and visitors with mobility challenges
<i>Extended the two-way portion of 10th Avenue to span Oak Street to Ash Street</i>	<ul style="list-style-type: none"> To improve ambulance access from Emergency to BCCA To provide additional redundancy in the road network To improve constructability of the project
<i>Added 4 additional spaces for residential permit parking</i>	<ul style="list-style-type: none"> To minimize the parking loss impacts to local residents, many of whom live in older rental buildings with few parking options in their building
<i>Removed the proposed car-free zone on Heather St</i>	<ul style="list-style-type: none"> To allow possible traffic calming of Heather St to be explored as part of the upcoming VGH Master Plan update or adjacent development
<i>Moved portions of sidewalk onto VCH and PHSA property (through statutory right-of-ways - SRWs)</i>	<ul style="list-style-type: none"> To achieve 2-way traffic and accommodate more pick-up/drop-off To reduce impacts to mature trees
<i>Added a bend in the 10th Avenue</i>	<ul style="list-style-type: none"> To avoid significant mature tree removals

Design Change	Rationale
<i>travel lanes between Heather St and Cambie Street</i>	between Heather St and Ash Street

The following impacts are the result of these design changes:

- Longer north-south pedestrian crossings at Willow Street, Heather St, and Ash Street
- People walking and biking on the north side of 10th Avenue have an additional street crossing at Heather St
- No reduction of traffic is expected on Heather St
- Requirement of sidewalk statutory right-of-way (SRW) agreements between the City, VCH, and PHSA, which will be governed by Council policy related to Greenway Type 3 ROW Agreement

Final Recommendations

The following is a list of the 10 specific action items that staff recommend in order to achieve the goals for the 10th Avenue Health Precinct (see **Appendix A** for an illustration of the updated design concept).

Action 1: Create “Hospital Zone” signage, pavement markings, and other treatments, reinforced through a road user education campaign

Recommendation: In collaboration with Health Precinct stakeholders, develop a consistent campus brand and messaging, including clear and consistent wayfinding signage to key destinations for people walking, biking, and driving in the area, reinforced through an awareness and education program in collaboration with the Vancouver Police Department (VPD), BC Emergency Health Services (BCEHS), VGH, and others.

Rationale: Clearly delineating all gateways into the precinct from the surrounding arterial roads with clear and consistent messaging to all road users will better convey that people entering the area are in a “hospital campus” where there are vulnerable people crossing the street.

Feedback and Response: Many stakeholders and members of the public have emphasized that road users need to understand this area is special and that a culture shift is needed. Furthermore, there is concern that drivers are often lost, stressed and need support to find parking and health services in the area.

Staff have hired consultants to begin developing a Wayfinding & Messaging Plan for the entire 10th Avenue Health Precinct. The “Hospital Zone” messaging created through this process might include:

- Gateway treatments at entrances identifying the special nature of the area
- Paint and signage reminders to slowdown and be mindful of patients who may have visible or invisible impairments
- Special intersection surface treatments
- Fully accessible and improved pedestrian crossing at all intersections, and raised crosswalks where feasible

Action 2: Improve safety and comfort for patients and other vulnerable pedestrians by installing new sidewalks, shorter crossings, marked crosswalks, lighting, and other improvements

Recommendation and Rationale: Numerous street crossing and mid-block design treatments are recommended along 10th Avenue to improve the safety and comfort for people walking, especially vulnerable pedestrians:

Design Element	Rationale
<i>Reconstruct heaving sidewalks and complete the widening of south sidewalk</i>	<ul style="list-style-type: none"> To level sidewalks, making them more accessible for pedestrians with mobility issues To help complete the sidewalk details of the Mount Pleasant Wellness Walkways plan and support VGH in completing final sidewalk improvements for 10th Avenue specified in the VGH Master Plan
<i>Raise the intersections at Willow Street and Heather St to sidewalk height, as well as a pedestrian crossing at Laurel St</i>	<ul style="list-style-type: none"> To help flatten street crossings, making it easier for pedestrian with mobility issues to cross To slow motor vehicle traffic through unsignalized intersections To discourage people driving from taking 10th Avenue as a shortcut
<i>Install a new accessible full traffic signal at Ash Street/10th Avenue</i>	<ul style="list-style-type: none"> To improve comfort and clarify right-of-way for people walking, biking, and driving through the intersection To help manage high traffic volumes at Ash Street
<i>Install corner bulges and pedestrian refuges where feasible</i>	<ul style="list-style-type: none"> To improve sightlines at corners To shorten Oak Street pedestrian crossings To provide safe areas for people waiting to cross the street
<i>Upgrade the Oak Street/10th Avenue traffic signal to separate the signal phases for people driving westbound from the signal phase for people walking or biking east-west</i>	<ul style="list-style-type: none"> To eliminate conflicts between turning motorists and people crossing Oak Street by foot To improve the safety of this intersection
<i>Clearly paint all crosswalks and install improved signage</i>	<ul style="list-style-type: none"> To provide better clarity to all road users on where to expect each other To remind people driving or biking that they are required to yield to crossing pedestrians

Design Element	Rationale
<i>Install special bikeway yield paint and signage at pedestrian crossings next to passenger loading zones, where the bikeway will also narrow to single-file</i>	<ul style="list-style-type: none"> To notify people biking that they are to yield to crossing pedestrians
<i>Install at least 15 new benches</i>	<ul style="list-style-type: none"> To provide more space for visitors and patients to rest or relax, particularly those with mobility issues who require frequent rests, complementing the roughly 25 existing benches on private property along the corridor
<i>Complete the 10th Avenue lighting upgrades, including improving intersection lighting and installing pedestrian-scale lighting</i>	<ul style="list-style-type: none"> To improve existing street lighting levels that do not currently meet Illuminating Engineering Society (IES) guidelines To complete pedestrian-scale lighting on the south side of 10th Avenue To upgrade lighting infrastructure on 10th Avenue in the Health Precinct, which is relatively old

Feedback and Response: Throughout the engagement process, the Health Precinct stakeholders and public have repeatedly indicated that existing pedestrian conditions on 10th Avenue are poor and overdue for maintenance, citing several locations with heaving sidewalks, uneven asphalt ramps, and inadequate lighting. Of all the 10th Avenue improvements proposed at Public Open House events in April 2016, design elements aimed at improving the safety and comfort for people walking were the most supported (70% support) and raised the least amount of concern. Since that open house, City staff have worked in collaboration with several stakeholder groups and advisory committees to refine the recommendations for pedestrian realm improvements. Feedback on these improvements has continued to be positive and they are central to the updated street improvement recommendations.

Action 3: Enhance pick-up/drop-off areas for patients, including longer raised passenger zones in front of the Eye Care Centre and Mary Pack Arthritis Centre

Recommendation: Expand the two existing passenger zones on 10th Avenue that serve the Mary Pack Arthritis and Eye Care Centres by re-purposing some on-street meter parking. These passenger zones will include the following elements:

- Raised pick-up/drop-off stopping area on 10th Avenue, flush with the sidewalk and bikeway
- Wide landing areas for people to comfortably enter/exit their vehicles
- At least doubling vehicle pick-up/drop-off space on 10th Avenue (including one additional space on each of the Laurel and Willow side streets, next to 10th Avenue)
- Sheltered seating areas
- Extra provisions to encourage safe yielding behaviour of people biking

Rationale: These two older buildings have parkades that do not have enough clearance for larger vans and the slope of the side streets adjacent to both buildings is too extreme to provide accessible pick-up/drop-off. As such, until these buildings redevelop it is important that some space be provided for passenger pick-up/drop-off on 10th Avenue.

To reduce conflicts between people driving in and out of these passenger zones and people biking through the corridor, the protected bike lane would be built between the passenger zone and the sidewalk. This design approach is based on design best practices and reflects the approach taken in several other cities as well as at several of Vancouver's existing protected bike lanes at passenger loading zones and bus stops.

Feedback and Response: These passenger zones received a lot of attention during stakeholder engagement events, with many participants concerned about vulnerable pedestrians having to negotiate crossing a protected bike lane after being dropped off or prior to being picked up. Given the 10th Avenue passenger zones are busy and frequently used by people with mobility or vision challenges, staff are proposing to include additional measures to improve conditions at these 10th Avenue passenger zones beyond the typical design seen elsewhere in Vancouver and other cities.

Feedback	Response
<i>Need curb cuts/ramps for people with mobility issues to access passenger zones</i>	The proposal is to raise the vehicle space such that it is flush with the bikeway and sidewalk, thus eliminating the need for ramps, similar to the on-street parking on Carrall St.
<i>Existing passenger zones will be too short if on-street parking is removed</i>	Staff are recommending lengthening the proposed passenger zones to approximately double their current length, as well as adding an additional space on both Laurel St and Willow Street.
<i>3 minutes is not enough time when escorting someone to the waiting area, and people need a convenient place to sit and wait for pick-up</i>	Staff propose to increase the amount of time allowed in each passenger zone to respond to the needs of the area. The design also includes spaces on both Laurel St and Willow Street for SPARC BC parking permit card holders to wait up to 30 minutes.

Feedback	Response
<i>People biking are unlikely to respect the needs of pedestrians crossing the bikeway</i>	<p>Staff are in the process of finalizing the final design recommendations for features at the pedestrian crossings, beyond what is current City practice. These might include signage and paint to reinforce that people biking are expected to yield to crossing pedestrians. The design of the bikeway alongside these passenger zones narrows it to a single-file width to slow speeds and help encourage better yielding behaviour.</p> <p>People biking westbound past these two passenger zones are travelling uphill and, as a result, currently are travelling relatively slowly (averaging 16.5 km/h). Furthermore, generally the peak hours of the bikeway and passenger zones do not coincide.</p>

Action 4: Ensure convenient parking is available for patients with mobility challenges, while collaborating with health partners to improve the area's general visitor parking

Recommendation: Pursue the following parking initiatives as part of the 10th Avenue project:

- Install at least 11 metered disability parking spaces along 10th Avenue
- Support VCH request to temporarily delay the full delivery of the Willow Pedestrian Corridor in order to maintain disability parking spaces adjacent to the Blusson/ICORD building until a long-term plan is resolved
- Support PHSA in expediting their outstanding obligation to install a surface parking lot at the northwest corner of 10th Avenue and Ash Street with at least 116 parking spaces

Rationale: Following the third round of Public Open House events in November 2016, health service and accessibility stakeholders still had significant concerns about the supply of convenient parking adjacent to health services for priority patients in the area. Although overall the precinct's disability parking supply was observed to only be 75% full during peak hours (9am to 4pm), there are several old and new health service buildings near 10th Avenue with constrained parking options. An hourly 2-day survey of the regular metered spaces along 10th Avenue found that 4 to 8 spots were typically being used by SPARC BC parking permit card holders, suggesting there is latent demand for disability parking in the area. Executives with the Health Partners have agreed in principle through the collaborative process to grant the City statutory right-of-way (SRW) where required in order to create sufficient space for some metered disability parking on 10th Avenue while also helping the City to maintain many of the street's mature trees. These SRWs will be governed by Council policy related to Greenway Type 3 ROW Agreement.

With the proposed parking removals from 10th Avenue, it became apparent that the pending occupancy of the Segal building would introduce challenges with access between disability parking and the Blusson building as this would remove the disability stalls to the east of the Blusson building. Staff are supporting a VCH request to retain several of these stalls, while

eliminating vehicle access from 10th Avenue. This requires a minor amendment to the development permit for the Segal building, which is in progress.

Lastly, as a condition of the development of the BCCRC building, an adjacent surface parking lot at the northwest corner of Ash Street and 10th Avenue was to have been delivered by January 2006. This condition was put in place since the underground parking provided in the BCCRC building was less than the rezoning required.

Feedback and Response: The existing on-street meter parking is relatively inexpensive and is frequently full during peak hours. Nevertheless, many members of the public anecdotally mentioned repeatedly circling around the precinct by car to look for on-street parking, especially when they were with someone who needed convenient access. At stakeholder workshops, many participants echoed a feeling that, due to inadequate on-site parking at some health services in the precinct, the on-street parking was an important asset for visitors with mobility issues and that these needs should be valued over tree retention. In light of the considerable stakeholder interest in retaining some on-street parking close to health services for priority patients as well as the sidewalk SRWs offered by VCH and PHSA, City staff recommend re-balancing the trade-offs presented to the public in November 2016. This includes adding some disability parking to 10th Avenue, which may require the removal of additional street trees.

The issue of relocating disability parking spaces from the east side of the Blusson building to the south side of the Segal building was not initially discussed as part of the 10th Avenue Corridor project since the issue is the result of VCH commitments and Development Permit Board decisions. However, the road work proposed for 10th Avenue was perceived by many as exasperating this forthcoming issue. Their concern was that the relocation is not feasible for their patients and research participants, many of whom have severe mobility issues. Furthermore, it now appears that the Segal building tenants will likely have different operating hours than Blusson tenants, meaning this access route would sometimes be unavailable while the Blusson building is operating. The interim proposal described above was developed in collaboration with Blusson tenants and VCH representatives, who agree with this interim solution.

There is a general consensus from stakeholders and the public that the health services in the precinct are significantly impacted by an undersupply of parking. While paving the empty site at Ash Street and 10th Avenue will not solve the problem, it will result in a net parking increase for the area. Although there will be additional capital funding required to ensure an accessible connection to 10th Avenue, staff estimate that investment could be recovered in a short period of time. The City is currently supporting PHSA in helping to build this parking as quickly as possible, which does not require rezoning.

Action 5: Improve alternate bike routes to 10th Avenue, including 14th Ave, Off Broadway (e.g. 7th Ave), and a north-south bike route west of Oak Street, to allow people reasonable alternatives to more easily bypass the Health Precinct

Recommendation: In advance of changes to 10th Avenue in the Health Precinct, install a new interim bike route on 14th Ave as well as a new interim north-south bike route west of the Health Precinct on Alder St. Staff recommend engaging nearby businesses and residents to finalize the long-term location of the north-south bike route (between 7th Ave and 14th Ave) west of Oak Street, including considering other nearby streets. Furthermore, City staff recommend prioritizing plans for an all-ages-and-abilities (AAA) cycling facility on 14th Ave and improvements to the Off Broadway bike route within the City's 5-year bike network plan. This recommendation includes wayfinding signage on 10th Avenue that promotes these alternative connections.

Rationale: Improving the surrounding bike network, combined with clear wayfinding signage, gives those biking to destinations outside the Health Precinct alternative routes. This is especially relevant for those biking east on 10th Avenue whose only nearby north-south bike route is Heather St, which requires riding through the Health Precinct. Improvements to the Off Broadway route will be explored in addition to the recent upgrades to the Oak Street & 7th Ave intersection, which will significantly improve biking conditions on this parallel route. By installing interim conditions on these alternate routes ahead of 10th Avenue construction, it offers options for people biking to avoid construction while also helping to promote these new alternate routes.

Feedback and Response: Over the course of consultation, many members of the public and stakeholders have asked if the 10th Avenue bike route could be diverted around the hospital. The recommendation is to improve the surrounding bike network to help reduce some of the pressure from 10th Avenue by offering comfortable alternate routes. However, even with improvements to the surrounding bike network, rerouting the 10th Avenue bike route is *not* a viable option, since:

- There will always be high volumes of people biking on 10th Avenue because it provides a direct, continuous, and relatively flat connection to many destinations across much of the city and through Central Broadway, BC's highest employment centre outside the downtown core. Furthermore, 63% of people surveyed biking on 10th Avenue indicated they were either heading to a destination in or just outside the Health Precinct.
- The City does not exclusively ban cycling from streets—a detour would be advisory and would require people biking on 10th Avenue to climb a steep hill, cross a busy street twice (e.g. 12th Ave or Broadway), and travel out of their way. Many people biking through the area would likely choose not to use the detour.
- Nearby parallel streets are either already too busy with no opportunity to add bike lanes (e.g. 12th Ave or Broadway) and/or too far from destinations (e.g. 7th or 13th Ave)

For these reasons, the 10th Avenue bike route has been a key cycling connection for many years, even before it was officially added to the City's bike network in 2004. There will always be many people choosing to bike on 10th Avenue, thus it is incumbent on the City to improve the safety and comfort for all road users in this hospital precinct.

Action 6: Create an environment where people of all ages and abilities feel safe and comfortable cycling by installing raised uni-directional protected bike lanes on both sides of 10th Avenue between Oak Street and Cambie Street, improved street crossings, and treatments to encourage slower speeds

Recommendation: Install raised protected uni-directional bike lanes on both sides of 10th Avenue.

Rationale: Current motor vehicle volumes are much higher than City practice for sharing the roadway between people biking and driving, which is exacerbated by the high volume of delivery trucks. Under these conditions, it is not surprising that roughly two-thirds of respondents to an intercept survey on 10th Avenue indicated they would not feel comfortable biking on 10th Avenue through the Health Precinct with a young child. Since consultants estimate that between 65% - 85% of the observed traffic on 10th Avenue is related to local health services, the majority of vehicle traffic cannot be diverted to other streets. Thus, to improve the safety and comfort for people biking through the precinct, staff propose creating separate space for people biking from that of people driving. The recommended raised bike lane will include the following features:

Design Element	Rationale
<i>A raised one-way protected bike lane on either side of 10th Avenue (uni-directional)</i>	<ul style="list-style-type: none"> To avoid safety concerns at intersections, driveways, and passenger zones as compared to the bi-directional design options (a two-way bikeway on one side of 10th Avenue) To discourage people driving from stopping or parking in a painted bike lane To improve the safety and comfort of people biking in the precinct given high traffic volumes
<i>Short ramps and/or roll curbs at driveways</i>	<ul style="list-style-type: none"> To slow down and increase awareness of people driving across the bike lane at driveways
<i>Green paint and bike stencils at all driveway and intersection crossings</i>	<ul style="list-style-type: none"> To increase awareness of drivers crossing the bikeway
<i>Raise the intersections at Willow Street/10th Avenue and Heather St/10th Avenue to sidewalk height, as well as a pedestrian crossing at Laurel St</i>	<ul style="list-style-type: none"> To slow motor vehicle traffic through unsignalized intersections Discourage people driving from using 10th Avenue as a shortcut
<i>Install a new full traffic signal at Ash Street/10th Avenue</i>	<ul style="list-style-type: none"> To improve comfort and clarity on right-of-way for people walking, biking, and driving through the intersection To help manage high traffic volumes at this intersection

Design Element	Rationale
<i>Upgrade the Oak Street/10th Avenue traffic signal to separate signal phases for people driving westbound from the signal phase for people walking or biking east-west</i>	<ul style="list-style-type: none"> • To eliminate conflicts between turning motorists and people crossing Oak Street by bike • To improve the safety of the 10th Avenue intersection
<i>Install special bikeway yield paint and signage at pedestrian crossings next to passenger loading zones, where the bikeway will also narrow to single-file</i>	<ul style="list-style-type: none"> • To notify people biking that they are to yield to crossing pedestrians
<i>Complete the 10th Avenue lighting upgrades, including improving intersection lighting</i>	<ul style="list-style-type: none"> • To improve existing street lighting levels that do not currently meet Illuminating Engineering Society (IES) guidelines • To upgrade lighting infrastructure on 10th Avenue in the Health Precinct, which is relatively old

Feedback and Response: From people who often get around by bike, the feedback with respect to introducing a raised protected bike lane on this portion of the 10th Avenue bike route has been very positive. However, some people who rarely travel by bike or who visit the precinct from further away have expressed concern. Generally, these concerns have less to do with the raised bike lane itself, and more to do with the resulting impacts of removing on-street parking. Staff have been working hard with stakeholders to address these impacts, which are discussed throughout this report.

Of the three options presented to the public at Public Open Houses in April 2016, City staff's recommended uni-directional design approach had stronger support than the two bi-directional options, which placed people biking in both directions on one side of the street. This support was primarily due to the conflicts that the bi-directional options would introduce either at driveways, intersections, or passenger zones.

Action 7: Convert 10th Avenue to one-way for westbound vehicles from Cambie Street to Ash Street to reduce vehicle volumes and maintain the tree canopy east of Ash Street

Recommendation: Convert the block of 10th Avenue between Ash Street and Cambie Street to one-way westbound for motor vehicles and design the south side bike lane (left side) in this block to be wide enough for an emergency vehicle to pass an obstruction in the single westbound travel lane.

Rationale: The proposed one-way block of 10th Avenue is oriented westbound such that access for people driving to VGH ER remains as direct as it is today, regardless of where a driver may be coming from. This allows most mature trees on the block to be maintained while also encouraging people driving eastbound to use 12th Ave or Broadway rather than driving through the health precinct.

Typically drivers would pull over for emergency vehicles by pulling to the right. As such, staff recommend widening the bike lane on the south side (left side) to be wide enough to accommodate an emergency vehicle in the bike lane to pass any obstruction in the travel lane, such as drivers queued at the proposed traffic signal at Ash Street/10th Avenue.

Feedback and Response: The final recommended design approach was developed in collaboration with representatives from BC Emergency Health Services (BC EHS) and Vancouver Fire and Rescue Services (VFRS). Both groups recognize the challenges with existing conditions on 10th Avenue in the Health Precinct and hope that the final recommendations will improve their ability to service the Health Precinct.

Action 8: Enhance accessible transit options by installing new bus stops for the #17 bus route at Oak Street and 10th Avenue and improving HandyDART and patient transfer access

Recommendation: Repurpose meter parking on the east side of both Willow Street and Laurel St to provide space for HandyDART and other pick-up/drop-off needs as follows:

- Convert a single meter parking space at both the northeast corners of Laurel St/10th Avenue and Willow Street/10th Avenue to passenger loading.
- Convert meter parking spaces on the east sides of both Willow Street and Laurel St to priority vehicle staging areas, where HandyDART, patient transfer vehicles, and SPARC BC parking permit card holders can wait for up to 30 minutes.

Furthermore, in coordination with Coast Mountain Bus Company (CMBC) and on-going development at 984/988 W Broadway, alter the #17 bus stops near VGH as follows:

- Install a new northbound #17 accessible bus stop with a shelter and bench on Oak Street at the south side of 10th Avenue.
- Relocate the southbound #17 bus stop on Oak Street at W Broadway to an accessible stop on Oak Street at the south side of 10th Avenue.
- These permanent bus stop changes would result a net loss of 3 metered and 2 residential permit parking spaces on Oak Street.

Rationale: Although the Laurel and Willow side streets have a significant slope (5% - 7%), many patient delivery vehicles, such as HandyDART and Hospital Transfers (SN Transport Ltd), deploy rear-loading ramps. At these two recommended additional passenger loading spaces, rear-loading ramps would line up well with the sidewalk's corner ramps next to the Eye Care Centre and Mary Pack Arthritis Centre. In addition, after dropping off clients/patients, HandyDART and patient transfer drivers often need time to arrange their next dispatch or space to wait for their next pick-up. Currently, this often happens in the passenger zones on 10th Avenue or in the disability parking on the east side of the Blusson building, both of which are priority locations that should be kept free for patient access. These "priority vehicle staging areas" would give HandyDART drivers or anyone with a SPARC BC parking permit card space to stop for an extra 30 minutes, thereby freeing up the passenger zones and disability parking for patient access.

For visitors who prefer to take regular public transit but who struggle with walking up or down steep grades, the proposed new accessible #17 bus stops at 10th Avenue would give the option of accessing general public transit at the same grade as 10th Avenue.

Feedback and Response: In discussions with HandyDART and SN Transport representatives, the proposed re-purposing of parking spaces on Laurel St and Willow Street has been well-received. In collaboration with these stakeholders, staff have made a best guess at how large to make these side-street priority vehicle staging areas and passenger loading zones, but as part of the project monitoring commitments, the use of these spaces will be monitored and their designation adjusted based on demand. There was some concern that the grades on the side streets would be too steep for any passenger loading. However, staff tested one of the proposed corner locations with SN Transport representatives and a typical rear-loading vehicle. The feedback was positive as the rear loading ramp landed relatively close to the 10th Avenue sidewalk ramp and it was acknowledged that this alternative passenger loading space would be a viable option for many of their patient deliveries.

The proposed #17 bus stop changes came out of conversations with accessibility stakeholders who raised concern in meetings and workshops over the difficulty some face in accessing VGH by transit due to steep grades between 10th Avenue and Broadway. The proposed new stops have been well received, although many suggest that a longer-term solution for accessible transit access to VGH needs to be explored. CMBC representatives have agreed in principle to the change, but the design details of the change and impacts to adjacent bus stops are still being resolved by staff.

Action 9: Facilitate local resident access by retaining permit parking on the 900 10th Avenue block, where possible, and reassign this block to the Oak West Residential Parking Permit Zone

Recommendation: Retain 10 residential permit parking spaces on 10th Avenue, restore residential permit parking on the 2500 block of Oak Street that was removed for a temporary bus stop, and convert 3 meter parking spaces on the west side of the 2500 block of Laurel St to residential permit parking. Furthermore, switch the residential permit parking on the 900 block of 10th Avenue and 2500 block of Laurel St and Oak Street to be part of the Oak West Residential Parking Permit Zone.

Rationale: The 900 block of 10th Avenue has 3 older rental buildings, with little or no on-site parking. By reallocating meter parking spaces to residential permit spaces, the total recommended reduction in residential permit spaces on the block is now from 21 to 17 spaces. By switching these spaces to belong to the Oak West Residential Parking Permit Zone, residents will likely find it more convenient to find parking spaces outside their block rather than having to access the VGH Residential Parking Permit Zone permit south of 12th Ave as is currently required.

Feedback and Response: The re-purposing of these parking spaces has been discussed both at stakeholder meetings as well as with the public in November 2016. Local residents have some concerns about the change, but many indicated support for the need to address existing problems on 10th Avenue. Staff have updated their recommendation to help reduce the parking impact to these local residents. As part of the project monitoring commitments, the use of these parking spaces will be monitored, possibly resulting in adjustments to their designations based on demand.

Action 10: Commit to ongoing improvements and issue resolution, including establishing a 10th Avenue Health Precinct Evaluation Committee to evaluate the project's impacts following implementation and recommend spot improvements

Recommendation: Establish a 10th Avenue Health Precinct Evaluation Committee, including representatives from institutions such as the hospital and other health agencies, the Persons with Disabilities Advisory Committee, the Seniors' Advisory Committee, the Active Transportation Policy Council, the Arthritis Patients' Advisory Committee, and UBC to review the performance of the Health Precinct portion of 10th Avenue following construction completion.

Rationale: Based on significant public and stakeholder feedback since the project began, staff are confident that the final recommended design will be a significant improvement over existing conditions. However, given the scale of changes proposed to the street, it is difficult to predict all possible outcomes and inevitably some adjustments may be required, as is common with all street design projects.

Feedback and Response: The recommendation was developed through stakeholder workshops and has been very well received. In light of the significant level of stakeholder involvement in the project, participants are keen to see positive results and have generally welcomed the opportunity to continue to be involved in shaping the neighbourhood.

Emergency Services Access Implications

Since VGH ER access is on 10th Avenue, between the two legs of Laurel St, it is critical that the project meet the needs of ER access. Staff have made it a top priority since the early stages of the project to ensure ER access would remain intuitive and efficient for everyone. As explained under Action 7, the conversion of the block of 10th Avenue between Ash Street and Cambie Street to one-way for motor vehicles was chosen to be westbound to ensure direct access to VGH ER. Furthermore, the south side bike lane (left side) in this one-way block is designed with a lower curb and wide enough for an emergency vehicle to use the bike lane to pass an obstruction in the single westbound travel lane.

The primary ambulance access routes to VGH ER, which are the two legs of Laurel St and Oak Street, will not have vertical deflections (e.g. raised crosswalks and intersections) since ambulances carrying patients are especially sensitive to bumps in the roadway. See Action 2 for details related to the proposed raised crossings & intersections.

The recommended design approach was refined in collaboration with representatives from both BC EHS and VFRS. Both groups have commented on challenges with existing conditions on 10th Avenue in the Health Precinct and hope that the final recommendations will improve their ability to service the Health Precinct, as there would be less friction on 10th Avenue (with less parking manoeuvring and people no longer biking in the travel lane) and more predictable behaviour by all users of the street. BC EHS and VFRS representatives are supportive of continuing to work with City staff in refining the detailed design changes proposed at both ER driveways and monitoring the outcome.

Safety Implications

The Vancouver Cycling Safety Study (2015) highlighted that the 10th Avenue bike route has a high number of reported cycling collisions relative to other corridors. City staff carefully reviewed all past collisions documented in ICBC data that involved people walking or cycling on this stretch of 10th Avenue in the Health Precinct. There were 69 vehicle collisions reported that involved people walking or cycling in the past 7 years (2009-2015), of which 25% involved pedestrians. The recommended design would have eliminated or mitigated 70% - 90% of those specific conflicts, including the 1/4 related to on-street parking and 1/4 related to turn conflicts at Oak Street and 10th Avenue.

Parking Implications

There are approximately 4,400 general parking spaces in the 10th Avenue Health Precinct, of which the City manages 173 on-street metered spaces (4% of the total supply). Given the convenience and lower price of these on-street spaces for patients and visitors, they are heavily used during weekday business hours and are not reliable places to find parking immediately adjacent to destinations during these busy periods. Recognizing that patient access to the precinct is the top priority, the following table summarizes the parking changes in the proposed design. Including the new surface parking lot at Ash Street and 10th Avenue, the net result is an increase of parking in the precinct by at least 35 visitor parking spaces, including at least 10 additional metered disability parking spaces on 10th Avenue. Following implementation, City staff will be monitoring parking use and adjusting based on demand and in consultation with stakeholders.

Parking Type	Existing	Proposed
<i>Passenger loading spaces and priority vehicle staging area</i>	8	20
<i>Meter parking on 10th Avenue - west of Ash Street</i>	56 + 1 disability/SPARC	0 + 11 disability/SPARC*
<i>Meter parking on 10th Avenue - east of Ash Street</i>	21	2
<i>Meter Parking on side streets</i>	80	62
<i>Residential permit parking surrounding the 900 block</i>	21	17
<i>New surface parking lot at Ash Street / 10th Avenue</i>	-	116+ (incl. disability parking)
Total	187	228+

* The exact number of disability parking spaces included in the final design will depend on the dimensions of the disability parking spaces, the size of adjacent passenger zones, and conditions in the adjacent boulevard. These details will be finalized in collaboration with Health Precinct stakeholders, including accessibility stakeholders.

Tree Canopy Implications

There are many health and environmental benefits associated with trees such as their ability to clean the air of particulate matter; absorb carbon dioxide to mitigate climate change; manage rainwater; provide for wildlife habitat; provide access to nature; provide shade and perhaps most importantly in this situation, reduce people's stress levels.

New Plantings: 50

Tree planting is an important component of all street improvement projects and the proposed 10th Avenue design includes space for approximately 50 new trees, which would be selected and planted based on current best practices to help avoid the street maintenance problems created by the area's existing trees. These new trees will help to support the City's Urban Forest Strategy goals to protect, grow, and maintain a healthy and resilient urban forest for future generations, and the City's Greenest City Strategy tree canopy and planting targets.

Possible Tree Removals

It was clear from early rounds of public engagement that the public value the existing mature trees lining 10th Avenue as a signature element of the street. Since the initial stages of developing design concepts for the 10th Avenue Corridor project, staff have been working to minimize impacts to these mature trees. There are currently 121 trees on the corridor, 71 of which are mature and healthy. Staff expect the majority of these will be retained with the new design and with the support of external consultants, City staff plan to further analyze existing conditions and future plans surrounding sensitive trees, seeking to retain them if possible by adjusting designs and applying construction best practices under the supervision of a certified arborist.

A significant aspect of the City's recommendation as presented to the public in November 2016, with one-way vehicle travel from Cambie Street to Willow Street, was its potential to retain the majority of the mature trees along 10th Avenue by consolidating vehicle circulation and limiting the amount of impermeable surface area. However, through collaboration with VCH and BCCA it became clear that both institutions felt strongly that this change to vehicle circulation would result in an unacceptable impact on their ability to deliver critical health services to patients, especially those with mobility issues. As such, City staff have worked closely with Health Precinct partners to re-evaluate these trade-offs to prioritize two-way vehicle travel between Oak Street and Ash Street and provide more disability parking on 10th Avenue. To achieve this while still minimizing impacts to the existing tree canopy, VCH and PHSA have agreed in principle to secure sidewalk statutory rights of way on their private property to maintain as much of the existing tree canopy as possible.

Engineering staff have collaborated with Vancouver Park Board (VPB) staff and the VPB position on the Health Precinct tree impacts is as follows:

The American Elms along this corridor are substantial in size and age, and beautify this corridor while providing many environmental benefits. The trees to be removed range from being currently healthy with considerable life expectancy, to being already in decline and soon to be removed regardless. Engineering Transportation Design has engaged the Park Board in meaningful consultation on tree protection and retention, the result being that as many as possible good quality trees will be

retained successfully. The addition of 50 new street trees will enhance the corridor for many decades to come.

Construction and Phasing

Construction

City staff will work hard with construction crews to ensure that access to all buildings in the 10th Avenue Health Precinct is maintained during construction, although this will inevitably involve altering access routes as different construction phases proceed. Due to the street's constrained right of way, it will be challenging to maintain bicycle access in both directions on 10th Avenue throughout the entire duration of construction. Crews will work to ensure that any detours for people biking are safe and as close as possible to 10th Avenue, while adhering to Ministry of Transportation requirements, occupational health and safety regulations, and other constraints ensuring work can proceed in a safe and efficient manner.

Phasing

Due to the need to carefully manage construction and building access throughout construction, as well as limited funding, staff recommend a phased approach to construction. The first phase of construction will address some of the busier areas between Oak Street and Willow Street where there are more conflicts between different road users and where it's particularly hard for vulnerable pedestrians to cross the street. Staff are also recommending that the first phase include gateway treatments at both Cambie Street and Oak Street to message to all users entering the health precinct that they are entering a unique place where there needs to be a heightened awareness of vulnerable pedestrians. Staff have been working closely with Park Board arborist staff to make every effort to retain trees, however the first phase of construction will require removing or replanting 21 trees, of which five are mature and one is large and mature but unhealthy. All of the large, healthy American Elms would be retained in this phase of construction.

Interim pedestrian improvements will also be made along the corridor, such as pick-up/drop-off locations, to mitigate existing issues prior to completing the second phase of the project.

Funding for the remainder of the work will be sought in the next capital plan.

Related Issues

Financial

The proposed budget for the first phase of construction is estimated to be \$3 million and will be funded from the current approved Capital Budget for Active Transportation Corridors and Spot Improvements. This program is principally funded from development cost levies (DCL). Staff have applied for Translink funding and will continue to explore opportunities for Federal and Provincial contributions.

The completion of the first phase will span over 2017 and 2018. It is expected that \$1.9 million will be spent in 2017 and will be managed within the approved Engineering Services Annual Expenditure Budget. The remaining project expenditures will form part of the 2018 annual budget process.

Environmental

The actions proposed are in support of Transportation 2040 objectives which, taken together, are expected to reduce emissions, increase health, and have a positive effect on the environment.

CONCLUSION

The general sentiment heard through the engagement process was that 10th Avenue through the Health Precinct does not work well for anyone in its current form. This proposed design has been endorsed by the Health Precinct partners and staff believe the changes made to the recommended design over the course of the engagement process address the primary concerns raised by the city advisory committees, including the Seniors' Advisory Committee, the Persons with Disabilities Advisory Committee, and the Active Transportation Policy Council (see **Appendix F** and **G** for specific responses). Staff will be meeting with all three committees in advance of presenting the project to Council. The new design is expected to improve the area for all road users, particularly vulnerable pedestrians, people accessing the health precinct by vehicle, and people biking.

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Recommended Health Precinct 10th Ave Design Concept Drawings

10th Ave Health Precinct (Oak St to Cambie St) Design Highlights

New Since Last Open House (Nov 2016)	Design Elements	Rationale
	Realign, reconstruct, and widen older sidewalks on 10 th Ave, including new pedestrian ramps	<ul style="list-style-type: none"> To improve accessibility for vulnerable people walking in the precinct To eliminate sidewalk heaving from tree roots To meet the Vancouver General Hospital Master Plan public realm vision
	Install corner bulges and pedestrian refuges where feasible	<ul style="list-style-type: none"> To improve sightlines at corners To shorten Oak St pedestrian crossings To provide safe areas for people waiting to cross the street
	Complete the 10 th Ave lighting upgrades, including improving intersection lighting and installing pedestrian-scale lighting	<ul style="list-style-type: none"> To improve existing street lighting levels that do not currently meet industry illumination guidelines To complete pedestrian-scale lighting on the south side of 10th Ave To upgrade lighting infrastructure on 10th Ave in the Health Precinct, much of which is relatively old
<input checked="" type="checkbox"/>	Bend some segments of sidewalk onto VCH or PHSA private property, within a statutory right-of-way	<ul style="list-style-type: none"> To retain mature trees To accommodate sufficient width for passenger loading zones and disability parking To accommodate 2-way traffic on 10th Ave as well as protected bike lanes
	Install 15 - 20 new benches on 10 th Ave	<ul style="list-style-type: none"> To provide more space for visitors and patients to rest or relax, particularly those with mobility issues who require frequent rests, complementing the roughly 25 existing benches on private property along the corridor
	Clearly paint all crosswalks and install improved signage.	<ul style="list-style-type: none"> To provide better clarity to all road users on where to expect each other To remind people driving or biking that they are required to yield to crossing pedestrians

New Since Last Open House (Nov 2016)	Design Elements	Rationale
	Shorten ramps and/or build roll curbs at driveways	<ul style="list-style-type: none"> To slow down and increase awareness of conflicts at driveways
	Install a raised one-way protected bike lane on either side of 10 th Ave (uni-directional)	<ul style="list-style-type: none"> To separate and clarify where all road users should be to improve comfort and safety for everyone To avoid safety concerns at intersections, driveways, and passenger zones as compared to the bi-directional design options (a two-way bikeway on one side of 10th Ave)
	Install special bikeway yield paint and signage at pedestrian crossings next to passenger loading zones, where the bikeway will also narrow to single-file	<ul style="list-style-type: none"> To notify people biking that they are to yield to crossing pedestrians
	Install green paint and bike stencils at driveway and intersection crossings	<ul style="list-style-type: none"> To increase awareness of drivers crossing the bikeway
<input checked="" type="checkbox"/>	<p>Make changes to on-street parking spaces:</p> <ul style="list-style-type: none"> Increase disability parking on 10th Ave from 1 space to 13 spaces Increase passenger loading and vehicle staging space from 8 spaces to 20 spaces Retain 62 meter parking spaces on side streets Remove 77 meter parking spaces from 10th Ave, and 18 metered spaces from side streets 116+ surface lot spaces added by Provincial Health Services Authority (PHSA) 	<ul style="list-style-type: none"> To prioritize the most vulnerable patient access to the precinct, including generous passenger zones, while slightly increasing the overall parking supply in the precinct To improve sightlines at intersections To reduce traffic on 10th Ave from people searching for parking To restore blocked crosswalks To reduce collisions between people driving and biking on 10th Ave

New Since Last Open House (Nov 2016)	Design Elements	Rationale
	Build new or improved tree boulevards, with room for 50 new trees	<ul style="list-style-type: none"> To help support the City's Urban Forest Strategy goals to protect, grow, and maintain a healthy and resilient urban forest for future generations To address the area's Wellness Walkway goals To reduce conflicts between people walking and biking
<input checked="" type="checkbox"/>	Remove 11 mature and healthy trees	<ul style="list-style-type: none"> To accommodate vehicles exiting the Vancity parkade, given the conversion of this block of 10th Ave to one-way To provide flat accessible sidewalks and address maintenance concerns To accommodate a new traffic signal at Ash St To accommodate the proposed bend in the travel lanes between Heather St and Cambie St, which helps to save several mature Elm trees at BCCA To accommodate the introduction of a uni-directional bike lane and maintaining loading zones
	Upgrade the Oak St/10 th Ave traffic signal to separate the signal phases for people driving westbound from the signal phase for people walking or biking east-west	<ul style="list-style-type: none"> To eliminate conflicts between turning motorists and people crossing Oak St by foot or by bike To improve the safety of this intersection
<input checked="" type="checkbox"/>	Reduce on-street residential permit parking spaces adjacent to the 900 W 10 th block from 21 spaces to 17 spaces	<ul style="list-style-type: none"> To accommodate other adjacent street uses (i.e. protected bike lanes, crosswalks and pedestrian refuges, dedicated left- and right-turn lanes at Oak St and street trees)
	New crosswalk treatments at Laurel St (west leg)	<ul style="list-style-type: none"> To enable pedestrians to cross more comfortably at these legal crosswalks To shorten pedestrian crossings on 10th Ave To provide safe areas for people waiting to cross the street To improve sightlines for all road users

New Since Last Open House (Nov 2016)	Design Elements	Rationale
<input checked="" type="checkbox"/>	Install special paint and signage at ER driveways	<ul style="list-style-type: none"> To improve awareness of people driving and biking through these two high-priority conflict points
	Raise the intersections at Willow St/10 th Ave and Heather St/10 th Ave to sidewalk height, as well as a pedestrian crossing at Laurel St	<ul style="list-style-type: none"> To slow motor vehicle traffic through these unsignalized intersections To provide street crossings that are more level for vulnerable pedestrians Discourage people driving from using 10th Ave as a shortcut
<input checked="" type="checkbox"/>	Postpone consideration of possible car-free space on Heather St north of 10 th Ave as part of VGH Master Plan update or nearby development	<ul style="list-style-type: none"> To reduce conflicts and anxiety between all road users crossing the intersection To orient the stop sign on 10th Ave to favour the dominant flow of people on 10th Ave To expand public green space, while still allowing laneway access from Broadway
	Install a new accessible full traffic signal at Ash St/10 th Ave	<ul style="list-style-type: none"> To improve comfort and clarity for people walking, biking, and driving through the intersection To help manage high traffic volumes at Ash St
<input checked="" type="checkbox"/>	Convert 10 th Ave to one-way westbound from Cambie St to Ash St, except for bikes	<ul style="list-style-type: none"> To provide room for protected bike lanes and to retain mature trees To eliminate conflicts between turning vehicles and people crossing Cambie St on foot and by bike To help traffic clam 10th Ave To maintain/improve efficient and intuitive access to Vancouver General Hospital Emergency Room entrance

The following design concept drawings highlight the key design elements agreed upon as a result of the Collaborative Engagement Process between the City, Vancouver Coastal Health (VCH), and BC Cancer Agency (BCCA). This includes illustrating the potential alignment of the sidewalk, bike lanes, curb, and crosswalks for each block between Oak St and Cambie St. As such, the drawings do not include all of the elements of the final design concept listed in the chart above, such as improvements to lighting, benches, shelters, pavement treatment and markings.

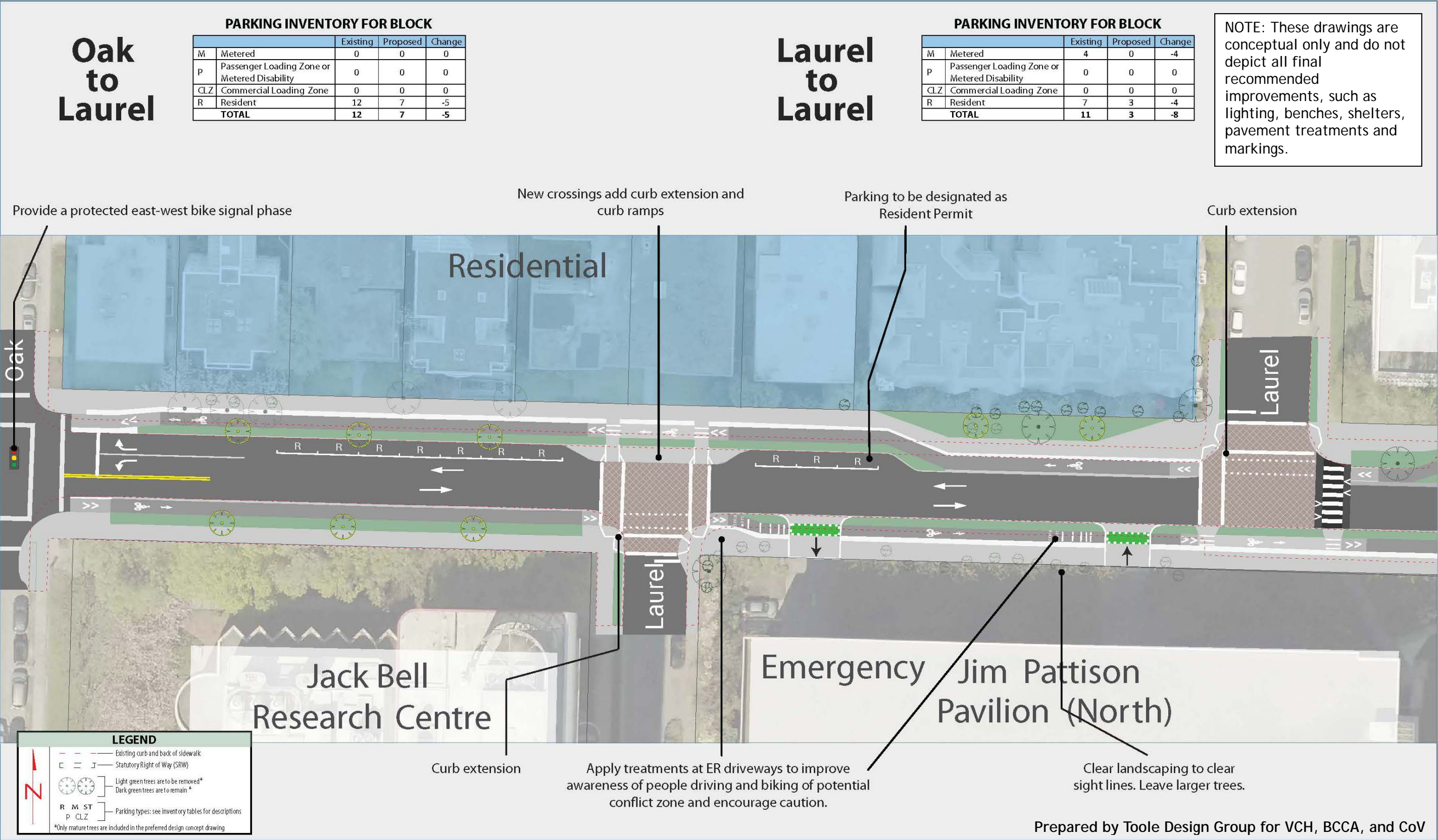


Figure 1. Oak St to Laurel St preferred design resulting from Collaborative Process with Health Partners

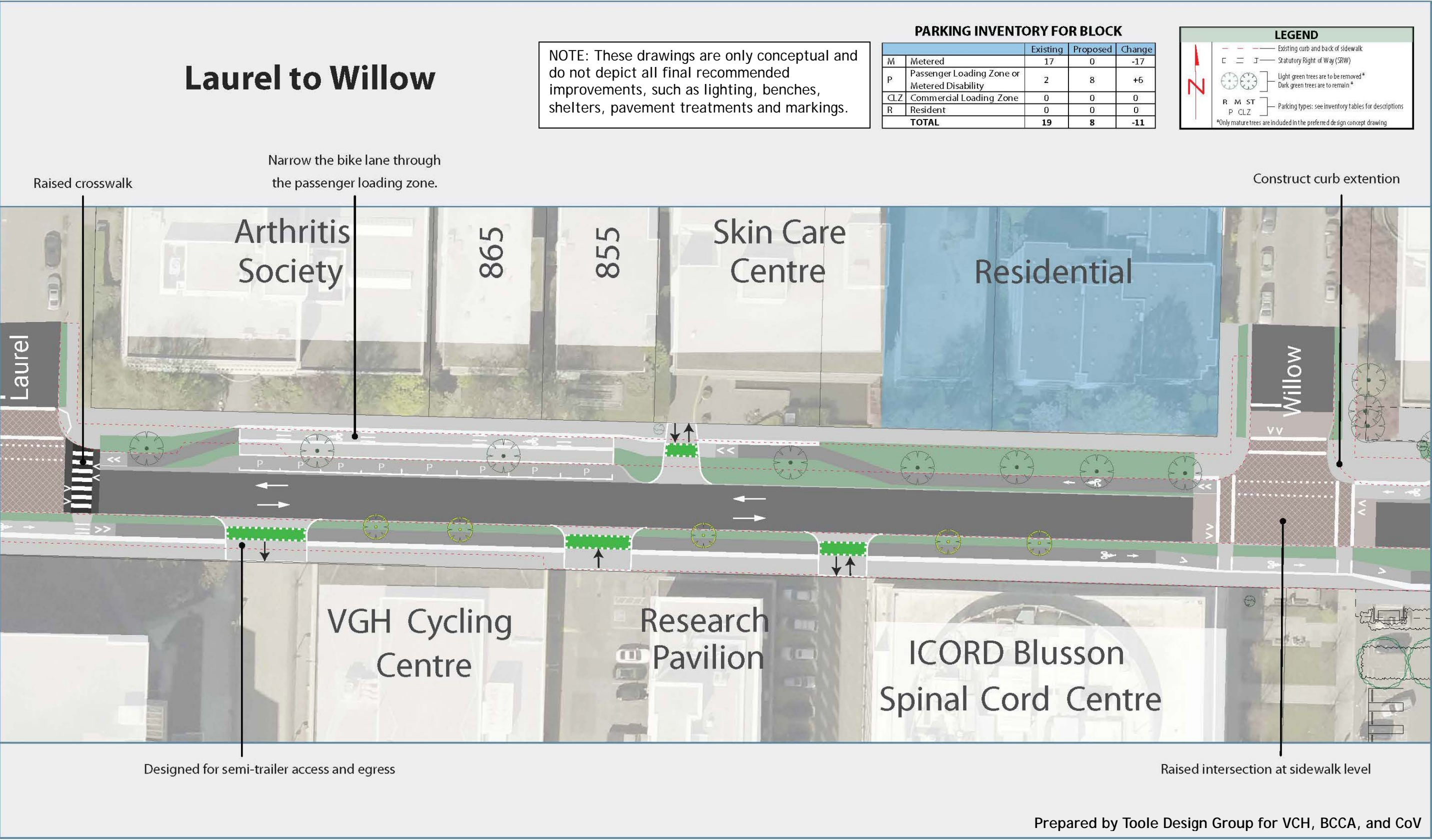


Figure 2. Laurel St to Willow St preferred design resulting from Collaborative Process with Health Partners

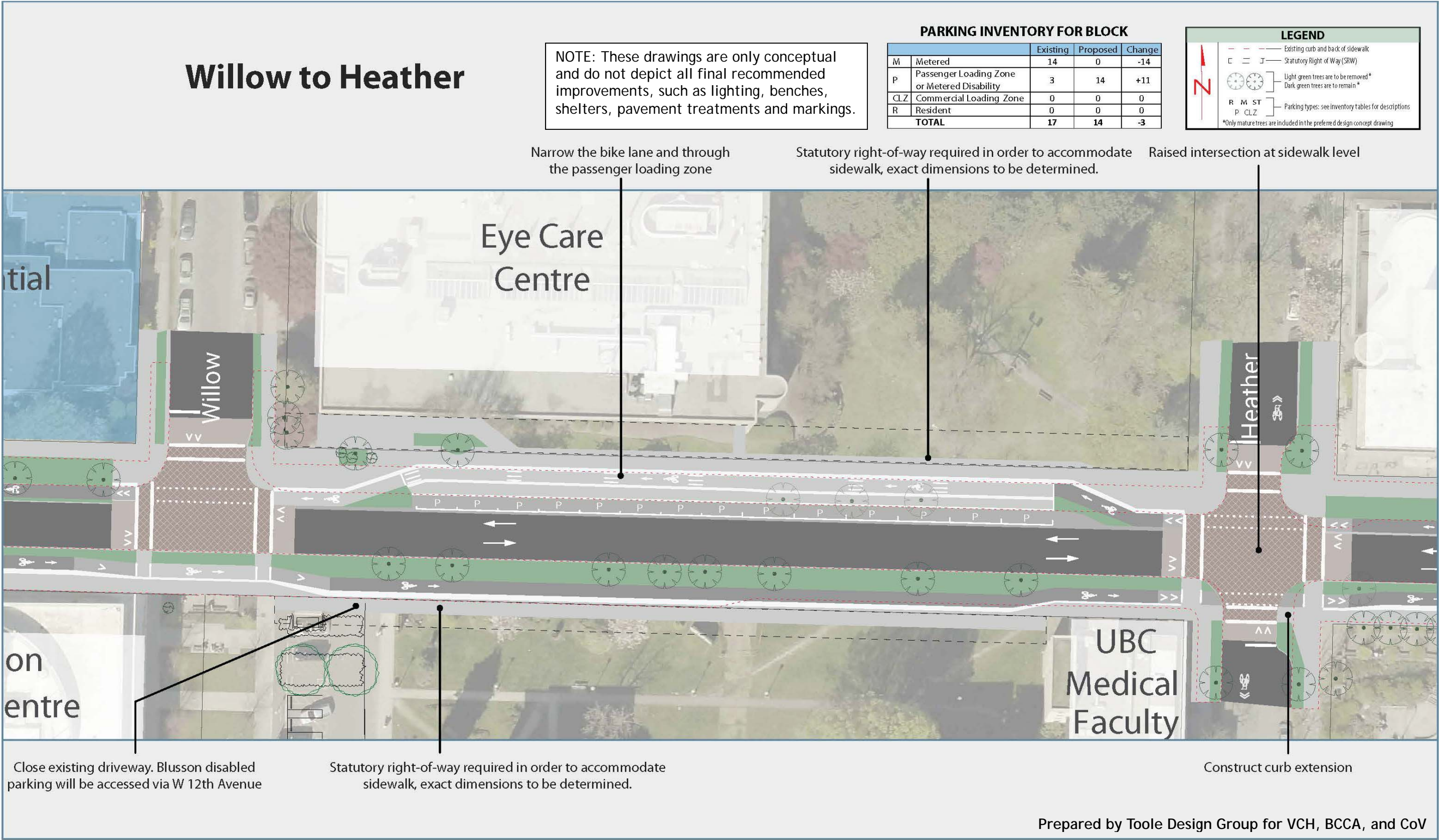


Figure 3. Willow St to Heather St preferred design resulting from Collaborative Process with Health Partners

Figure 4. Heather St to Ash St preferred design resulting from Collaborative Process with Health Partners

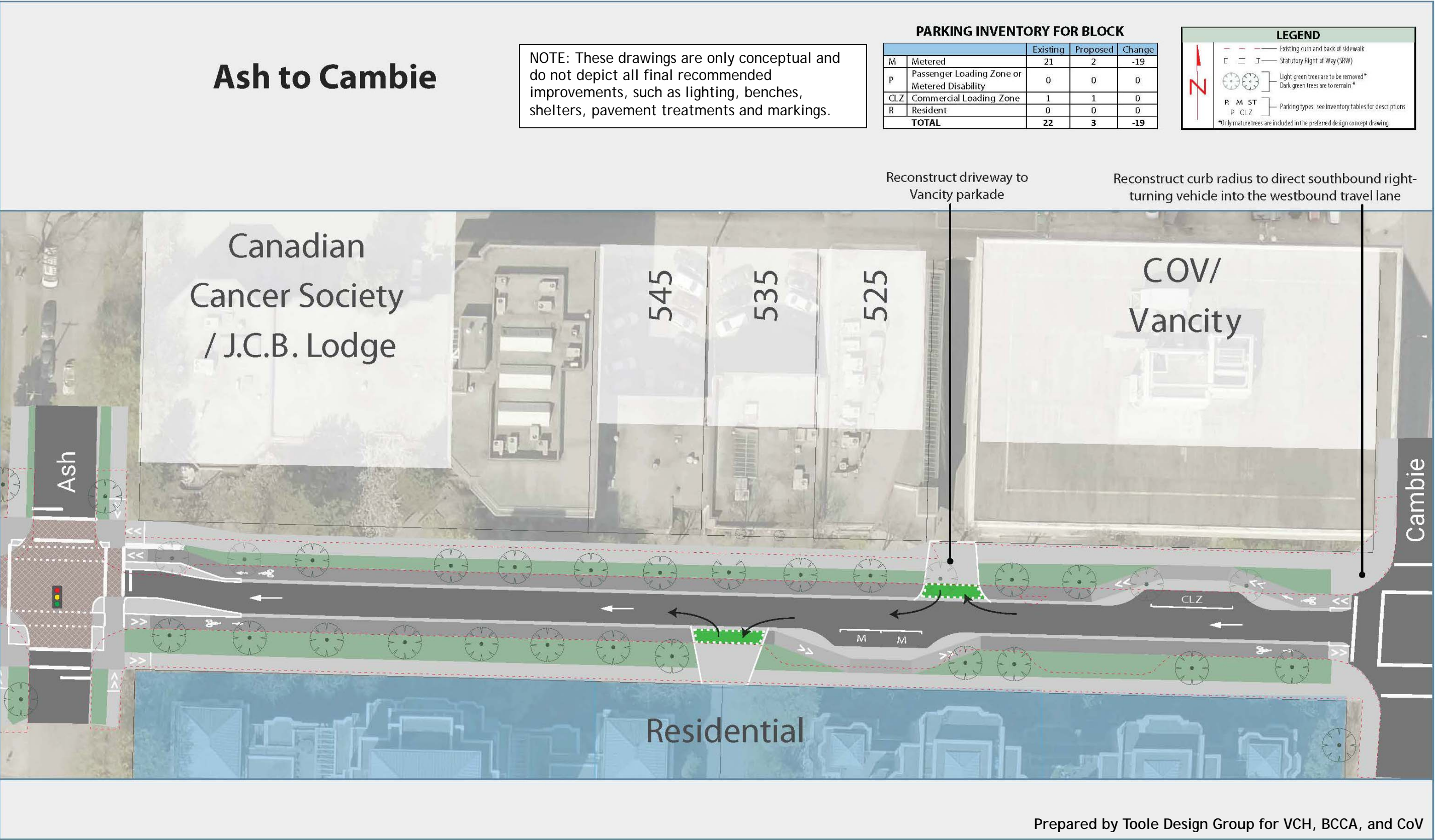


Figure 5. Ash St to Cambie St preferred design resulting from Collaborative Process with Health Partners

10th Ave Corridor Engagement and Consultation Summary

Stakeholder and public consultation for the 10th Ave Corridor project was launched in summer 2015 and took place in a multi-phase process:

- **Phase 1 - Promote and Education, Engage (July - November 2015)**
Celebrate people walking and cycling on 10th Ave through a photo contest and gathering public feedback on the 10th Ave Corridor. Listening and learning from stakeholders and the public to identify key issues, opportunities and ideas for improvements along the corridor.
- **Phase 2 - Consult (December 2015 - April 2016)**
Propose solutions and design options for Health Precinct
- **Phase 3 - Recommend (May - December 2016)**
Recommend designs for Health Precinct and design options for two other segments of the corridor
- **Collaborative process with Health Precinct Partners (December 2016 - April 2017)**
To review and further refine recommended option for the Health Precinct

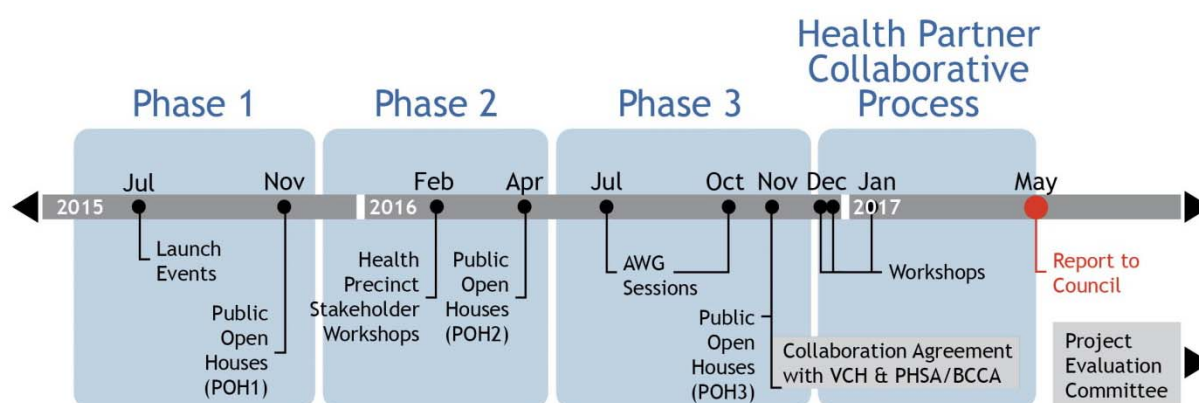


Figure 1. Consultation process timeline

Consultation for the project occurred through a variety of activities—meetings, stakeholder and accessibility workshops, presentations, public open house events—to engage stakeholders, health services providers, businesses, residents, city advisory committees, and users along the 10th Ave Corridor between Trafalgar St and Victoria Dr. Notifications of project updates and events included print and digital materials delivered through Canada Post, emails sent to addresses on the 10th Ave Corridor email listserv, social media, hand delivery within the community, and postings on the City of Vancouver and 10th Ave Corridor project webpages. Input and feedback was received through stakeholder meetings, discussion with staff, and public feedback forms available at public events, online through the project website, and online through Talk Vancouver. Comments were also submitted by email and 3-1-1.

In total, over 2,000 people participated directly in 90+ meetings with stakeholders, city advisory committees and interest groups, residents, and 9 public open house events. Approximately 4,150 feedback forms were completed and over 200 responses received through the 10th Ave project email and 3-1-1 between July 2015 and April 2017. Following Public Open Houses in November 2016, a collaborative process with Health Precinct partners

was initiated to further refine the recommended designs for the Health Precinct segment of the Corridor.

Phase 1 – Promote and Educate, Engage (July – November 2015)

In July 2015, staff launched the 10th Ave Corridor project with a Momentum Magazine #ThisIsHowWeRoll photo shoot contest held over the summer with photo booth opportunities set up along the route and an invitation to post pictures online. Feedback about the corridor was also sought at City sponsored Bike to Work Week stations. Starting in the fall, staff started to identify, contact and meet with key stakeholder groups and health service providers within the Health Precinct and corridor, and introduce the project to city advisory committees. In late October and early November, three public open house events were held to provide project background information, identify key issues, and seek public feedback on experiences, challenges, and opportunities in the corridor.

Approximately 450 people participated directly in events and staff received over 1,800 responses through various forms of feedback during Phase 1.

Phase 1 Consultation Activities

Consultation Activities	Details	Number of Participants
#ThisIsHowWeRoll Photo Shoots with Momentum Mag	1: July 20, 2015, 3:30 - 6:30 pm VGH Lawns, 10th Ave between Willow St and Heather St 2: July 26, 2015, 10 am - 1 pm Kitsilano Farmer's Market, Kitsilano Community Centre	130
Stakeholder Groups and Advisory Committees	12 meetings with: <u>City advisory</u> <ul style="list-style-type: none"> Active Transportation Policy Council Projects Subcommittee Children and Youth Advisory Committee Persons with Disabilities Advisory Committee Seniors' Advisory Committee Transportation 2040 Stakeholder Group Women's Advisory Committee <u>Stakeholders</u> <ul style="list-style-type: none"> BC Ambulance Services BC Cancer Research Centre Canadian Cancer Society Coast Mountain Bus Company TransLink Vancity Credit Union Vancouver Coastal Health 	135 (approx.)
Public Open Houses	1: October 29, 2015, 4:30 - 7:30 pm Blusson Spinal Cord Centre, 818 W 10th Ave 2: November 3, 2015, 4:30 - 7:30 pm Kitsilano Community Centre, Snowy's Lounge 3: November 7, 2015, 2 - 5 pm Queen Alexandra Elementary Gym	181 registered

Feedback Form	Available at public open houses, online, and through Talk Vancouver (October 29 - November 15, 2015)	1,789
Other Submissions	<ul style="list-style-type: none"> • 3-1-1 inquiries • E-mails to 10thavenue@vancouver.ca • Letters 	40 (calls, e-mails and letters)

Phase 1 Communications Products

Communications Products	Quantity	Details
November Public Open House Notification	17,020	<ul style="list-style-type: none"> • 11,000 postcards mailed to residents along 10th Ave through Canada Post • 2,000 postcards and 25 posters delivered to community centres, libraries and businesses on and near 10th Ave • 4,000 postcards distributed in VGH precinct
Project Website		Updates to <i>vancouver.ca/10th-avenue</i> (4,787 page views)
Advertisements	5	Started week of October 29, 2015 <ul style="list-style-type: none"> • 3 post - City of Vancouver Calendar of Events • 2 ads - Georgia Straight
Social Media	7	Started week of October 29, 2015 <ul style="list-style-type: none"> • 2 posts City of Vancouver Facebook • 5 posts BikeVancouver Facebook
Media Articles, Radio Interviews	4	Media interviews and articles (sample): July 23, 2015 - Momentum Magazine July 19, 2015 - Metro News Vancouver July 18, 2015 - Vancity Buzz July 24, 2015 - CBC News

Key Themes

Emerging key themes heard during all Phase 1 launch events, stakeholder meetings, and public open houses included:

- Consensus that the status quo is not an option, but there is no easy solution
- Street trees should be kept
- Biking is uncomfortable here (especially with children) due to vehicle volumes and on-street parking
- Improving precinct wayfinding is important
- People avoid walking and biking on 10th Ave because of the traffic
- 4-way stops create anxiety for all road users
- Yielding behaviour at crosswalks (including at stop signs) is poor
- Many drivers shortcut through the precinct
- Concern about lighting
- Parking is an issue, including:
 - Loss of permit parking, which is valued by local residents
 - "Dooring" for people biking
 - Traffic friction created by on-street parking

- Limited parking supply and expense
- On-street parking at corners results in poor visibility

Additional comments recommended expanding the 10th Ave bike route to UBC, improvements for people walking and crossing 10th Ave, and concern about congestion on various segments of the corridor.

To view the Phase 1 Public Open House Feedback Results see **APPENDIX H**.



Figure 2. November Public Open House event

Phase 2 - Consult (December 2015 – April 2016)

10th Ave Health Precinct

Phase 2 engagement concentrated on the Health Precinct segment of 10th Ave between Oak St and Yukon St. Staff met with the various health service providers to gather input on access and loading requirements for visitors, staff, and building operations. Two stakeholder workshops were held in February to review potential design options for 10th Ave. Feedback received through the workshops helped guide the development of options presented to the public. Meetings were held with residents on 10th Ave in the Health Precinct and city advisory committees prior to the public open house events. In April 2016, staff presented improvements to 10th Ave between Oak St and Yukon St at two public open houses for comment and feedback. The material presented included several pedestrian realm improvements for the entire segment and outlined three design options to incorporate the protected bike way which were:

1. Uni-directional - a one-way protected bike lane on each side of 10th Ave;
2. Bi-directional north side - a two-way protected bikeway on the north side of 10th Ave;
and
3. Bi-directional south side - a two-way protected bikeway on the south side of 10th Ave.

Approximately 390 participants attended Phase 2 meetings and events with over 1,100 responses received on the project.

Phase 2 Consultation Activities

Consultation Activities	Details	Number of Participants
Stakeholder Groups and Advisory Committees	<p>26 meetings with:</p> <p><u>City advisory</u></p> <ul style="list-style-type: none"> • Active Transportation Policy Council Projects Subcommittee • Children and Youth Advisory Committee • Persons with Disabilities Advisory Committee • Seniors' Advisory Committee • Transportation 2040 Stakeholder Group • Women's Advisory Committee <p><u>Health Precinct</u></p> <ul style="list-style-type: none"> • Arthritis Society/ Mary Pack Arthritis Centre • BC Ambulance Services • BC Cancer Agency • BC Cancer Research Centre • Canadian Cancer Society • Coast Mountain Bus Company • Eye Care Centre • HandyDART, MVT Canadian Bus Inc. • Health Precinct residents • Provincial Health Services Authority • TransLink • VanCity Credit Union • Vancouver Coastal Health • Vancouver Fire and Rescue Services <p><u>Quebec to Guelph</u></p> <ul style="list-style-type: none"> • Kingsgate Mall representatives 	155 (approx.)
Health Precinct Stakeholder Workshops	<p>1: February 25, 2016, 11 am - 2 pm Presentation and walking tour, Medical Students and Alumni Centre</p> <p>2: February 29, 2016, 11 am - 2 pm Presentation, table discussions Medical Students and Alumni Centre</p>	~36 participants representing 18 service providers, city advisory committees, and interested groups attended each session
Health Precinct Residents Meetings	3 meetings with 10 th Ave resident groups	25 (approx.)
Public Open Houses	<p>1: April 23, 2016, 11 am - 3 pm Park Inn and Suites, 898 W Broadway</p> <p>2: April 26, 2016, 12 - 8 pm Park Inn and Suites, 898 W Broadway</p>	177 registered
Feedback Form	Available at public open houses, online, and through Talk Vancouver (April 15 to May 15, 2016)	1,068
Other Submissions	<ul style="list-style-type: none"> • 3-1-1 inquiries • E-mails to 10thavenue@vancouver.ca • Letters 	60 (calls, e-mails, and letters)

Phase 2 Communications Products

Communications Products	Quantity	Details
April Public Open House Notification	5,400	<ul style="list-style-type: none"> 3,200 letters mailed to residents and businesses in the 10th Ave Health Precinct through Canada Post 1,800 postcards distributed in Health Precinct, to residents, and businesses on Broadway 100 posters distributed in Health Precinct, to residents, and businesses on Broadway 300+ emails to program listserv, stakeholders, and advisory groups members
Project Website		Update to <i>vancouver.ca/10th-avenue</i>
Advertisements	5	<p>Started week of April 15, 2016</p> <ul style="list-style-type: none"> 2 post - City of Vancouver Calendar of Events 2 ads - Vancouver Courier - Vancouver Matters 1 post - VCH/VGH Connect - Newsletter
Social Media	4	<p>Started week of April 15, 2016</p> <ul style="list-style-type: none"> 1 post - City of Vancouver Facebook 2 events - City of Vancouver Facebook 1 post - BikeVancouver Facebook (5,200 reach) 2 posts - City of Vancouver Twitter
Media Articles, Radio Interviews	3	<p>Media interviews and articles (sample):</p> <ul style="list-style-type: none"> April 26, 2016 - News1130 April 26, 2016 - CKNW April 27, 2016 - CTV

Key Themes

Following is a summary of the key themes heard during Phase 2 consultation.

Health Precinct Stakeholder Workshops

Two half-day sessions included presentations by staff, a walking tour, and table discussions. The key theme underlying discussions during the sessions was that “**safety is paramount**” for all users of 10th Ave while maintaining access to the hospital and health services. Additional feedback received during the workshop included:

- Emphasis on the importance of the passenger loading zones
- Concern about conflicts between people walking, cycling, and driving
- A general preference for a uni-directional design (one-way protected bike lanes on each side of street) over the bi-directional options (a two-way bikeway on one side of the street) for reasons of predictability and safety
- A preference for two-way access at least between Oak St and Willow St in all options
- Concern over conflicts between people using the passenger loading zones and people cycling through, including people cycling fast downhill
- Concern about increased turning conflicts between people cycling and driving with bi-directional options
- Consideration of the region’s aging population and increase in number of people accessing health services here

To view the summary of the Health Precinct Stakeholder workshop see **APPENDIX E**.



Figure 3. Participants of the stakeholder workshop walking tour and table discussions

City Advisory Committees (March 2016)

Following the Health Precinct Stakeholder Workshops, staff met with city advisory committees where members identified the following for the 10th Ave Corridor project:

- Improvements to 10th Ave must respect the safety of pedestrians since the Transportation Plan 2040 places highest priority on pedestrians, prioritizes pedestrian accessibility, and places a special emphasis on safety for at-risk groups
- Concern about further accommodating a busy bike route through a medical corridor with a significant number of important and unique medical services
- Concern that the proposed designs for the Health Precinct did not provide safe pick-up and drop-off locations for persons with disabilities in close proximity to medical services, or the design did not protect vulnerable pedestrians from significant injury posed by a busy bicycle path

To view the full advisory committee motions, recommendations, and staff responses see **APPENDIX F** and **APPENDIX G**.

Public Open House (April 2016)

The uni-directional option was the most favoured of the three options presented. Responses to design elements included:

- Pedestrian crossings
 - Support for improvements to the sidewalk and pedestrian crossings
 - Concern that pedestrians will be required to cross bike lanes
 - Need for improved and more accessible road crossings for vulnerable pedestrians
 - Concern about conflicts between people walking, and people driving and cycling
- Sidewalk conditions and public realm features (e.g., lighting, furniture)
 - Need for more lighting, crossing signals, and accessible street design
 - Support for maintaining healthy tree canopy
- Wayfinding
 - Need for clear signage to alert people driving and cycling about vulnerable pedestrians, and priority of emergency vehicles
 - Need for clear signage for drivers that may be lost/ stressed & need support finding parking and health service facilities
- Passenger loading zones

- Concern about passenger loading area design and proximity to bike lanes
 - Need for more pick-up and drop-off locations for all health services along 10th Ave
- Travel behaviour
 - Concern about speed of people cycling along 10th Ave
 - Concern that people cycling are not stopping or yielding for pedestrians
- Bike route
 - Concern about increased number of people cycling once improvements are made
 - Suggestions for the development of alternative routes for people biking
- Parking
 - Concern about the removal of on-street metered parking
 - Concern about possible increased walking distance from the relocation of on-street parking
 - Concern over changes to disability parking at Blusson/ICORD facility

To view the Phase 2 Public Open House Feedback Results see **APPENDIX H**.



Figure 4. April Public Open House events

Phase 3 – Recommend (May – December 2016)

Phase 3 consultation built on work completed in Phase 1 and 2 and expanded to include three segments of the 10th Ave Corridor: Health Precinct from Oak St to Cambie St; Quebec St to Guelph St; and Commercial Dr to Victoria Dr.

Approximately 1,130 people participated directly in events and staff received over 1,400 responses through various forms of feedback during Phase 3.

Health Precinct (Oak St to Cambie St)

Based on feedback heard at the April Public Open House events and city advisory committees, an Accessibility Working Group was created to explore specific concerns about accessibility in the Health Precinct. The Accessibility Working Group included representatives from three city advisory committees and Health Precinct stakeholders. The recommended design for the Health Precinct at the time was presented to the public at four open houses in November, 2016. Staff attended city advisory committees meetings in the spring and again following the November events to provide updates on the design and gather feedback. Staff also presented to three seniors groups throughout the city upon request by members of the Seniors' Advisory Committee, who were helpful in arranging these meetings. Staff also administered an

intercept survey to gather additional information on perceptions of people walking, biking, and driving along 10th Ave.

Quebec St to Guelph St and Commercial Dr to Victoria Dr Segments

Phase 3 engagement also included connecting with key stakeholder groups, businesses, operators and significant property owners in two other segments along the 10th Ave Corridor outside the Health Precinct: Quebec St to Guelph St, and Commercial Dr to Victoria Dr. Proposed designs for these two segments were presented at the November Public Open Houses. Following the public open houses, staff met with resident groups, local organizations, and local businesses, including merchants of Kingsgate Mall, to gather additional feedback to inform potential changes to the proposed designs.

As the proposed refined designs for the Quebec St to Guelph St segment of 10th Ave are significant, they will be presented to the public again in spring 2017 for further feedback and comment.

Phase 3 Consultation Activities

Consultation Activities	Details	Number of Participants
Accessibility Working Group Workshops and Health Precinct Stakeholder meetings	Accessibility Working Group Workshops 1: July 15, 2016, 1 - 3:30 pm Townhall Meeting Room, City Hall	87 (approx.)
	2: October 13, 2016 9 am - 12 pm Townhall Meeting Room, City Hall	
	Accessibility Working Group and Stakeholder Presentation 3: November 7, 2016, 2 - 4pm Townhall Meeting Room, City Hall	

Consultation Activities	Details	Number of Participants
Stakeholder Groups and Advisory Committees	<p>30+ meetings with:</p> <p><u>City advisory</u></p> <ul style="list-style-type: none"> • Active Transportation Policy Council • Persons with Disabilities Advisory Committee • Seniors' Advisory Committee • Transportation 2040 Stakeholder Group <p><u>Health Precinct</u></p> <ul style="list-style-type: none"> • Arthritis Society/ Mary Pack Arthritis Centre • BC Ambulance Services • BC Cancer Research Centre • Canadian Cancer Society • Coast Mountain Bus Company • Eye Care Centre • HandyDART • Patient Transfers, Hospital Transport (S&N Transport) • Seniors Groups and Organizations • TransLink • Vancity Credit Union • Vancouver Coastal Health • Vancouver Fire and Rescue Services • Vancouver Police Department <p><u>Quebec to Guelph</u></p> <ul style="list-style-type: none"> • Best Western Hotel • Holy Trinity Ukrainian Church • Kingsgate Mall merchants • Quebec to Guelph resident groups • Telus <p><u>Commercial to Victoria</u></p> <ul style="list-style-type: none"> • East Van Medical Centre • Safeway • TGMP 	235 (approx.)
10 th Avenue Health Precinct Intercept Survey	Conducted between September 27 and October 2, 2016	461
Public Open Houses	<p>1: November 22, 2016, 4 - 7 pm Blusson Spinal Cord Centre, 818 W 10th Ave</p> <p>2: November 23, 2016, 4 - 7 pm Holy Trinity Ukrainian Orthodox Cathedral, 154 W 10th Ave</p> <p>3: November 26, 2016, 11 am - 3 pm Blusson Spinal Cord Centre, 818 W 10th Ave</p> <p>4: November 29, 2016, 4 - 7 pm Croatian Cultural Centre, 3250 Commercial Dr</p>	350 registered
Feedback Form	Available at public open houses, online, and through Talk Vancouver (November 22 to December 12, 2016)	1,300
Other Submissions	<ul style="list-style-type: none"> • 3-1-1 inquiries • E-mails to 10thavenue@vancouver.ca • Letters • Petitions 	100+ calls, e-mails and letters

Phase 3 Communication Products

Communications Products	Quantity	Details
November Public Open House Notification	~14,000	<ul style="list-style-type: none"> 12,000 postcards mailed to residents and businesses in the 10th Ave Corridor through Canada Post, and distributed to Health Precinct health service providers 1,000 posters distributed along the 10th Ave Corridor, to health service providers in the Health Precinct, to residents and businesses in the Quebec to Guelph and Commercial to Victoria segments 500+ letters mailed and hand delivered to residents and businesses in the Health Precinct, Quebec to Guelph and Commercial to Victoria segments 300+ emails to program listserv, stakeholders, and advisory groups members
Advertisements	9	<p>Started week of November 14, 2016</p> <ul style="list-style-type: none"> 4 post - City of Vancouver Calendar of Events 2 ads - Vancouver Courier - Vancouver Matters 2 digital ads - Georgia Straight 1 post - VCH/VGH Connect - Newsletter
Social Media	19	<p>Started week of November 14, 2016</p> <ul style="list-style-type: none"> 3 post - City of Vancouver Facebook (56,066 reach) 4 events - City of Vancouver Facebook 12 posts - City of Vancouver Twitter (7,750 reach)
Media Articles, Radio Interviews	9	<p>Technical media briefing by staff:</p> <ul style="list-style-type: none"> November 14, 2016 <p>Media interviews and articles (sample):</p> <ul style="list-style-type: none"> October 5 & 28, 2016 - CBC October 28, November 1 & 15, 2016 - Vancouver Sun November 15, 2016 - CBC November 17 & 21, 2016 - Georgia Straight November 28, 2016 - Metro

Key Themes

Following is a summary of key themes heard during Phase 3 consultation.

Accessibility Working Group and Health Precinct Stakeholders (July - November 2016)

Discussion at the workshop sessions focused on six key areas and feedback informed changes to the preferred design for 10th Ave between Oak St and Cambie St. The key themes discussed and feedback received at the working group sessions were:

- Safe crossings for vulnerable pedestrians
 - Concern that crossing designs are inadequate
 - Concern about people biking not yielding to people walking when trying to cross the street or bikeway
- Safe passenger zones next to health services
 - Need for more pick-up/drop-off spaces
 - Need for curb ramps for people with mobility issues to access passenger zones
 - Concern that existing passenger zones will be too short if on-street parking is removed

- Need for wider landing areas to accommodate side-loading vehicles
 - Need for additional convenient seating at loading areas and adjacent to health services for patients waiting for pick-up
- Health Precinct access by public transit
 - Concern over the difficulty faced by those with mobility impairment in accessing VGH by transit due to steep grades between 10th Ave and Broadway
- Wayfinding and awareness
 - Need for clear signage for people driving that are sometimes lost/stressed to find parking and health service centres
 - Need for all road users need to understand this area is special
- Parking on 10th Ave and within the Health Precinct
 - Concern about losing on-street parking near health facilities
 - Concern about relocating Blusson accessible parking
 - Concern about the amount of convenient disability parking in the Health Precinct
- Future planning and research
 - Concern that future hospital growth is not being taken into account
 - Support for the City in considering research, best practices and research partnerships within the Health Precinct
- The creation of a “Hospital Zone” concept and commitment to a monitoring/evaluation strategy were identified through these discussions.

Input received from the advisory committees and working group helped staff refine the design for the Health Precinct and provide context for the collaboration process between Vancouver Coastal Health, BC Cancer Agency and City of Vancouver.

To view the summaries of the Accessibility Working Group sessions see **APPENDIX D**. Advisory committee motions and staff responses are provided in **APPENDIX F** and **APPENDIX G**.



Figure 5. Accessibility Working Group Workshop sessions

Intercept Survey 10th Ave Health Precinct (September -October 2016)

The Health Precinct was the main destination for survey participants walking, driving, or arriving by transit while a lower proportion of those biking were heading to the Precinct. As much as a quarter of those arriving by car or by transit were arriving from another municipality. The most common concerns cited about walking on 10th Ave were the high volumes of motor vehicle traffic, and bike traffic. Similarly, the most common concern cited about biking on 10th Ave was by far the high volumes of motor vehicle traffic, and approximately two-thirds of respondents indicated they would not feel comfortable biking with a young child on this stretch of 10th Ave.

Public Open House (November 2016)

Over half of the respondents to the feedback form supported the improvements to 10th Ave and a quarter expressed concerns on how the Health Precinct recommended design met various project objectives. People who typically walk or bike in the area tended to be the most supportive, while people who typically drove were split with roughly half expressing support and half expressing concern about the recommended improvements.

The design elements of the Health Precinct that were most supported included:

- Improvements to sidewalks
- Formalizing all legal crosswalks
- Accessible pedestrian ramps
- Pedestrian refuge areas
- Fully-raised and lengthened passenger zones with addition of shelters in front of Eye Care and Arthritis Centre
- Fully-raised intersections at Willow St and Heather St
- Improved wayfinding
- Addition of parking in collaboration with VCH
- Creation of a “Hospital Zone”
- Commitment to a process to evaluate results following implementation and provide updates to key stakeholders

Key areas of concerns or where support was mixed include:

- Passenger loading zones
 - Concern about narrowing the bike lane around passenger zones to single-file width
- Travel behaviour
 - Concern about the speed of people cycling along 10th Avenue
 - Concern about people cycling yielding or stopping for crossing pedestrians
 - Need for education for all users, and clear and visible signage
 - Suggestions to develop/improve alternative routes for people cycling
- Vehicle access and circulation, and parking
 - Ensuring emergency vehicle access is accommodated
 - Concern of impacts to people driving with the creation of a car-free space on Heather St north of 10th Ave
 - Concern of impacts to people driving by changing vehicle travel to one-way (westbound) between Cambie St and Willow St
 - Concern of impacts to people driving and patients accessing medical services by converting metered parking on Laurel St and Willow St to pick-up/drop-off zones and by relocating metered parking spaces from 10th Ave to an off-street parking lot at Ash St and 10th Ave
 - Concern about the possible increased walking distance that relocation of on-street parking may have, especially for patients of the Mary Pack Arthritis Centre
 - Concern for the impact to local residents with changes to residential permit parking

Participants also provided feedback on the Quebec St to Guelph St and Commercial Dr to Victoria Dr segments of the 10th Ave Corridor, as well as other areas that need improvements

including around Arbutus St, Vine St, Glen St, Fir St, Fraser Dr and Clark Dr. These will be discussed in more detail at future 10th Ave Corridor Project engagement events.

To view the Phase 3 Public Open House Feedback Results see **APPENDIX H**.

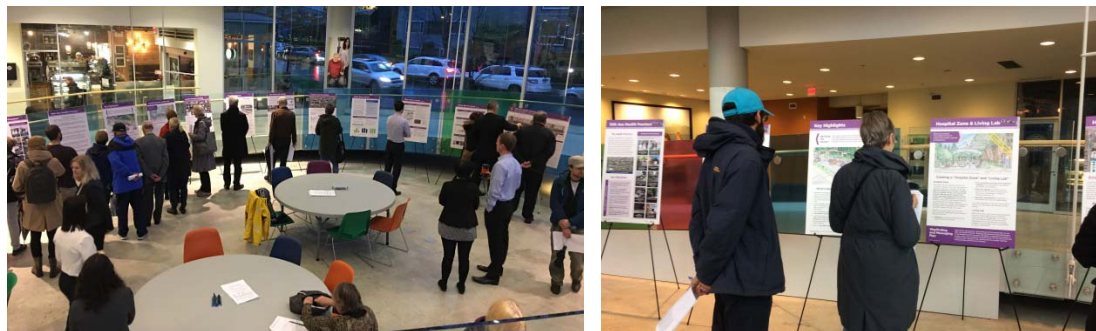


Figure 6. November Public Open House events

Collaborative Process with Health Precinct Partners (December 2016 – April 2017)

A collaborative process with Health Precinct partners—Vancouver Coastal Health (VCH), BC Cancer Agency (BCCA) and Provincial Health Services Authority (PHSA)—and the City was initiated following Phase 3 Public Open Houses to develop a shared resolution to the remaining 10th Ave Health Precinct concerns raised by the partners. The collaborative process involved three facilitated workshops and several leadership and smaller team meetings. Through collaboration from all parties, the design was further refined to produce a final concept that better meets the needs identified by the Health Precinct partners. The recommended Health Precinct design being presented before Council for approval represents the final culmination of this engagement process.

For more information on the collaboration process see **APPENDIX C**.

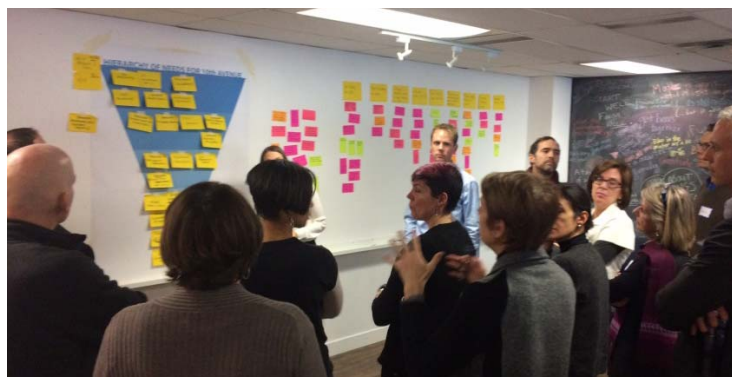


Figure 7. Collaboration workshop with VCH and BCCA

Staff have presented this updated design recommendation to city advisory committees and sent information to all Health Precinct stakeholders providing an update on the collaborative process and additional refinements to the design in the Health Precinct. An update was provided to the project email listserv and by mail to localized residents and businesses that refinements were made to the recommended design in the Health Precinct.



Figure 8. Presentation to Seniors' Advisory Committee

Collaborative Process Consultation Activities

Consultation Activities	Details	Number of Participants
VCH/BCCA/PHSA (Health Precinct Partners)	15+ meetings including: <ul style="list-style-type: none"> • 3 facilitated workshops with Health Precinct partners and consultants • multiple team leaders and executive meetings • multiple small team meetings • VCH/PHSA internal stakeholder information sessions and presentations 	50+ (workshop participants and VCH/PHSA stakeholder presentations) Excludes Health Precinct partner representatives, and CoV staff
Follow-up Presentations (by CoV 10 th Ave project team)	7 presentations and meetings scheduled in April and May (as of April 21): <u>City advisory</u> <ul style="list-style-type: none"> • Active Transportation Policy Council Projects Subcommittee • Persons with Disabilities Advisory Committee • Seniors' Advisory Committee • Transportation 2040 Stakeholder Group <u>Health Precinct</u> <ul style="list-style-type: none"> • Arthritis Patient Advisory Committee/ Arthritis Society • Vancouver Fire and Rescue Services • Vancouver Police Department 	Unknown at time of writing

Collaborative Process Communication Products

Communications Products	Quantity	Details
Health Precinct Collaborative Process Update	~1,600	<ul style="list-style-type: none"> • 100+ emails to CoV Health Precinct stakeholders, and advisory groups members • 900+ emails to program listserv • 600+ letters to residents and businesses in Health Precinct
Project Website		Update to vancouver.ca/10th-avenue



May 2, 2017

City of Vancouver

Mr. Mayor and City Council members

Dear Mr. Mayor and Council members,

Vancouver Coastal Health (VCH) would like to thank the City of Vancouver for agreeing to enter into a collaborative process for the design of the section of the 10th Avenue travelling through the Health Precinct. Through this process, VCH and other major health stakeholders had the opportunity to provide valuable input into the design of this major transportation artery and to assist in the development of a solution that responds to the needs of the thousands of frail and elderly patients visiting the site daily.

The Health Precinct provides the highest level of care to the most vulnerable population not only of the Vancouver community but also to the province of BC. For this reason, careful attention to detail is required for any intervention in the Precinct. This solution recognizes the Health Precinct as a distinct area in the city of Vancouver where something special happens every day. The proposed solution not only responds to the special needs of our frail population but also recognizes 10th Avenue as an important corridor that needs to be safe and efficient for all users of all ages and abilities using any traffic mode.

VCH endorses the recommended solution brought forward to Council today. We are looking for Council approval and hope the spirit of collaboration that was apparent during this process will continue while both our organizations work together on numerous healths related projects serving the Vancouver and BC Community.

VCH also support in principal the requirement for two (2) Statutory Right of Ways on VCH/VGH property between Willow and Heather to accommodate sidewalks on the North and South side of 10th Avenue. We will direct our legal team to work with the city legal team to finalize the details of these documents.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Ackenhusen", with a long horizontal line extending to the right.

Mary Ackenhusen

cc. Laura Case
Glen Copping
Shelly Fleck
Stef Schiedon

May 2, 2017

City of Vancouver
Attn: Paul Storer, Manager, Department of Transportation

RE: 10th Ave Corridor Bike Lanes, Cambie to Oak St

Thank you for inviting the BC Cancer Agency to participate in the 10th Ave Corridor Collaborative Process and providing us with the opportunity to provide essential input into the design of the West 10th Avenue health precinct.

The Vancouver Cancer Centre serves not only the Vancouver region but also the province of BC and the Yukon. As the largest of six regional centres, the Vancouver Centre also provides specialized services not available elsewhere in the province. We are a patient-centred organization and therefore it is necessary that we advocate on their behalf of our patients and their families to ensure that the design serves the needs of the people who we serve. We appreciate that it is a stressful time after a person receives a cancer diagnosis, and our patients are already trying to manage with the burden of their disease and the side-effects of their treatment. As a provider of treatment and care we aim to promote their independence whenever possible and ensure their safety, and that includes their ability to easily and safely access our facility before and after their appointments.

Our priorities therefore must be to maintain and optimize traffic flow for our Vancouver Cancer Centre and BC Cancer Research Centre to facilitate patient drop-off and pick-up, accessible parking and timely delivery of essential supplies and equipment.

We recognize that any design of public space is met with competing interests. However, we appeal to the City of Vancouver to put the needs of cancer patients - particularly in this health precinct - above those needs that may normally take priority in other areas of the City.

We support the direction the collaborative process has taken; the design dated April 24, 2017 represents a significant improvement over previous designs that have been presented. The proposed statutory right of way at Ash St and 10th Ave is going through our internal review process and ultimately will require approval by the PHSA board. We look forward to continue collaborating with the City and other care providers in this health precinct to refine the design and make further improvements to this and other future initiatives (such as wayfinding) along West 10th Avenue from Cambie Street to Oak Street.

Sincerely,



Stephanie Aldridge
Executive Director, Cancer Strategy and Capital Redevelopment



FINAL REPORT

Collaborative Process for the 10th Avenue Corridor

April 18, 2017

Prepared by:

DIALOG, Toole Design, and Bunt and Associates

Prepared for:

The City of Vancouver, Vancouver Coastal Health, and BC Cancer Agency

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PART A

**PROJECT
BACKGROUND**

1 INTRODUCTION

To build on the planning and engagement work undertaken by the City of Vancouver in the upgrading of the 10th Avenue Corridor, the City, Vancouver Coastal Health (VCH), and BC Cancer Agency (BCCA) agreed to enter into a collaborative process to develop a shared resolution for the 10th Avenue right-of-way within the Health Precinct, between Oak and Cambie Streets. The outcome of this process is a preferred design option supported by Health Precinct Partners, and that addresses VCH and BCCA concerns about patient safety, access for patient drop-off, and parking availability for patients and visitors.

To arrive at a preferred concept, the partners engaged stakeholders within the organizations in three workshops, hosted two leadership team meetings, and held a number of smaller working team meetings. This report provides overview of: the work plan and stakeholder engagement plan; the stakeholder workshops and leadership team meetings; and the preferred design option.

ENGAGEMENT SNAPSHOT: A TIMELINE OF ACTIVITIES

Between December 2016 and March 2017, a number of meetings and workshop took place:



Consultants were engaged in the following roles to assist in undertaking the work:

- DIALOG (Integrated Design and Engagement Specialists) – Facilitation;
- Toole Design (Transportation Engineering/Planning) – Development of design concepts; and
- Bunt and Associates (Transportation Engineering/Planning) – Analysis of site accessibility, travel demand, traffic operations, and parking management.

2 WORK PLAN

What follows is the work plan for the collaborative process, developed by the partners at the project outset.



WORKPLAN - VCH + BCCA + CoV COLLABORATIVE PROCESS for 10th AVENUE CORRIDOR

Objective: Develop Shared Resolution to 10th Ave Congestion and Safety Issues.

Description of process:

As a follow up to the three series of Open Houses held by the City and based on the feedback received to date:

1. City and VCH have agreed to enter into a collaborative process to review all options for the proposed redesign of the 10th Avenue corridor.
2. VCH and CoV will be continuing their dialogue to ensure safe, effective and timely access to the VGH site for patients, while ensuring that the corridor is safe for everyone using the street, with a focus on vulnerable patients and their families first and foremost.
3. This process will be co-led by VCH/BCCA and the City with the assistance of external transportation design consulting team. The consulting team will:
 - Review all potential strategies to ensure the 10th Avenue corridor redesign best serves the complex needs of the patients and their families while respecting the constraints of the urban location of the site. This will involve drawing from existing related solutions that have proven to be successful in similar contexts.
 - Review the latest CoV 10th Ave Health Precinct design proposal, in light of the considerations listed below.
 - Review the feasibility of re-routing the 10th Ave Bike Route around VGH, looking at comparable examples from other cities.
 - Review other potential bike network changes in the vicinity of the 10th Ave Health Precinct with a view to improve conditions on the 10th Avenue corridor, in light of the considerations listed below.
 - Review parking management strategies to better serve VGH clients/visitors
 - Review access strategies for HandyDART, disability parking, pick-up/drop-off, and hospital transfers at key buildings adjacent to 10th Avenue, especially the Blusson building.
4. Leads from both VCH/BCCA and CoV must be copied on all communication with the external consultant team, and a least one representative from both VCH/BCCA and CoV must be present for every meeting/phone call/or other communication.

VCH/BCCA and City will consider options in view of:

- A. The Vancouver General Hospital, BC Cancer Centre and surrounding campus is a health precinct; VCH/VGH/BCCA core business is the delivery of health care services to patients (and their supporting families).
- B. Access to the Vancouver General Hospital and BC Cancer Agency (BCCA) sites is critically important for the access and safety of patients, especially efficient and intuitive access to the Emergency Department for both ambulance drivers and the general public.
- C. Improving the safety, comfort, and accessibility for people on foot, especially patients and vulnerable pedestrians.



WORKPLAN - VCH + BCCA + CoV COLLABORATIVE PROCESS for 10th AVENUE CORRIDOR

- D. The need to accommodate patient/client access needs of adjacent medical services, businesses, and other institutions, taking into account concern over the proposed removal of on-street parking and patient pick-up/drop-off needs at health services adjacent to 10th Avenue at which patients are often mobility and/or visually impaired: Eye Care Centre, Mary Pack Arthritis Centre and Blusson I-CORD Centre .
- E. Various loading requirements along 10th Avenue, such as semi truck traffic to the main loading dock on campus, food service deliveries from an off-site kitchen that occur twice daily every day of the week to Jim Pattison Pavilion and Banfield, and BCCA loading.
- F. A strong public interest in and City policy for preserving as much of the street's healthy and mature tree canopy as possible and associated with this, ensuring an attractive and comfortable pedestrian/public realm.
- G. Concerns in regard to the proposed half-block car-free zone on Heather Street north of 10th Ave.
- H. VCH/BCCA and CoV support the health and wellness of staff and the general public, and, as such, support and encourage active modes of transportation such as walking and cycling.
- I. Ensuring adjacent residents can continue to park within a reasonable walking distance of home.
- J. Ensuring the recommended design and alignment for the 10th Avenue bike route, whether re-routed or not, would be safe and comfortable for people of all ages and abilities to cycle.

Proposed Activities and Timelines

Two (or 3) Charrettes with City and VCH/BCCA teams – Facilitated brainstorming exercises to review options for 10th Avenue Corridor Design.

Internal workshops will take place to develop strategies and options internally.

3 STAKEHOLDER ENGAGEMENT PLAN

To guide the design and execution of stakeholder workshops, an engagement plan was developed to confirm engagement objectives and desired tangible outcomes.

OBJECTIVES

The objectives of this process were to:

- Create a positive tone and strong working relationship that will endure beyond the life of this process;
- Prioritize fairness, in which both health and City partners have equal input and say;
- Establish a high degree of inclusivity in which all participants feel heard;
- Reinforce the importance of a two-way dialogue in which active listening and mutual learning play a vital role;
- Convey the complexity of the project and recognize that a significant amount of analysis, engagement, and design work has been done to date, while being open to a broad and diverse range of possibilities/options;
- Ensure the “right people” are at the table, which includes individuals or representatives who are accountable for making final decisions;
- Demonstrate that the merits of each option have been explored, so that there is clear rationale driving the selection of the final option; and
- Instill a sense of creativity and inspiration in the process.

TANGIBLE OUTCOMES / DELIVERABLES

The tangible outcomes of this process were:

- Workshop 1 – A set of clear evaluation criteria with which to eventually weigh the merits of various design options;
- Workshop 2 – A set of design options; and
- Workshop 3 – A set of clearly defined and evaluated design options, including the merits and trade-offs associated with each, and recommendations on how to move forward with the shared preferred option(s).

PART B

**STAKEHOLDER
WORKSHOPS**

1 WORKSHOP 1: SHARED UNDERSTANDING AND EVALUATION CRITERIA

The first of three stakeholder workshops took place on December 8th, 2016 and provided the opportunity to:

- **share hopes and concerns** about the process;
- **exchange information** and analysis already undertaken through presentations by the City of Vancouver, Vancouver Coastal Health, and Bunt and Associates; and
- **begin to co-create evaluation criteria** for use later in the process to develop and assess the merits of design options.

HOPES AND FEARS

Participants provided input on their concerns, frustrations, and fears, and their hopes and aspirations about the process and its outcomes.

Emergent themes for “fears” included:

- inability to reach consensus;
- lack of flexibility;
- increased conflicts between modes in the corridor; and
- increased safety issues for cyclists and pedestrians, namely vulnerable patients.



Emergent themes for “hopes” included:

- a focus on looking forward and moving beyond past differences;
- identification of common goals, such as safe streets for all users; and
- arriving at solution in which partners can stand before Council with a shared recommendation.

EVALUATION CRITERIA

Participants provided individual responses to the question: “Which criteria should we use to develop the design options, evaluate their merits, and weigh trade-offs?”. The group collectively developed the following category headings to group individual responses:

- Minimize walking travel distance to services
- Respond to general parking needs
- Efficient access to ER
- Efficient emergency access to other facilities on 10th Avenue
- Road safety (e.g. fewer collisions)
- Perceived safer, more comfortable, more delightful experience
- Mode hierarchy (e.g. vulnerable pedestrians, other pedestrians; cyclists; good movement; cars)
- User priority (e.g. ambulance and fire; patients/families; goods; visitors; staff; through travelers)
- Future thinking (e.g. flexibility, adaptability)
- Overarching principles and plans

The outcomes of this brainstorming exercise were adapted to a “Hierarchy of Needs” exercise in Workshop #2.

2 WORKSHOP 2: DESIGN OPTIONS

The second of three stakeholder workshops took place on December 14th and provided the opportunity to:

- **consider and organize needs within a hierarchy** to help the design team consider trade-offs;
- **learn about design issues and examples of best practices** through a presentation from Toole Design; and
- **co-create design options** to be further evolved/developed by the consulting design team.

HIERARCHY OF NEEDS

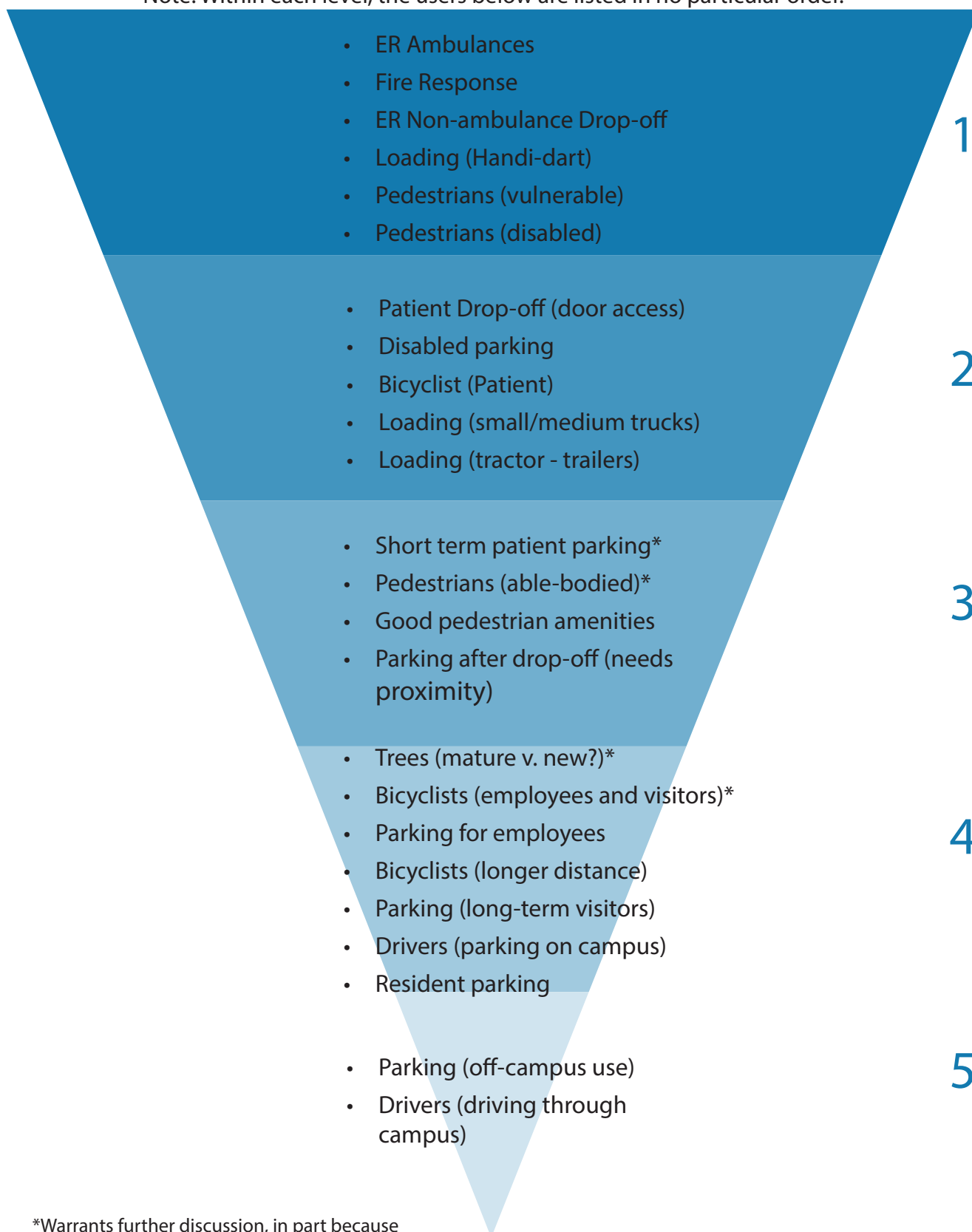
Building on the previous brainstorming exercise for evaluation criteria, participants established a Hierarchy of Needs for the different user groups of 10th Avenue in the hospital precinct. The hierarchy was to be used as a tool to inform design and evaluate options.

Results of this exercise (page 9) show where each user group falls within the five level hierarchy. Within each level, the users are listed in no particular order. Some elements were noted as warranting further discussion, in part because some needs could be accommodated outside of the right of way.



HIERARCHY OF NEEDS FOR 10th AVENUE HOSPITAL PRECINCT

Note: Within each level, the users below are listed in no particular order.



*Warrants further discussion, in part because some of these needs can be accommodated outside of the right of way.

DESIGN OPTIONS

Participants worked in three groups to consider the larger context of the hospital precinct, and to begin to consider design options for the corridor. The following design ideas emerged and were used by Toole Design to develop a series of design options in preparation for Workshop #3:

- The hierarchy of needs recognizes which uses should have priority
- Broader network options should be promoted to discourage cycling in the Health Precinct
- Specific user needs and design issues include (but are not limited to):
 - EMS access to be to two-way at least to Ash Street
 - Drop off zones are critical, particularly for the Eye Care Centre
 - Patients and vulnerable pedestrians need direct and efficient access
 - Loading functions are critical to hospital operations
 - On-street parking is sometimes used for short term needs such as drop-off, short visits, etc
 - Longer term functions such as long-term visitor parking and out-of-district uses could be accommodated off-street
 - New parking management approaches may be needed to encourage appropriate parking use
 - Mature trees are important, but should be considered for removal if this provides a better solution for higher priority needs



3 WORKSHOP 3: EVALUATING DESIGN OPTIONS

The third of three stakeholder workshops took place on January 19th, 2017 and provided the opportunity to:

- **evaluate the design options** developed by Toole Design; and
- **revise the design options.**

DESIGN OPTION EVALUATION

Based on the outcomes of the previous workshops, Toole Design developed four options:

1. **Minimal Intervention, Traffic Calming** – This included: maintaining two-way flow throughout; utilizing traffic calming to reduce traffic and bike speeds; prioritizing pedestrians at intersections and crossings; and minimizing disruption to parking.
2. **Shared Streets, Traffic Calming** – This included: reducing traffic and bike speeds; reducing traffic volumes by introducing one-block, one-way shared street segment (with maintained two-way flow for EMS between Laurel and Willow Streets); prioritizing pedestrians; and minimizing disruptions to parking.
3. **Westbound-only Protected Bike Lane** – This included: maintaining two-way traffic flow; separating bikes from cars in one direction; maintaining drop-offs; trading other on-street parking for bikeway; and allowing more width on the segment between Oak and Willow Streets.
4. **Protected Bike Lanes in Both Directions** – This included: creating one-way flow westbound from Cambie to Willow Streets (in which EMS can mount bikeway to go in opposite direction); maintaining two-way flow from Oak to Willow Streets; maintaining drop-offs; and trading other on-street parking for bikeway.

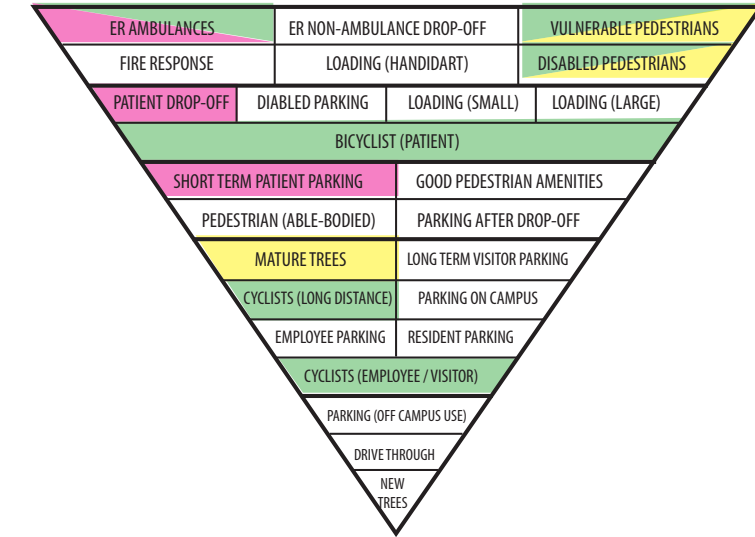
Toole Design also explored other options, but did not bring them forward to participants at the workshop as they were seen as unfeasible. They included: bi-directional bikeways; elevated and subterranean bikeways; and street closures / new streets.

For the evaluation exercise, participants used the following colour scheme to determine how each of the four options addressed specific needs – as identified in the pre-established Hierarchy of Needs – and compared to current conditions:

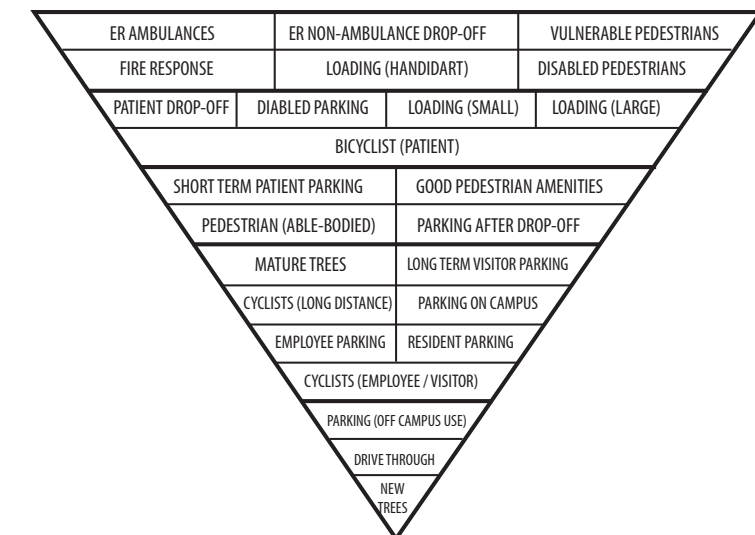
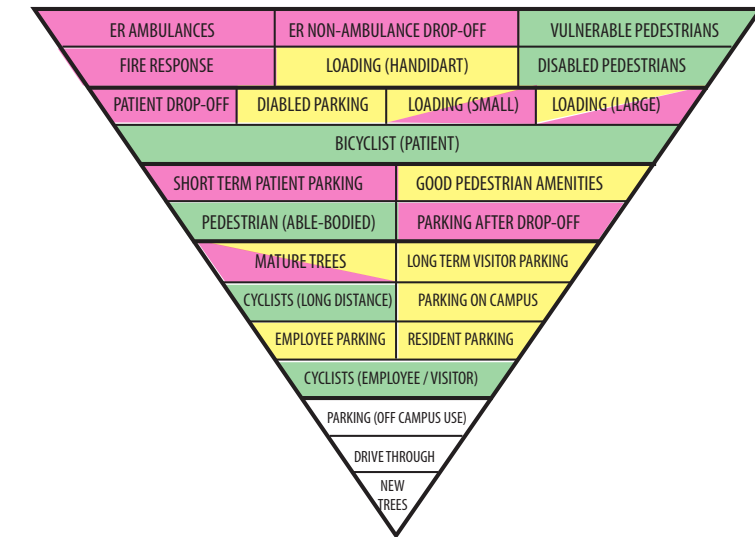
- **Green** – This design responds well to this need.
- **Yellow** – This design responds the same as does current conditions to this need.
- **Pink** – This design does not respond well to this need.

The results are organized by option on the following page. In some instances, participants used multiple colours to evaluate individual needs. Some groups did not complete the evaluation for all options.

SEPARATED BIKEWAYS BOTH DIRECTIONS



GROUP 2



THEMES FROM DISCUSSION ON OPTION EVALUATION AND REVISIONS

Participants were encouraged to explore hybrid options and/or to suggest changes to the options. Among the ideas that were discussed – as well as from comments shared during the evaluation process – the following themes emerged and were used by Toole Design to develop a series of refined design options in preparation for leadership team meetings:

- Given much of the traffic on 10th Avenue is related to local health services, minimal intervention through the use of traffic calming alone would not reduce traffic volumes to a level comfortable for an AAA bikeway and reinforces the need for bikeway separation.
- Some of the traffic calming elements have benefits to reducing motor vehicles speeds, improving the interaction between modes, and most importantly improving the pedestrian environment.
- Some see two-way traffic flow between Oak and Ash Streets as critical to hospital operations including for emergency access, loading functions, and patient access and circulation.
- There was general agreement that one-way traffic flow westbound for the block between Cambie and Ash Streets is not critical to the operation of the Health Precinct and could be supported by VCH and BCCA if supported by other local stakeholders.
- There was concern about the operation of a shared street environment and, in particular, the possibility it would encourage people biking to encroach on pedestrian space and the ability for visually impaired and blind pedestrians to navigate the space safely.
- A mixed solution with separated bikeway in only one direction does not address the City's desire for an all-ages-and-abilities bikeway.
- The passenger loading zones are an important amenity for clinics and services in the Health Precinct. There is also a desire to maintain some short-term on-street parking and increase the number of accessible on-street parking spaces.
- The existing curb-to-curb width is not sufficient to accommodate two-way traffic flow, on-street parking, and protected bike lanes. Space outside the curbs are recommended and should consider potential loss of trees.

PART C

**LEADERSHIP TEAM
MEETINGS**

1 MEETING 1: REVIEW OF THREE OPTIONS

The first of two leadership team meetings – which included participation from a smaller group of senior managers, project leads, and members of the consulting teams – took place on February 3rd, 2017. The purpose of the meeting was to review and refine three design options, to determine which were acceptable to Health Precinct partners, before refining further to create a preferred option.

The three options included:

1. **Traffic Calming and Pedestrian Improvements:** this included traffic calming features, pedestrian improvements, a section of curbless street, and an option for how a drop-off could be created in front of Blusson. This option retained as much parking and as many trees as possible, but does not include separated bikeways.
2. **Protected Bike Lanes in both Directions:** this included unidirectional bikeways on either side of the street, retention of most of the on-street parking, but required removal of most of the trees from the corridor.
3. **Protected Bike Lane, Westbound:** this included a unidirectional bikeway on the north side of the street with bicyclists sharing the roadway with motor vehicle traffic in the eastbound (downhill) direction. It retains most of the on-street parking, but requires removal of most of the trees on the north side of the street.

DESIGN OPTION REVISIONS

None of the options presented provided a solution that met all the needs of the stakeholders. For example, Option 1 retained on-street parking and all the trees along the corridor, but provided no separation for bicyclists. With only a very limited reduction in traffic volumes expected from traffic calming, this is not considered an AAA bikeway solution.

Option 2 retained on-street parking, but created separated bikeways at the expense of removing nearly all the trees from the street, which would not be an acceptable outcome. Similarly, Option 3 looked at whether removing trees from just the north side of the street would achieve an acceptable design outcome, but it only provides separation for bicyclists in one direction and is not considered an AAA bikeway solution.

These designs were useful as they showed that to achieve the stakeholders' goals for the project, space would need to be created through block-by-block trade-offs that balance tree removal, on-street parking conversion, relaxation of design standards, and opportunities to use private property through statutory rights-of-way. The leadership group went through these trade-offs for each half block and include the following ideas:

- **Oak – Laurel:** Trees on the south side are set-back from the curb and provide space to create a protected bike lane eastbound. On the north side, trees could be removed and some of the resident parking spaces repurposed to create a protected bike lane westbound.
- **Laurel – Laurel:** Landscaping should be cleared out of the area in front of emergency on the south side of the street to improve sight distance at the emergency room driveways. Strategic tree removal and conversion of some of the resident parking spaces will create additional space on the north side of the street.

- Laurel – Willow: Younger trees could be relocated on the south side of the street and some metered parking could be repurposed on the north side of the street. Some tree removal would likely be required on the north side of the street as well.
- Willow – Heather: There is an opportunity to create a statutory rights-of-way to use some property in front of the Heather Pavilion and in front of the future PHIX building and the existing Eye Care Centre. However, tree removal will likely also be necessary on the north side of the block. Parking in this block is the most utilized in the study area and as much as possible will be retained.
- Heather – Ash: There is an opportunity to create a statutory right-of-way to use some of the property in front of the vacant lot owned by PHSA. Much of the metered parking in this block could also be converted and some isolated tree removal may also be necessary.
- Ash – Cambie: Two-way traffic flow in this block is not critical to the operation of the Health Precinct and could be reduced to one travel lane. Metered parking could also be converted to additional space for separated bikeways.

2 MEETING 2: REVIEW OF THE PREFERRED OPTION

The second of two leadership team meetings took place on February 23rd. The purpose of the meeting was to review and refine the preferred design option, which was generally characterized by:

- Retaining two-way traffic flow between Oak and Ash Streets;
- One-way traffic flow (westbound) between Cambie and Ash Streets;
- Retaining two-way traffic flow on all side streets;
- Encroachment into privately owned properties to minimize tree removal;
- Retention of critical parking needs including expansion of the existing passenger loading zones (PLZ) and creation of additional accessible parking; and
- Pedestrian improvements and traffic calming elements such as curb extensions, raised intersections, and raised crosswalks.

PREFERRED DESIGN OPTION REVISIONS

The leadership group offered comments on the design. Key comments are listed in Table 1 below and were incorporated into the Recommended/Preferred Design Option presented in Part D.

TABLE 1: KEY BLOCK BY BLOCK DESIGN IMPROVEMENTS TO EXISTING CONDITIONS

Block	Design Improvements
Laurel-Laurel	<ul style="list-style-type: none"> • Shift bikeway and sidewalk on the north side of the street to avoid the mature tree and to create as many disabled or resident parking spaces as possible. • Continue to refine the design of the bikeway through the emergency driveways and find examples of these facilities at other emergency rooms and hospitals.
Laurel-Willow	<ul style="list-style-type: none"> • Redesign the east end of the block to retain trees and remove parking east of the Skin Care driveway. • Redesign the west end of the block so that parking does not restrict access and egress of trucks from the main loading court. • Convert on-street spaces to more passenger loading zones spaces and accessible parking spaces.
Willow-Heather	<ul style="list-style-type: none"> • This is the most heavily used block for parking related to the Eye Care center and other nearby uses; resolved to retain as much parking as possible on this block and trade off boulevard trees. • Increase the number of passenger loading spaces and create accessible parking spaces on this block. • The Blusson accessible parking lot will be retained, but will be accessed via W 12th Avenue; the driveway from W 10th Avenue will be closed.
Heather-Ash	<ul style="list-style-type: none"> • Discussion between partners about the need for any parking on this block. • Creating a bend in the roadway to accommodate a pedestrian and bicycle right of way on Provincial Health Services Authority land, in order to help maintain mature trees.
Ash-Cambie	<ul style="list-style-type: none"> • Refinement needed to the one-way approach on the east leg of the Ash Street intersection to better align it with the west leg.

PART D

PREFERRED

DESIGN CONCEPT

The preferred design concept for W 10th Avenue between Oak Street and Cambie Street is shown on Figures 1A – 1E. The study segment is approximately 850m long and includes seven intersections and numerous driveways. This section of the report describes the critical elements of the design and the considerations that went into its development.

1. DESIGN OBJECTIVES

The input received from the collaborative process was used to develop a framework for design as follows:

1. The partners recognize the importance of the Health Precinct as a regionally-significant health care provider and the importance of 10th Avenue to the operation of the Health Precinct. W 10th Avenue currently provides:
 - Vancouver General Hospital (VGH) emergency room access and egress.
 - Loading functions and access to the main loading court.
 - A key pedestrian corridor for movement through and around the campus.
 - A high proportion of disabled, elderly, and infirm patients and pedestrians that have special mobility needs.
 - Access to numerous patient services and clinics, several with short-term parking and drop-off.
 - An important link in the City's bike network.
2. The City aims to improve the comfort and safety of people walking in the Health Precinct while also improving the W 10th Avenue Bike Route to an All Ages and Abilities (AAA) facility. In the Health Precinct, motor vehicle traffic volumes, modal interactions, and a number of other factors introduce the need for separation of modes to provide an AAA bikeway and better organize interactions between modes.
3. Through the collaborative process, the Health Precinct partners recommended that the City of Vancouver explore the feasibility of developing an east-west bikeway on W 14th Avenue and a north-south bikeway connection on one of Spruce, Alder, or Birch Streets. It was also recommended that the W 7th Avenue and W 14th Avenue bikeways be developed as AAA standard bikeways so as to promote alternative bike routes to the Health Precinct.
4. Even with high-quality alternative bike routes in place, there will remain high volumes of bikes (including those to the Health Campus) on W 10th Avenue and, as such, the Health Precinct partners are committed to accommodating bicyclists as best as possible within the framework of maintaining or improving the critical functions of the Health Precinct.
5. Design decisions were made based on feedback from the partners and in accordance with the "hierarchy of needs" developed by the partners.

2. SUPPORTING TRAVEL & PARKING ANALYSIS

Bunt & Associates conducted a number of travel and parking surveys in the Health Precinct that were used to inform the design process and the preferred design concept.

TRAVEL DEMAND CHARACTERISTICS

Daily Person Trips and Mode Split

A significant portion of the travel demand on W 10th Avenue is accommodated via non-auto modes, although auto mode share was observed to be highest during an October weekday observation period. Between the hours of 6AM to 6PM on October 6, 2016, there were approximately 10,300 people travelling east-west along the W 10th Avenue Corridor just west of Heather St, between the hours of 6am and 6pm. Of these, 57% of them travelled in vehicles, 33% were walking and 11% were cycling. During the peak summer cycling months, cycling activity on the corridor is known to increase by 70% to 130%, which would increase the number of total person trips but also the percentage of people cycling.

Vehicle Demand and Routing Patterns

- W 10th Avenue serves an important vehicle access function for the Health Precinct. There are currently 10 driveway accesses that serve the Health Precinct on the W 10th Avenue corridor, 1 on the north side and 9 on the south side of the Street.
- During the peak mid-day hospital peak person trips hour (Noon to 1pm), approximately 10 vehicles enter and exit these driveways on the north side of the corridor, and 260 vehicles enter and exit the driveways on the south side of the corridor.
- 10th Avenue also provides a key travel route to the underground parking located at the Gordon and Leslie Diamond Health Care Centre (368 Stalls), due to left turn restrictions from 12th Ave onto Laurel Street.
- License plate surveys were conducted along W 10th Avenue and Heather Street in order to understand the driver routing patterns on the section of W 10th Avenue between Oak Street and Heather Street as well as the section of Heather Street between Broadway and W 12th Avenue.
 - Approximately 86% of the vehicles travelling eastbound and 68% travelling westbound on W 10th Avenue were associated with the Health Precinct;
 - Approximately 65% of the vehicles travelling northbound and 58% travelling southbound on Heather Street were associated with the Health Precinct.

Loading Activity

Loading demand observations were conducted in early May 2016 to document the loading activities at various buildings within the Health Precinct. There are two major loading facilities in the Health Precinct that are accessed directly via W 10th Avenue: the VGH Centralized Loading Facility at Jim Pattison Pavilion and the BC Cancer Agency (BCCA) loading facility. The Jim Pattison Pavilion Loading Facility has a daily loading demand of approximately 90 vehicles, which are split approximately 50%/50% to the west and east on W 10th Avenue. The BCCA loading facility has a daily loading demand of approximately 30 vehicles, most of which arrive from the west and leave to the east. The loading facility at BCCA is currently configured to accommodate trucks entering from the eastbound direction.

There are 57 metered parking spaces along the section of W 10th Avenue within the Health Precinct between Ash Street and Oak Street. These stalls were observed to be often used for short-term patient and visitor trips to the Health Precinct.

- The stalls were observed to be almost fully utilized during the peak activity period of the Health Precinct. A total of 490 unique vehicles were served by the metered parking stalls during the observation period, 6 am to 6 pm on September 30, 2017, serving about 735 drivers and passengers combined. The results only include vehicles where the arrival and departure time was observed. Vehicles that were already parked or still parked when the observation period ended were excluded;
- An intercept survey of drivers parking in these stalls confirmed 85% were visiting buildings within the Health Precinct; of this 85%, about half were associated with two buildings: the Eye Care Centre and the BC Cancer Agency. Daily site population numbers for the Health Precinct are not known for this observation, but we do know based on patient and visitor interview surveys that approximately 13% of drivers said they parked on the street frontages of the Health Precinct, which include 10th Avenue, Laurel, Heather and Ash Streets fronting the Health Precinct.;
- The average duration of stay was 66 minutes. The 10th Avenue street parking durations are shown in Figure 1A and,
- The average turnover rate for the meter parking stalls was 0.72 vehicles per stall, per hour, which shows that people are parking for longer than an hour. This rate is considered low turnover, compared to other commercial street environments which typically sees 2-3 vehicles per stall, per hour.

FIGURE 1A: 10TH AVENUE PARKING DURATIONS

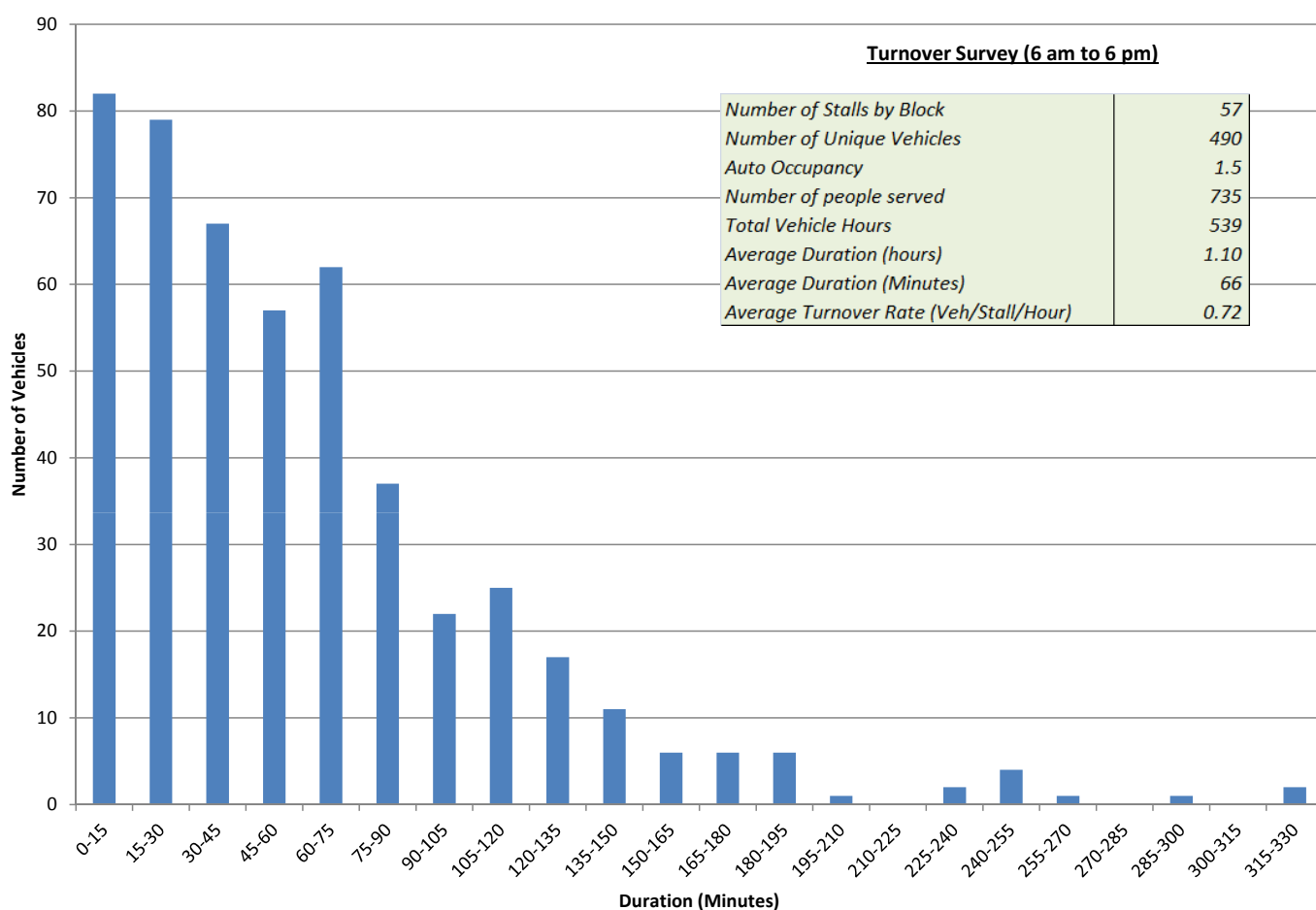


FIGURE 2A:
Preferred Design Concept: Oak Street to Laurel Street

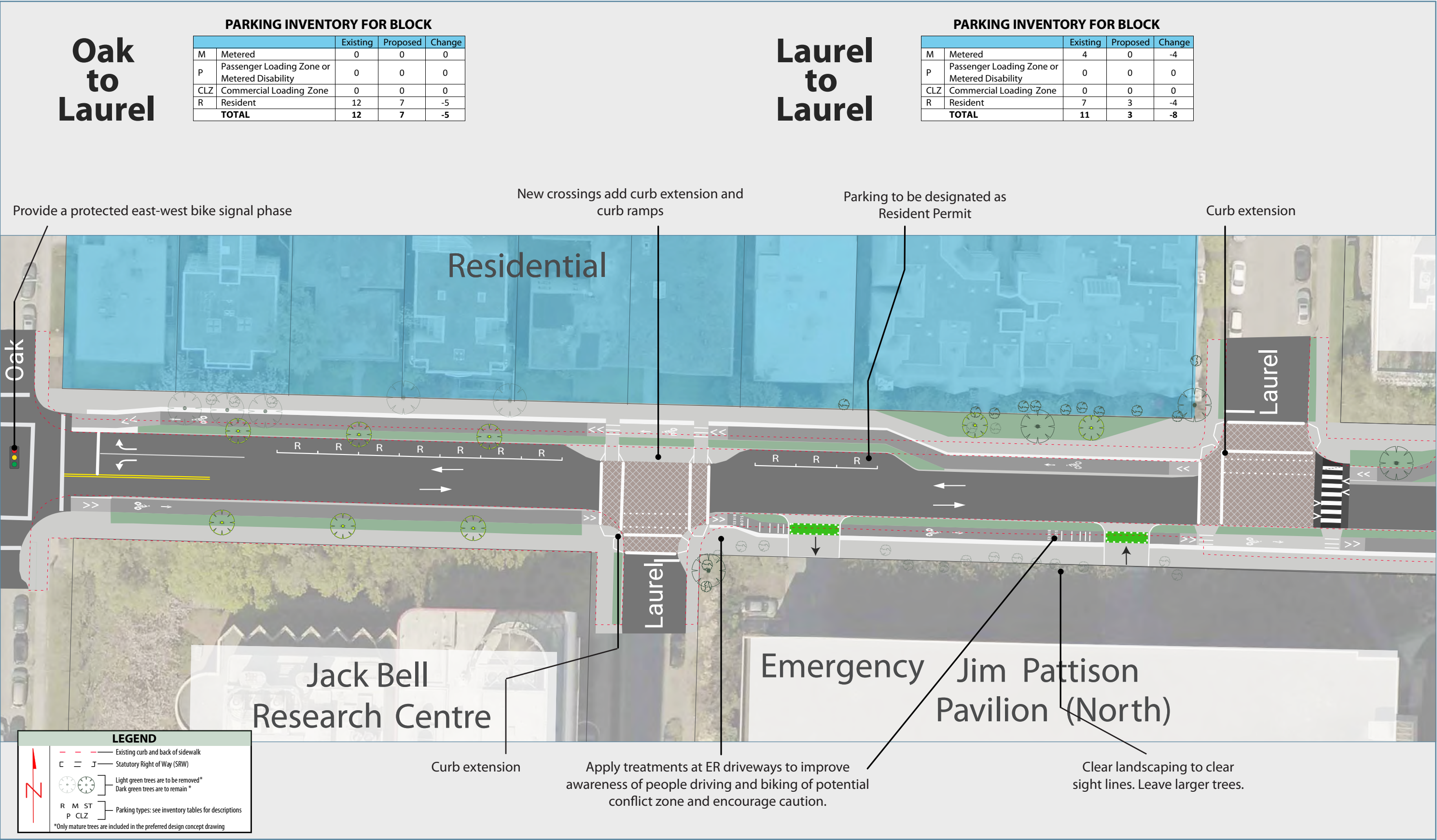


FIGURE 2B:
Preferred Design Concept: Laurel Street to Willow Street

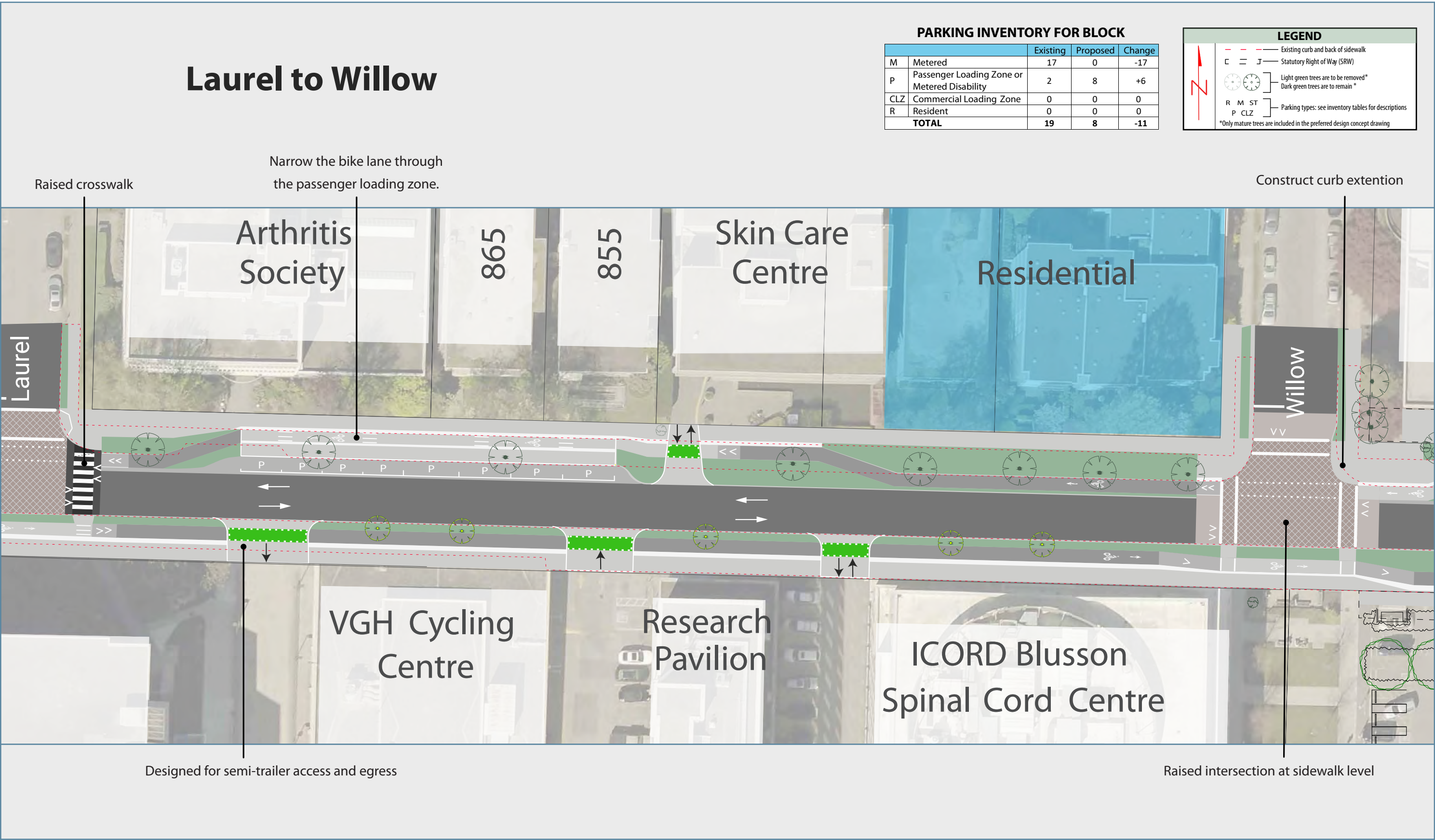


FIGURE 2C:
Preferred Design Concept: Willow Street to Heather Street

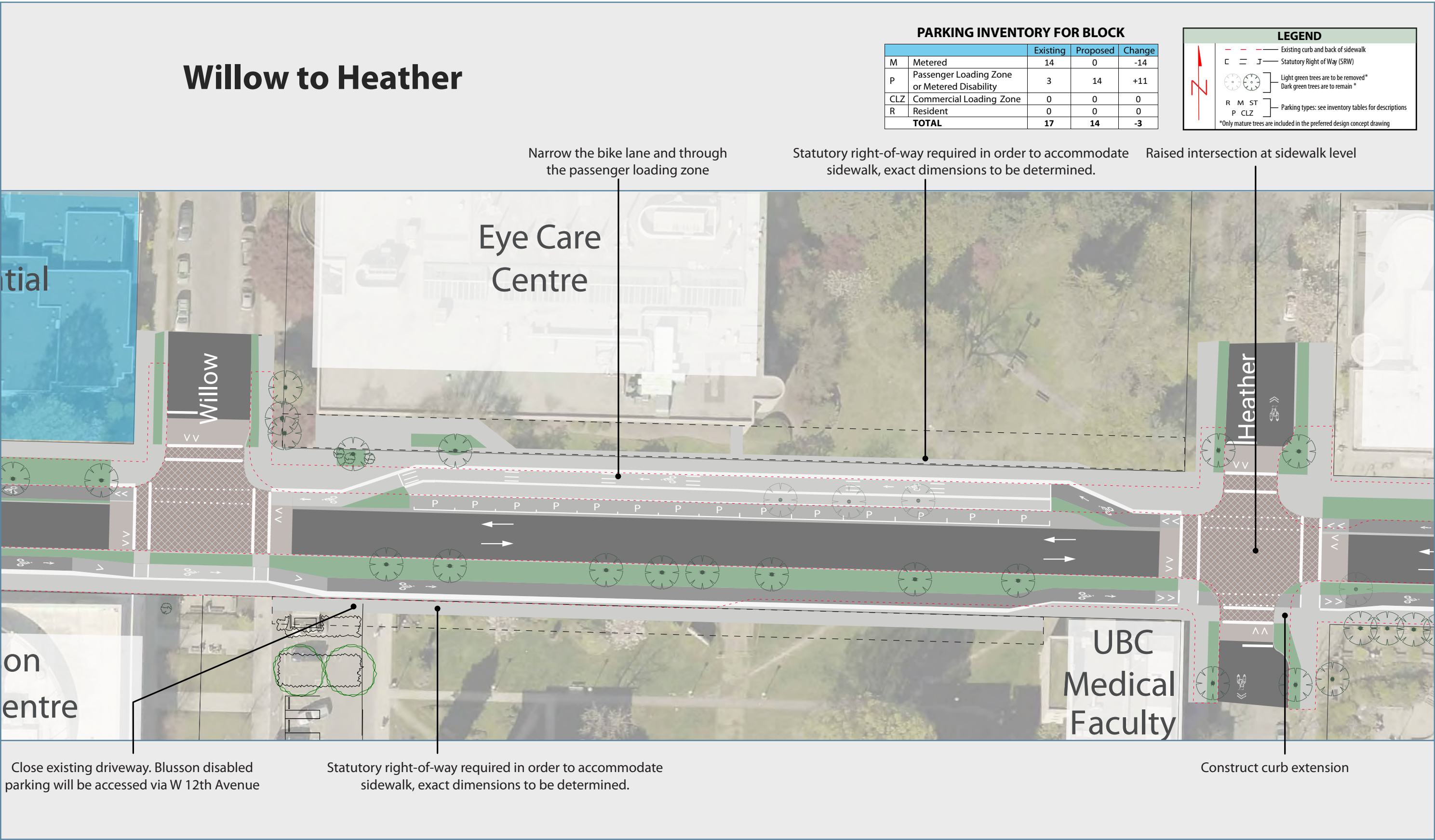


FIGURE 2D:
Preferred Design Concept: Heather Street to Ash Street

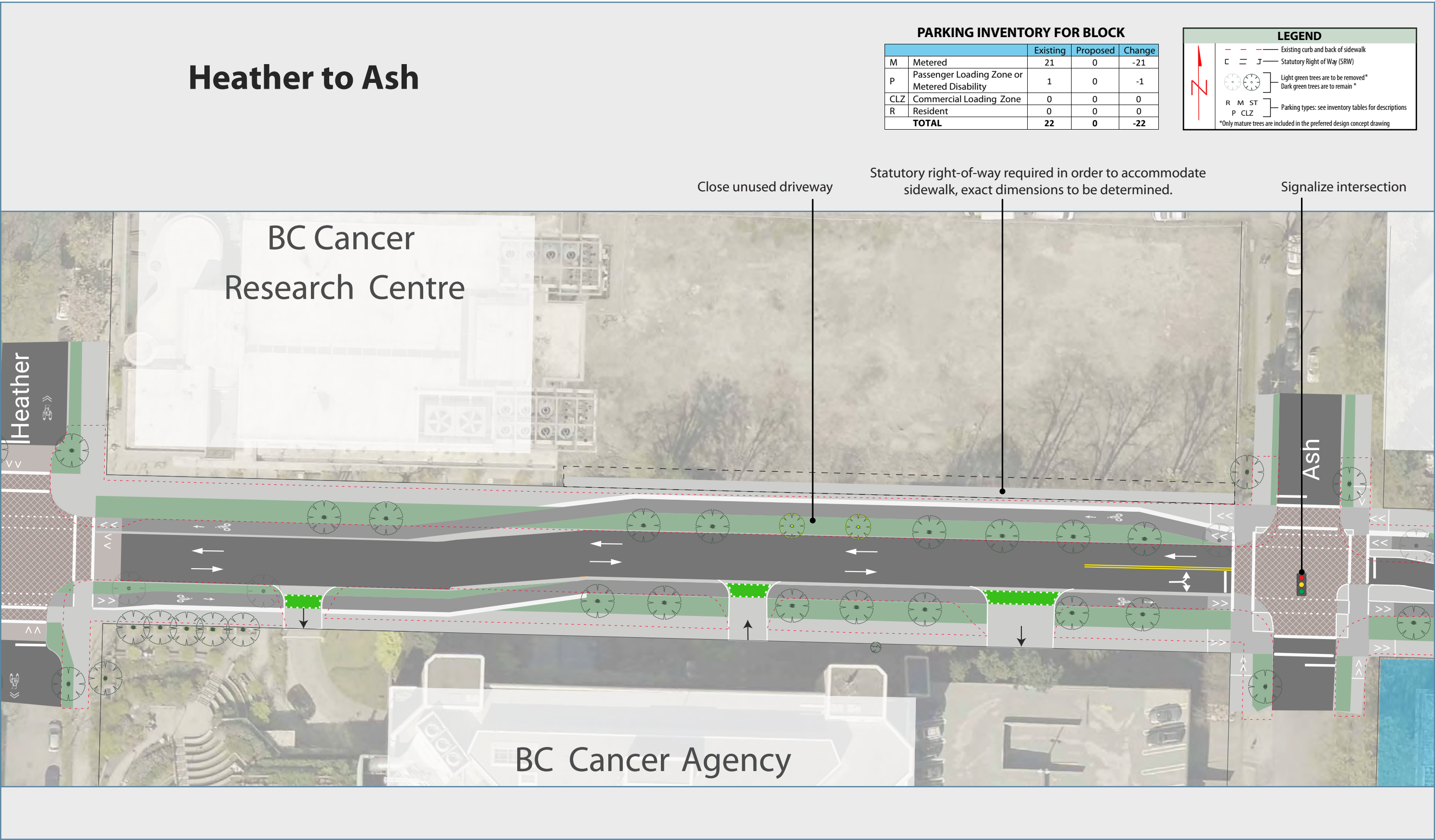
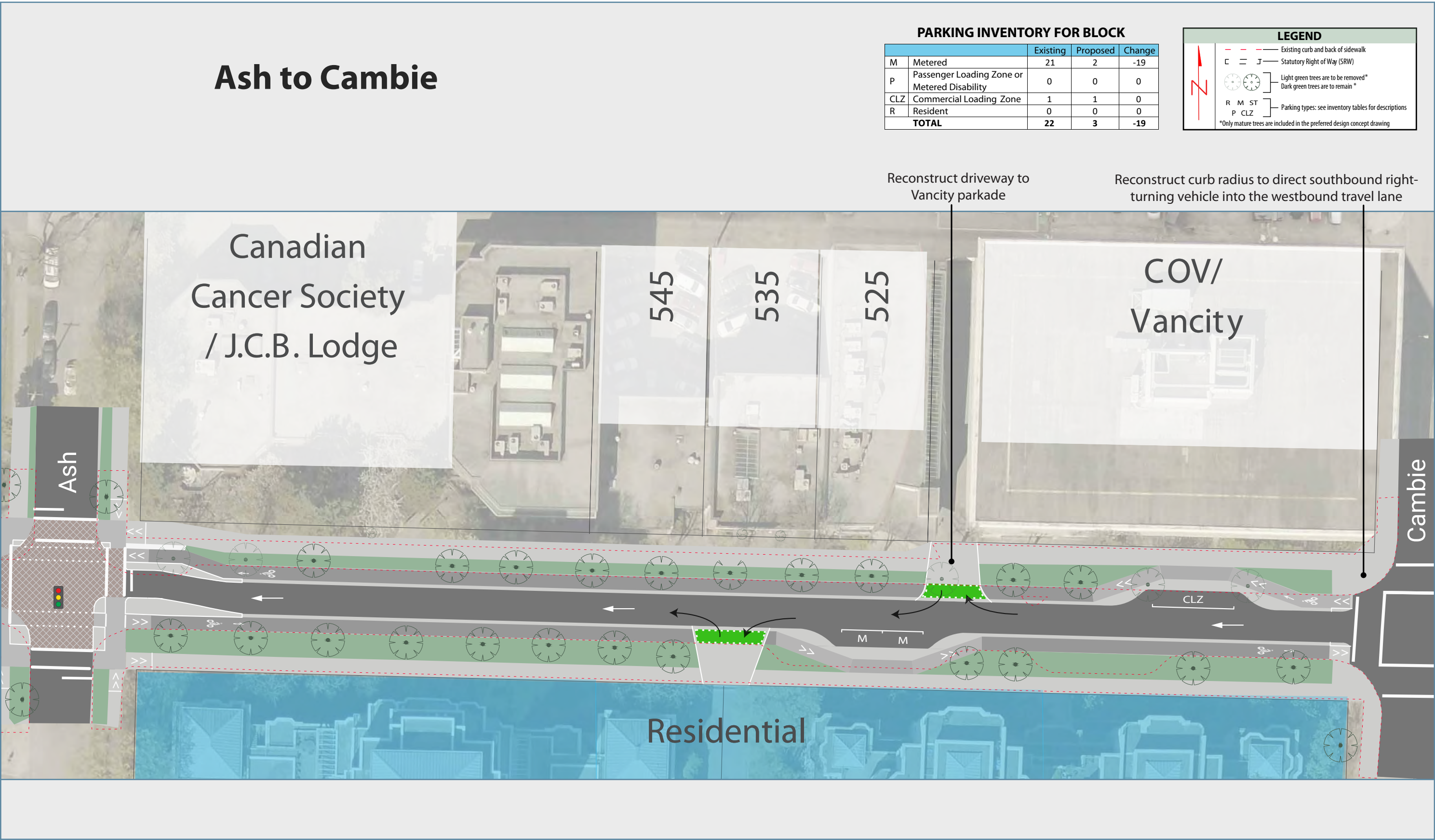


FIGURE 2E:
Preferred Design Concept: Ash Street to Cambie Street



3. OTHER DESIGNS CONSIDERED

Several alternative designs were considered prior to the development of the preferred design concept. These are summarized in Table 1 along with the reasons why these were removed from consideration.

TABLE 1: ALTERNATIVE DESIGN OPTIONS CONSIDERED

DESCRIPTION OF OPTION	REASON FOR REMOVAL
Traffic calming including speed humps, vertical and horizontal deflection, etc.	Traffic calming reduce motor vehicle speeds and improve the interaction between pedestrians, bicyclists, and other street users. Some of these treatments, e.g., raised intersections, curb extensions, raised crosswalks, etc. have been incorporated into the preferred design concept. However, traffic calming alone would not bring traffic volumes below the City's typical threshold for a shared roadway due to the demand of people who need to go to the Health Precinct.
Re-routing bicyclists to a parallel street	<p>Several parallel streets were considered for short-distance detours for bicyclists around the Health Precinct. These included the alley between W 10th Avenue and Broadway. However, there is poor sight distance at many of the driveways in this alley, significant interaction and cross streets with service vehicles, and difficult street crossings at major intersections that would likely discourage bicyclists from using this route and result in very little detour from W 10th Avenue. W 12th Avenue is an arterial traffic route and not a comfortable bicycling route. There may be future opportunities to incorporate bicycling facilities as part of a future reconstruction of Broadway, but this is not imminent.</p> <p>It was however recognized that the City should improve the W 7th Avenue and develop W 14th Avenue bikeways to give people an alternative to W 10th Avenue. Nevertheless it is recognized that W 10th Avenue is the most direct route for many bicyclists including those coming to the campus and that there will always be a significant volume of bicyclists using W 10th Avenue.</p>
One-way traffic flow between Cambie and Willow	One-way traffic flow (westbound) for the block between Ash and Cambie Streets has a minimal impact on the Health Precinct and is a feature of the preferred design concept. Ash Street to Williwow Street, there are a number of traffic and circulation impacts and as such this option was removed from consideration.
Protected bike lane westbound (uphill) and shared roadway eastbound (downhill)	This option would provide physical separation in the westbound (uphill) direction but would have bicyclists share the roadway in the eastbound (downhill) direction as they do currently. This only provides separation in one direction and so does not meet the City's goal to improve 10th Avenue to be a safe and comfortable option for people of all ages and abilities to bike.

Bi-directional bikeway on north or south side of W 10th Avenue	Options for a bi-directional bikeway on either the north or south side of the street were investigated. The primary concerns with bi-directional bikeways on one side of the street is that other road users, e.g., pedestrians, turning motorists, etc., often do not expect bicyclists coming from both directions. As a result, these types of bike facilities work best where there are few driveways, pedestrian crossings, etc. and it would be difficult to transition the facility from one side of the street to the other to minimize interactions with the emergency room driveways on the south side of the street and the passenger loading zones on the north side of the street.
Shared Street	The idea of a shared street environment was considered, but there were concerns that motor vehicle traffic volumes are too high on this corridor and that the design would not provide sufficient delineation between modes of travel. In particular, there are significant design challenges in making the distinction between pedestrian and motor vehicle space for sight-impaired and blind pedestrians. There was also a concern that bicyclists may ride in the pedestrian space given the street's high vehicle volumes.
Elevated Bikeway	This was considered at a high level and removed due to concerns about steep grades to achieve the necessary clearance over intersection streets, usability, high costs, connectivity to the surrounding land uses as well as intersection bike routes, impacts on the streetscape and tree canopy, and convenience. If it isn't easy to access and egress by bike, people would likely choose to continue using the street.

4. OVERVIEW OF THE PREFERRED DESIGN CONCEPT

The key elements of the preferred design concept include:

- Maintaining two-way traffic flow between Oak Street and Ash Street.
- Converting the block between Cambie Street and Ash Street to one-way westbound.
- Improvements to the pedestrian realm: raised intersections, raised crossings, bulges, etc.
- Creating unidirectional protected bike lanes on either side of the street.
- Maintaining critical hospital functions including ambulance service routes, access to the emergency room, and loading functions.
- Retaining critical access to the services and clinics along W 10th Avenue, including increasing the number of passenger pick-up and drop-off spaces and as much priority and accessible parking as possible.
- Minimizing the loss of mature and significant trees.
- Maintaining 2-way traffic on all side streets.

Each block is unique along the corridor and as such different trade-offs were considered in every block to determine how space would be used to accommodate the design needs. These are summarized in Table 2.

TABLE 2: CONSIDERATION OF TRADE-OFFS

ELEMENT	CONSIDERATIONS
Bicycling Infrastructure	Are there places where the desirable bike lane width can be narrowed?
Motor Vehicle Circulation	The Cambie to Ash Street block was converted to one-way westbound to be able to accommodate protected bike lanes without significant loss of trees
On-Street Parking	Which parking user is most critical and where do they need space? Where can less critical parking be relocated or removed to create space for high-priority street uses?
Tree Removal	Where can trees be removed to create space for high-priority street uses? Are there locations where this is the only trade-off that can be made?
Statutory Right-of-Way	Are there strategic locations where it makes sense to encroach the sidewalk into private property to accommodate a better design for everyone?

4.1 PEDESTRIAN REALM

Intersections:

- Raised intersections were included at the Willow Street and Heather Street intersections to bring all road users to the same grade as the sidewalk. This has a number of benefits including minimizing grade changes for vulnerable pedestrians. Raising the intersection also slows drivers entering intersection.
- A raised crosswalk is included on the east leg of the Laurel Street (east) intersection. A raised intersection is not possible at this intersection because the primary ambulance response routes between Oak Street and Laurel Street (east) need to be maintained clear of bumps and delay.
- Curb bulges were used at intersections where vehicle turning paths allowed this design. These treatments shorten crossing distances and improve visibility of pedestrians at intersection crossings.

Accessibility:

- Curb ramps and/or refuge spaces should be used at all pedestrian crossings that are not at sidewalk grade, and where possible, intersection corners should be designed to include curb ramps at 90-degrees to the street to align with the crosswalks and define the safest path across the intersection.

4.2 HEALTH PRECINCT OPERATIONS

Emergency Room and Ambulance Movements:

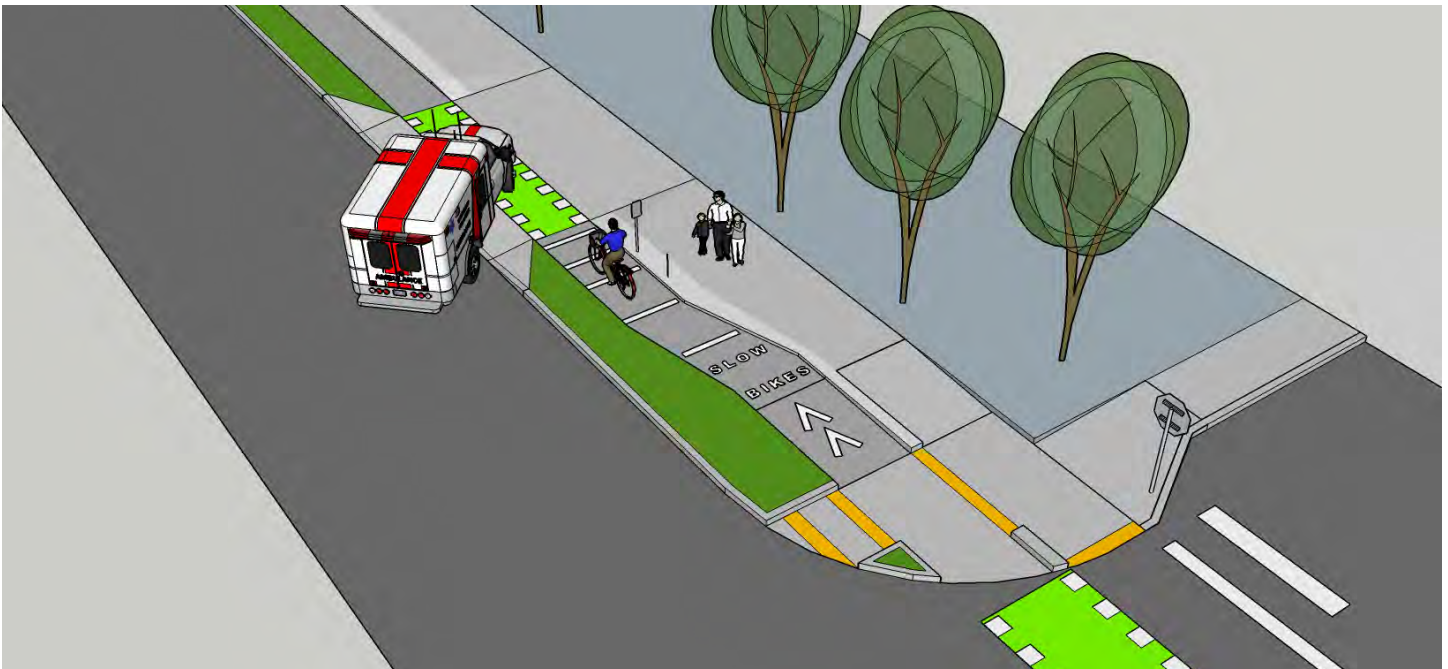
- The primary access and egress routes for ambulances on W 10th Avenue are to and from Oak Street, Laurel Street (west), and Laurel Street (east). Treatments that could slow response time, such as raised traffic calming elements were not applied west of the Laurel Street (east) intersection.
- The emergency room driveways are subject to the same rules of the road as any other driveways, however, it is recognized that these locations are unique locations and so managing modal

interactions is of the highest priority. A number of striping, signage, and design elements are proposed to increase awareness between modes and to manage vehicle and bicycle speeds at these driveways. The access driveway is particularly important as drivers are turning across the bikeway and may be more panicked and rushing to bring patients to the emergency room. Their entry speeds need to be managed to provide safe use of the street for others, including pedestrians, bicyclists, and people using the emergency room drop-off. Potential design treatments for these driveways are highlighted on Figure 3. Vancouver has an existing example of a bike lane crossing an ER driveway at St. Paul's Hospital on Burrard Street.

Service Vehicles:

- W 10th Avenue is critical to the day-to-day function of the hospital and includes deliveries and loading to numerous buildings and access to the primary loading court. Driveways and intersections were designed for the appropriate design vehicles servicing the precinct.

FIGURE 3: EMERGENCY ROOM DRIVEWAY TREATMENTS.



Traffic Flow:

- As described earlier, maintaining two-way traffic flow between Oak Street and Ash Street was important for the Health Precinct partners. However, one-way traffic flow in the westbound direction between Cambie Street and Ash Street has limited impact on Health Precinct operations. Providing one-way traffic flow in this block allows protected bike lanes to be developed within the existing curbs and minimal impact to mature and significant trees.
- It is recommended that the W 10th Avenue / Ash Street intersection would be signalized. This would help with traffic operations at this intersection and would improve the interactions between different road users.
- The City recommends introducing a dedicated east-west bicycle/walk phase at the Oak Street intersection.

4.3 BICYCLING INFRASTRUCTURE

- The recommended design features uni-directional protected bike lanes on either side of the street throughout the Health Precinct. It is expected that protected bike lanes would not only better organize roadway space, but would improve interactions between different modes. There would be clear expectations for where bicyclists will be on the street and clear identification of right-of-way. These features are summarized on Figure 4.
- The majority of the preferred design concept includes a physical buffer between the bike lane and the travel lane (as shown in the example shown on Figure 3). This provides a physical separation for bicyclists and prevents vehicles from using the bike lane to drop-off passengers.
- The bikeway will be “wrapped” behind passenger loading zones and accessible parking spaces to eliminate conflicts between people driving in/out of these spaces and people biking along 10th Ave.. These areas are recommended to be built at sidewalk level and require a “landing area” between the parking space and the bikeway to give people a comfortable space to get in and out of their vehicles. Figure 5 shows an example from Vancouver, WA of how this space could be delineated (although without the bike lane).



FIGURE 4: ELEMENTS OF A PROTECTED BIKE LANE



FIGURE 5: DELINEATED LANDING AREA IN VANCOUVER, WA

4.4 ON-STREET PARKING

- Table 4 shows the existing on-street parking supply on W 10th Avenue by block and the type of parking. Table 5 shows the proposed breakdown of parking for the preferred design concept.
- On-street parking plays a critical role at certain locations to provide door or near-door access for the various clinics along W 10th Avenue. This includes passenger loading zones for drop-off and pick-up of patients at the Eye Care Center and the Mary Pack Arthritis Center. Short-term parking also serves short-stay visits such as checking patients into appointments, etc.
- In order to meet demand for passenger loading zones (PLZ) and for more disabled parking, the preferred design concept:
 - Expands PLZ space at the Eye Care Centre.
 - Expands PLZ space at the Mary Pack Arthritis Centre.
 - Adds new accessible parking spaces on 10th Avenue.
 - Retains accessible parking at the Blusson Spinal Cord Center with access from W 12th Avenue and the driveway onto W 10th Avenue closed.

4.5 TREE REMOVAL

- The design attempted to minimize the impacts to mature and significant trees, but some trees will need to be removed to accommodate priority street functions in certain locations.
- The preferred design concept provides space to plant new trees. Specific new tree placement will be determined during detailed design.

TABLE 4: EXISTING ON-STREET PARKING INVENTORY BY BLOCK AND PARKING TYPE

	OAK TO LAUREL	LAUREL TO LAUREL	LAUREL TO WILLOW	WILLOW TO HEATHER	HEATHER TO ASH	ASH TO CAMBIE	TOTAL
Metered	0	4	17	14	21	21	77
Passenger Loading and Disability Parking Spaces	0	0	2	3	1	0	6
Commercial Loading Zone	0	0	0	0	0	1	1
Resident Permit	12	7	0	0	0	0	19
TOTAL	12	11	19	17	22	22	103

TABLE 5: PROPOSED ON-STREET PARKING INVENTORY BY BLOCK AND PARKING TYPE

	OAK TO LAUREL	LAUREL TO LAUREL	LAUREL TO WILLOW	WILLOW TO HEATHER	HEATHER TO ASH	ASH TO CAMBIE	TOTAL
Metered	0	0	0	0	0	2	2
Passenger Loading Zone and Disability Parking Spaces	0	0	8	14	0	0	22
Commercial Loading Zone	0	0	0	0	0	1	1
Resident Permit	7	3	0	0	0	0	10
TOTAL	7	3	8	14	0	3	35

Note: There will also be some changes to parking on side streets not shown in these tables.

4.6 STATUTORY RIGHTS-OF-WAY

Statutory rights-of-way (SRWs) are recommended at three locations:

- On the north side of W 10th Avenue, in the eastern half of the Heather-Ash block. This will extend the sidewalk into the vacant lot currently owned by PHSA. This SRW would allow retention of most trees in this block.
- On the south side of W 10th Avenue, for most of the block between Willow Street and Heather Street. This will extend the sidewalk into the lawn in front of the Heather Pavilion and allow a bikeway to be developed behind the trees and retention of on-street parking and two-way traffic flow.
- On the north side of W 10th Avenue, between Willow and Heather to accommodate disability parking spaces, bikeway, and sidewalk.

Accessibility Working Group Workshop Summary Reports

Summary Report of Findings and Recommendations: The 10th Avenue Corridor – Accessibility Working Group Planning Session

Date published: September 23, 2016

Prepared by: The Rick Hansen Foundation

Introduction/Presentations

The 10th Avenue Corridor – Accessibility Working Group Planning Session was held at City Hall in Vancouver, on July 15, 2016. Attending were 31 participants representing community health, emergency transportation, disability advocacy, seniors and active transportation (see Appendix 2 for complete list).

Purpose of the West 10th Avenue Precinct workshop:

- Discuss ideas to improve the current proposed design to maximize benefits for vulnerable road users.
- Recommend next steps for engaging vulnerable user stakeholder groups in the development of the 10th Avenue Corridor project.

Opening remarks and a presentation were provided by City staff from the Transportation Department. The presentation included an overview of the City's key Transportation 2040 objectives, such as the zero transportation fatality goal and increasing active transportation mode share by designing for people of All Ages and Abilities (AAA). Staff also provided a summary of the current 10th Avenue Corridor proposal, including a history of consultation process, the project "goal posts", a review of all pedestrian improvements included in the current proposal, and a review of the session topics for further discussion. Also presented was the opportunity for the 10th Avenue Health Precinct to be designated a "living lab" for ongoing monitoring, analysis and input from stakeholders and users.

Several workshop participants were not supportive of any design with the potential to increase the amount of cycling on this stretch of 10th Avenue as they felt this would worsen conditions for vulnerable pedestrians. As a result, it was a general concern that safer patient access was not the main priority of the design under development. Although City staff were clear that the focus of the workshop was improvements to 10th Avenue as a bike route and would not entail discussing options that involve banning people from biking through the Health Precinct by re-routing them, many participants felt strongly that this ban and re-routing was required. Some of

the key reasons participants mentioned in recommending this re-routing included: risk will increase as the project will encourage more people to bike on this segment of 10th Avenue; vulnerable users will have fewer parking options for convenient access to health services; people biking generally behave disrespectfully to people walking and are unaware of the potentially vulnerable state of pedestrians in the precinct.

Key Findings

The workshop participants were divided into two groups and the following summary represents a synthesis of the discussions that happened at both tables.

1. Safe Crossings for Vulnerable Pedestrians

- Some participants felt that the new plan does not adequately address safe crossing of bike routes by vulnerable pedestrians at intersections and at passenger zones when accessing services along the Health Precinct. These participants felt that people biking are unlikely to expect vulnerable pedestrians to be crossing bike paths, and that they generally don't show cautious behavior elsewhere in the city.
- Participants offered possible solutions to help improve crossing conditions, such as: traffic signals at intersections or flashing pedestrian lights, cyclist dismount signage and barriers, LEDs embedded in the pavement, gates used for hours when 10th Ave through the Health Precinct permits only "limited cycling", corner bulges, bollards and no curb, better signage that clearly communicates vulnerable pedestrians crossing, signage that identifies the area as a healthcare zone, and educational/awareness programs.

2. Parking Near Health Services

- Sufficient parking near health services was raised as a more significant concern for people with acute accessibility needs rather than the general public. Some participants felt that navigating longer distances is not only inconvenient but may also be unsafe or infeasible for some patients. Some felt that reducing nearby parking may result in too much congestion at the existing passenger zones if they remain the same size, since they are already shared between the general public, taxis, HandyDART, and emergency vehicles.
- Participants recommended that more parking should be provided close to services in the Health Precinct, and parking should be more affordable.

3. Passenger Zones Adjacent to Health Services

- Some participants felt that there are not currently enough passenger zones in the Health Precinct and those that exist are not long enough to safely allow for vans with lifts to unload and load passengers. It was mentioned that passengers typically have to wait to be picked up but there isn't currently any convenient seating protected from weather near the passenger zones.

- Some participants recommended that more passenger zones be installed near core services and that they be better designed than they are currently. For comfort and safety, it was suggested that the City provide seating and highly visible shelters at the passenger zones including the drop off pick up areas and near the entrances of medical buildings. Others suggested developing a scheduling and notification system to notify drivers that patients were ready for pick-up. A reservation system was to be used for the passenger zones. A driver waiting area was also suggested, which could be provided a short distance away rather than occupying the passenger zone.

4. Access to the Health Precinct by Public Transit

- The Health Precinct is located on a steep slope when traveling from/to the busy transit routes on West Broadway, which are the primary transit access routes to/from the Health Precinct. As a result, some participants pointed out that the pedestrian route is a significant challenge for some seniors and persons with disabilities due to the steep grade between Broadway and 10th Ave.
- Some participants suggested providing level landings with seating along the route in strategic locations, such as at Oak St and 10th Ave, so people accessing health services from Broadway will have an opportunity to rest and more safely navigate when traveling up and down the slope.

5. Wayfinding, Information and Awareness

- Participants felt that many people entering the Health Precinct are confused and need support in finding parking and health services and that this issue is compounded when the person may have health impairment, which may cause additional risk when crossing bike lanes.
- Participants provided suggestions to help increase safety and independence, and to minimize anxiety and confusion of people in the Health Precinct, such as consistent precinct signage (including consistent symbols and graphics in wayfinding), poster board maps, and better travel information from doctor and medical services offices.
- Some participants also suggested that a hospital/healthcare zone (similar to a school zone) be implemented, with visible signage, slower speed limits, and caution signs, combined with periodic awareness events. Participants felt that this would encourage people passing through the Health Precinct to travel more slowly, and be more cautious and aware in the area. It was also mentioned that education and awareness programs could be implemented to help reinforce this understanding.

6. Research and Usage Data

- Some participants felt that City planning efforts need to better incorporate projections of the future use of the Health Precinct by patients, people walking, cycling, and vehicle traffic.

- It was suggested that any available research by various organizations and service providers in the Health Precinct should be considered in planning decisions.
- Some participants echoed interest in the concept of a “Living Lab” in the Health Precinct, emphasizing that it could be created in cooperation with a research partner to provide peer-reviewed research that would help support ongoing planning and design decisions related to the many challenges in the health precinct.

Next Steps

There appeared to be solid support from the group to return for at least one more workshop session, demonstrating a commitment to engage with City staff towards a mutually beneficial plan for all groups using the 10th Avenue Corridor. Several participants felt strongly that future workshop discussions should be structured as a single group, rather than dividing participant discussions across multiple tables.

This summary of contributions made during the workshop will be provided to participants in advance of any future reconvening of workshop participants and posted online.

The provision of the summary report and request for feedback will help confirm that participants' input is carefully listened to and respected, and in turn will be considered when moving forward with the design process.

Appendix 1 - Table Discussion Summary Notes

The following raw notes represent feedback given by workshop participants to City staff. The notes were compiled by The Rick Hansen Foundation facilitation team based on audio recordings, note taking, and sticky notes contributed by participants. These points are not verbatim, but aim to capture all participants' commentary received through these various data collection methods during the workshop. The summary notes are organized by the four topics used to facilitate table discussions during the workshop: pedestrian realm amenities, accessing the precinct, interaction between road users, and education/engagement.

SESSION TOPIC: 1. Pedestrian Realm Amenities

Comments and Concerns:

- People should be prioritized before trees, particularly the constituency accessing the West 10th Avenue precinct for health reasons.
- Pick-up of patients takes longer than drop-off and should be a focus in design. It's difficult to estimate pick up time, so someone may be kept waiting longer than expected and require a safe and comfortable place to wait. Also, people may need to wait for a patient finishing an appointment.
- Pedestrian route from transit exchange on West Broadway to 10th Avenue is very steep. Although Oak offers the lowest grade, it still introduces a risk to aging adults and people with mobile impairments trying to physically navigate the distance. It warrants extra attention to safe crossings at Oak/10th Avenue, and inclusion of places to rest along the way.

Opportunities/Solutions:

- A shelter at the staging areas that further helps separate the patient passenger zone from the bike lanes, adding a visual cue for cyclists to travel with caution, and providing shelter for waiting pedestrians.
- Curb side waiting amenities for an accessible, safe, dry, and welcoming environment should be planned for patients—readily identifiable, designated waiting area, ergonomically designed benches, shelter from sun/rain, landscaping, lighting, etc.
- Gates and/or flashing lights at key pedestrian crossings over the bikeway could help reduce stress and increase safety.
- Some participants were interested in paving over the grass boulevards that currently exist between the curb and sidewalk, allowing sidewalks to be wider.
- Seating and level resting areas should be provided along Oak Street, before reaching 10th Avenue, to ensure pedestrians have a place to rest during the climb up or down the Oak Street grade. Amenities should also be provided at Oak/10th Avenue to offer rest opportunities before crossing the intersection, or traveling down to West Broadway.

SESSION TOPIC: 2. Accessing the Precinct

Comments and Concerns:

- Considering that the Health Precinct serves the entire Province of BC, regulated and enforced passenger zones and accessible parking are essential and should not be decreased or compromised.
- Adequate parking is essential; removing any parking will put more stress onto existing passenger zones. Lack of long-term parking results in drivers staying too long in temporary parking.
- Parking close to building entrances is needed for people with compromised health, more accessible spaces are needed. The topic of parking is not generic; it must serve individuals, recognizing that people have varying abilities and health related needs.
- City Planning department needs to work better with City Engineering department on a case by case basis regarding on-street and off-street parking, pedestrian accessibility, and to ensure safety.
- Concerns that the issues and projections around parking supply and demand are not being articulated at a high enough decision-making level of VGH's and the City's planning authorities.
- Ideally, the final design would support:
 - Door-to-door drop-off/pick-up in front of every service (doesn't require long distance of travel), and drivers can leave their car for a period of time to help patients inside.
 - Drop-off/pick-up doesn't require crossing in front of car traffic or bike lanes. Safe off-street access to buildings is also important.
 - Drivers can park close to medical buildings and take patients inside buildings.
- Currently, lift equipped vans sometimes have to open into bike lanes. In future designs, accurate width requirements and best practices to accommodate wheelchair vans must be considered.
- The Blusson building needs dedicated passenger zones. Currently, taxi drop-off at Blusson is awkward with existing drop-off/pick-up taking place in the roadway blocking traffic. HandyDART vehicles use accessible parking at Blusson for staging, further restricting available accessible parking spaces.
- The intersection of the north leg of Willow St and West 10th Ave is very chaotic, and presents a challenge for persons with mobility impairments to park and access ICORD and the Blusson Center. On and off street accessible parking is an urgent concern given likely increases in citizens with mobility impairments at and adjacent to this intersection.

- HandyDART or emergency services vehicles often block the ramp at BC Cancer Agency drop-off/pick-up area.
- Density of Health Services: how many more people will be accessing this area in 5-10 years?
- Oak/10th Avenue may be the heaviest used intersection/crosswalk for vulnerable pedestrians using transit.

Suggested Opportunities/Solutions:

- Affordable parking options should be made available.
- Raised crossings should be explored.
- Drop-off reservations system could be implemented for passenger zones.
- Time restrictions on bike route could be put in place, similar to parking restrictions or vehicle travel lane times.
- Build another parkade close to health services.
- Raise the drop-off ramp at service and emergency speed exits.
- Treat the precinct as a hospital zone (similar to a school zone) with lower speed limits, speed bumps, signage, etc.
- Design should include curb bulges at all corners.
- Need devices at crossings to slow the speed of people cycling.
- Put in traffic signals in place of all-way stops as some participants feel they are better than all-way stops because people cycling tend not to stop at stop signs.
- Design a flush public road with no curbs, nor any raised sidewalks or bikeways – delineating space between road users with bollards that can be driven over for emergency vehicles.
- Create a bike overpass so that people cycling through the Health Precinct are grade separated (also, need to consider people cycling that are trying to access the area).
- Doctor's offices/VGH/health services should provide more useful travel information to a patient before a visit, keeping in mind that many people are arriving from out of the city (e.g. maps, tips, parking).
- Medical facilities should provide more off-street parking to serve their customers
- Revisit the bi-directional bikeway concept as it would remove pedestrian crossings of bikeway at the key pick-up/drop-off locations.

SESSION TOPIC: 3. Interactions between Road Users

Comments and Concerns:

- Need to plan bike lane with destinations in mind to stop sidewalk cycling.
- Cyclists are currently using the sidewalk to access services.
- Existing volume and speeds of cyclists are too high.
- More road user interaction data between pedestrians, motor vehicles and bike needed—one participant felt there are more near misses between people biking/walking than between people driving/walking.
- Important to acknowledge added risk with more bikes traveling in area. Need to make interaction safer, but more cyclists will add risk.
- Unsafe crossings make it challenging for sight and hearing impaired people.
- Cyclists need to obey traffic signs, there should be more enforcement.
- There is concern that cyclists will ride on the sidewalk at passenger zones unless a barrier is installed.
- There are more people walking, therefore pedestrians should be a priority (as per transportation panel survey).
- We should be calling people patients, not pedestrians in communications. People can be disoriented or drugged after procedures and it might not be obvious to passers-by on bikes or cars.
- Project will create more safety for cyclists at the risk of seniors and visually impaired that have to cross bike lanes.

Suggested Opportunities/Solutions:

- Create a cycling overpass, whereby cyclists are grade separated – however, cyclists will need a way to access the medical precinct.
- Cyclists should dismount and walk through the health precinct (e.g. Lumberman's Arch and 2nd Beach).
- Traffic calming and pedestrian prioritization achieved from half and full height crosswalk installations, optional corner bulges increase the visibility of any pedestrian for they now stand in the sight lines of motorists and cyclists.
- Flexible traffic bollards are an optional traffic calming tool for specific intersection or crosswalk applications.
- Intersection crosswalks need devices to slow the speed of cyclists. Install traffic signals as some participants felt that all-way stops tend to slow motorists and cyclists, but not stop the traffic.

- Install railway crossing arms at pedestrian crossings across bikeway to physically stop cyclists neglecting to yield to pedestrians.
- Controlled hours of operation for bikeway usage.
- LEDs in pavement, along with audible cues at pedestrian crossings.

SESSION TOPIC: 4. Engagement / Education

Comments and Concerns:

- Many people arriving to the precinct have never even been to a City before – it is confusing.
- Doctor's offices / VGH need to do better job with access and wayfinding information.
- Pedestrians accessing this area can be characterized as employees, customers, guests, new to the city or to the country, and as patients. Messaging and graphics on signs can be designed for the most vulnerable form of pedestrian accessing this precinct.
- People can be disoriented due to health impairment, convalescing, or just discharged from a medical procedure and it might not be obvious to motorists or cyclists.
- Eye Care Centre – people with limited vision need large signs, audible signals at pedestrian crossing and passenger zones.
- What is the projection for people walking, cycling and patients to area in the future? Need to plan for these projections.

Suggested Opportunities/Solutions:

- Adding consistent signage and poster board maps would help to enhance wayfinding, increase safety and independence, and minimize anxiety and confusion.
- Better travel information from doctor and medical services offices before a journey/trip/visit (e.g. maps, parking locations, recommended transit and/or driving instructions).
- Consider ESL (English as a second language) stress of accessing site and incorporate symbols and graphics in wayfinding.
- Treat the precinct as a hospital zone (similar to a school zone) with appropriate signage, and traffic calming features. Change the term "pedestrian" to "patient".
- Educate cyclists to slow down and respect vulnerable pedestrians, and importance of obeying traffic signs. Organize workshops for cyclists, leverage school programs.

OTHER DISCUSSION POINTS:

- Questions around timeframe for Segal development, which impacts Blusson access.

Appendix 2 – Workshop Attendees

NAME	GROUP
Lisa Corriveau	Active Transportation Policy Council
Tanya Paz	Active Transportation Policy Council
Neil Belanger	BC Aboriginal Network on Disability
Nahum Ip	BC Ambulance Service
Dariusz Pac	CNIB
Jane Dyson	Disabilities Alliance of BC
Sherry Labermeyer	Eye Care Centre
Lowell McPhail	ICORD
Chris Marek	Mary Pack Arthritis Centre (VCH)
Greg Pyc	Neil Squire Society
Brian Gibney	Persons with Disabilities Advisory Committee
Cathy Browne	Persons with Disabilities Advisory Committee
Jacques Courteau	Persons with Disabilities Advisory Committee
Jill Weiss	Persons with Disabilities Advisory Committee
Laura Mackenrot	Persons with Disabilities Advisory Committee
Mary-Jo Fetterly	Persons with Disabilities Advisory Committee
Tasia Alexis	Persons with Disabilities Advisory Committee
Tom Patch	Persons with Disabilities Advisory Committee
Colleen McGuinness	Seniors Advisory Committee
Dellie Lidyard	Seniors Advisory Committee
Eva Wadolna	Seniors Advisory Committee
Scott Ricker	Seniors Advisory Committee
Thomas Crean	Seniors Advisory Committee
Cindy Loo	Vancouver Coastal Health
Mary Nieforth	Vancouver Coastal Health
Westley Davidson	Vancouver Coastal Health
Debbie Finlay	Voice of the Cerebral Palsied
Laurette Yelle	Voice of the Cerebral Palsied
Bruce Gilmour	Facilitator (Canadian Barrier Free Design)
Jenny Blome	Facilitator (Rick Hansen Foundation)

UNABLE TO ATTEND

Representatives	Children, Youth & Family Advisory Committee
Keith Sigurdson	HandyDART
Brad McCannell	Facilitator (RHF/ CBFD)

COV STAFF

Staff Name	Department
Dylan Passmore	ENG - Transportation Design
Paul Storer	ENG - Transportation Design
Lynn Guilbault	ENG - Transportation Planning
Christine Edward	ENG - Transportation Planning
Eileen Curran	ENG - Streets Design
Anita Molaro	PLN - Urban Design, Devl Services
Cara Fisher (Notetaker)	ENG - Transportation Planning
Alex Liaw (Notetaker)	ENG - Transportation Design
Mandy So	PLN - Development Services
Lee Beaulieu	PLN - Development Services - Landscape



PARTICIPANT INPUT SUMMARY

10th Avenue Health Precinct Accessibility Working Group

Hosted by the City of Vancouver

Workshop facilitation and reporting by Susanna Haas Lyons

October 13, 2016, 9:00 am – 12 pm

Town Hall Meeting Room, Vancouver City Hall

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BACKGROUND

The City of Vancouver is upgrading the 10th Avenue Corridor to be more safe, convenient, comfortable, and fun for people of all ages and abilities to walk and cycle.

In April 2016, the City presented three design options for the 10th Avenue Corridor at Public Open Houses, which were based on stakeholder input. Concerns were raised about accessibility in and around the Health Precinct (West 10th Avenue from Yukon to Oak).

In response, the City convened an Accessibility Working Group in July 2016 to give input on accessibility in and around the Health Precinct; 28 stakeholders participated. At this workshop, some participants expressed strong opposition to having the bike route on 10th Avenue. Other key issues that were raised included:

- ➔ Need for safe crossings for vulnerable populations;
- ➔ Parking near health services;
- ➔ Passenger zones adjacent to health services;
- ➔ Access to the Health Precinct by transit;
- ➔ Wayfinding, information and awareness; and,
- ➔ Research and usage data.

A second workshop with the Accessibility Working Group was held on October 13, 2016 to provide updates on key issues and explore additional approaches to address accessibility concerns in the Health Precinct. City presentations and participant discussions focused on the priority issues identified during the July meeting.

This is a summary report of the October 2016 meeting of the 10th Avenue Health Precinct Accessibility Working Group. The report represents themes heard from individual participant worksheets as well as questions and discussion in response to the City's presentation.

Next Steps for the 10th Avenue Health Precinct planning include:

- Check-in on November 7, 2016 with Health Precinct Stakeholders including participants from the Accessibility Working Group sessions
- Design information for the upcoming Public Open House to be posted online mid-November 2016
- Four Public Open House events to be held in late November 2016
- Presentation to Council in 2017

PARTICIPANT INPUT: KEY THEMES

SAFE CROSSINGS FOR VULNERABLE PEDESTRIANS

What Participants Like

- “City staff is making an effort to improve the planning, planners have looked at trying to decrease risk of accidents”
- Safer pick up and drop off locations
- Safer road crossings
- Safer bike lane crossings

Participant Concerns and Suggestions

- Risk of injury to people crossing bike lanes and roads
- Depending on bicycles yielding is not enough to ensure safety, consider requiring dismounting
- An enforcement plan is needed
- Reroute the bike route away from the Health Precinct
- HandyDART drivers will be impacted if the bike traffic is continuous
- Willow and Laurel Streets are congested, impacting pedestrian crossing safety

PARKING NEAR HEALTH SERVICES

What Participants Like

- Staging areas for drivers to wait for patients

Participant Concerns and Suggestions

- Parking issues cannot be separated from the design of West 10th
- Need more parking to support caregivers accompanying patients
- 30-minute staging areas are too short
- Blusson Spinal Cord Center (BSCC) visitors' parking needs are insufficiently addressed
- Bicycle parking needed
- Vancouver Coastal Health has an important role to play in addressing parking issues

PASSENGER ZONES ADJACENT TO HEALTH SERVICES

What Participants Like

- “I feel heard regarding the July meeting”
- Longer and wider passenger zones
- Flush surface at passenger zones
- Sheltered passenger waiting areas

Participant Concerns and Suggestions

- Passengers crossing bike lanes may be unsafe
- Need additional width in passenger zones for accessible vehicles
- Insufficient passenger zone spaces for medical service buildings, in particular Blusson
- Passenger shelter at Mary Pack may conflict with HandyDART

WAYFINDING, INFORMATION AND AWARENESS

What Participants Like

- Recognizing Health Precinct in highly visible ways
- Cycle like a Canadian Campaign

Participant Concerns and Suggestions

- Enforcement required to achieve desired behaviours
- Rerouting the bike route is the safest solution
- Signage should be responsive to Health Precinct users
- Cross-institution collaboration needed

RESEARCH AND USAGE DATA

What Participants Like

- Living Lab research to understand design impacts

Participant Concerns and Suggestions

- Request for City commitment to respond to results of research

ACCESS TO THE HEALTH PRECINCT BY PUBLIC TRANSIT

What Participants Like

- Benches to support pedestrian travel on sloped streets
- Recognizing how street slope impacts pedestrians with disabilities
- Moving bus stop on Oak closer to 10th

Participant Concerns and Suggestions

- More bus stops accessible to Hospital Precinct
- Offer a shuttle to improve transit access to the Health Precinct
- Orient benches for passenger safety and convenience

CITY PRESENTATION

Dylan Passmore, Senior Transportation Engineer, City of Vancouver, presented a summary of what was shared by participants of the July Accessibility Working Group meeting, and the City's response to these concerns.

WHAT THE CITY HEARD

Desire to Reroute the Bike Route

The City heard that some participants strongly want cyclists to be routed around the Hospital Precinct, rather than continuing to be on 10th Ave. Some of the arguments behind this opinion include the perceived increase in risk to pedestrians with increased numbers of people biking, the reduction of parking options for vulnerable users, and the sense that people biking are unaware of vulnerable pedestrians and generally act disrespectfully.

The City is committed to clearly include this position in their Council Report on the 10th Avenue Corridor Project. In addition, the opportunity to present at Council is open to all.

Six Key Issues

The City's presentation addressed the six key issues raised by stakeholders during the July workshop, as reported on page three.

Proposed Changes in Plans for 10th Avenue Health Precinct

In response to the results of the July Accessibility Working Group meeting, the City made eight updates to the 10th Avenue Corridor plan:

1. Doubling the number of pick-up/drop-off spots in the passenger zones in front of the Mary Pack Arthritis Centre and Eye Care Centre
2. Flush surfaces at passenger zones
3. Shelters at the passenger zones
4. Single-file bikeway at passenger zones
5. Two fully raised intersections on 10th Avenue between the 4-corners of Willow and Heather Streets, and one raised crossing of 10th Avenue on the east side of the Laurel Street intersection (at the Mary Pack Arthritis Centre)
6. New traffic signal at Ash and 10th Avenue
7. Formalizing a “Hospital Zone”
8. Commitment to “Living Lab”

DETAILED PARTICIPANT INPUT

The following pages detail the participants’ feedback on these and other proposed designs for the 10th Avenue Health Precinct. After hearing the City’s presentation on each topic, participants gave input via group discussion and individual worksheets, which are summarized below.

Sentences in quotation marks are direct quotes from a participant.

SAFE CROSSINGS FOR VULNERABLE PEDESTRIANS

What Participants Like

“City staff is making an effort to improve the planning, planners have looked at trying to decrease risk of accidents”

Safer pick up and drop off locations

- Passenger shelters and large refuge zones
- More pick up / drop-off spaces at Mary Pack and the Eye Care Center

Safer road crossings

- Signalling the intersection of 10th Avenue and Ash Street
- Additional yield markings
- Raised crosswalks and intersections
- Posting 30km/hour speed limit signs

Safer bike lane crossings

- The use of paint to reinforce yielding and looking for both pedestrians and cyclists at crossings
- Narrowing bike lanes at pick up and drop off sites to make cyclists aware that they need to slow

Participant Concerns and Suggestions

Risk of injury to people crossing bike lanes and roads

- Slow-moving, blind/visually-impaired and hearing impaired persons are at risk when crossing the bike lane between the pick-up/drop-off zones and medical service buildings
- “Clearly defined markings need to be at every intersection; these need to be both visual for the sight impaired but also have tactile effects for those that are blind.”
- Consider rumble strips or other texture changes to announce to bikers the need to slow down and give priority to pedestrians
- Granite texture to deter cyclists straying from the bike path may be difficult for wheelchairs and stretchers to access or cross

Depending on bicycles yielding is not enough to ensure safety

- Consider implementing bicycle dismount zones where crossings are congested.
- “How to get cyclists to stop and yield? Patients are slow moving. Cyclists tend to be impatient”

An enforcement plan is needed

- “People and cyclists who tend to ignore signs will keep on doing so with impunity”
- “How are you going to enforce rules that lead to understanding of vulnerable pedestrians and bikers being respectful of this area?”

Reroute the bike route away from the Health Precinct

- Vulnerable people need safe access to their medical destinations, making the Health Precinct a poor choice for a bike route

- “Moving the major bike route north of Broadway or south of the hospital would relieve the tension between pedestrians and cyclists”
- “Bike route should change for this section of 10th for safety. As a biker and Senior I do not see why this can’t be done. It would be safer and more cost-effective”

HandyDART drivers will be impacted if the bike traffic is continuous

- “Drivers do assist people into buildings, but their time is constrained, and may not have enough time to wait for cyclist traffic... the narrowed lanes will be busy all the time”

Willow and Laurel Streets are congested, impacting pedestrian crossing safety

- “Willow has a challenging grade for wheelchair users (especially manual), and cyclists go through the stop sign”
- Both Willow and Laurel have two-way stop signs only and are busy
- Consider a traffic signal to deal with traffic volume

PARKING NEAR HEALTH SERVICES

What Participants Like

Staging areas for drivers to wait for patients

Participant Concerns and Suggestions

Parking issues cannot be separated from the design of West 10th

Need more parking to support caregivers accompanying patients

- “Caregivers for patients frequenting facilities in the Health Precinct have limited options for parking in order to accompany the patient to their appointments”
- “Hospital transfers are often required by the hospitals to stay with the patient, and so temporary drop off zones are not adequate”
- “Upcoming new mental health building will increase parking needs in the area.”

30-minute staging areas are too short

- Staging “doesn’t address needs of patients to be accompanied by others when accessing buildings. 30 minutes is not enough time. Easier now with on-street parking”

Blusson Spinal Cord Center (BSCC) visitors' parking needs are insufficiently addressed

- "BSCC must have a dedicated drop-off. It is the busiest point on 10th for patient transport and non-emergency ambulance. This building has almost 100% disabled user group with high need for drop-off and accessible parking"
- "The steep grades necessitate accessible parking adjacent to BSCC. Many manual wheelchair users cannot navigate these hills and, therefore cannot access the center via public transit. HandyDart, personal vehicles, or taxis are their only options"
- Consider: "if access to parking at BSCC is blocked from 10th Avenue, it could be accessed via Heather or 12th"

Bicycle parking needed

- "I'm not entirely sure there is adequate bike parking outside at the VGH Cycling Center, which is reserved for VGH and Health Precinct staff. A possible solution may be to work with VGH to install bike racks on their property near entrances or off West 10th Avenue on the secondary streets"

Vancouver Coastal Health has an important role to play in addressing parking issues

- "Proximity of parking to facilities and enough parking availability are both problems that need to be dealt with in a timely way to coincide with proposed upgrades on 10th. Otherwise safety of health precinct users is in jeopardy. VCH has responsibility in this regard that has not been met"
- "VCH needs to realize and act on their parking obligations."

PASSENGER ZONES ADJACENT TO HEALTH SERVICES

What Participants Like

"I feel heard regarding the July meeting"

Longer and wider passenger zones

- Providing additional length in the pick-up and drop-off zones to accommodate more vehicles and make side loading possible

Flush surface at passenger zones

Sheltered passenger waiting areas

- "Love the sheltered passenger waiting zones"

- Might improve safety. “This might serve to alert cyclists of passengers waiting for pick up and cause a change in speed or to yield as needed.”

Participant Concerns and Suggestions

Passengers crossing bike lanes may be unsafe

- “I don’t like the way passengers at drop-off points have to cross bike lane.”
- “Making cyclists go single file could exacerbate the risk; cyclists get impatient very easily”

Need additional width in passenger zones for accessible vehicles

- “Need another 2-feet for safely getting out of vehicle in a wheelchair, exit ramps are 6 feet long”
- “Passengers getting off from the side of vehicles landing on the bike lane is a concern”
- Need “special provision for HandyDART offloading from the rear of the vehicle taking more space at the drop off”

Insufficient passenger zone spaces for medical service buildings, in particular Blusson

- Need passenger zones next to each medical building, not just a few
- “Drop off and parking for Blusson is a huge issue. Need to address this before the 10th Ave plan is started”
- Lack of turnout at BSCC will result in higher use of Eye Care passenger zones
- Laurel and Willow intersections need additional passenger zones

Passenger shelter may conflict with HandyDART

- The Mary Pack passenger shelter in the passenger zone will conflict with HandyDART drivers bringing patients to the door of building

WAYFINDING, INFORMATION AND AWARENESS

What Participants Like

Recognizing Health Precinct in highly visible ways

- “Love the concept of clear signage upon entering 10th Street. Maybe flags at each pole like they have on Cambie bridge”
- Use a well recognized symbol for the Hospital Zone

VGH Commuter Center’s Cycle like a Canadian Campaign

- “The Cycle like a Canadian Campaign is fantastic. Way to go”

Participant Concerns and Suggestions

Enforcement required to achieve desired behaviours

- “Signs and paint will not always help change bad habits. How are you going to enforce rules?”
- “I’d like to see a plan with VCH and VPD for monitoring enforcement of Health Precinct laws, speed limits and bike-route norms at least for the first few years”

Rerouting the bike route is the safest solution

- “Wayfinding improvements are good but they aren’t good enough to prevent accidents or injuries to vulnerable pedestrians who have no choice to go to unique medical services not available elsewhere”
- “I like to emphasize this again, City should reroute the bike lane from West 10th as [the cyclists] are able-bodied; moving them around will be the best solution and less costly”
- “I’m disappointed that no consideration [has been given] to relocating the bike lane or getting them to dismount”

Signage should be responsive to Health Precinct users

- Signage should be universally designed and tested with wheelchair users, people with visual impairments, seniors, ESL, those with cognitive impairments, etc. to see if it will work
- Signs need to be consistent throughout the corridor
- “Wayfinding consultant either needs to be aware of visual impairments or bring Persons With Disabilities Advisory Council on board.”
- “The CSA is currently developing national standards for healthcare facilities signage and wayfinding. It will be important to take these into consideration”
- Remember that skateboarders may need their own targeted messaging

Cross-institution collaboration needed

- “The various health serving organizations in the Health Precinct are not working together to facilitate wayfinding”
- Need to clarify who is responsible for the wayfinding signs

RESEARCH AND USAGE DATA

What Participants Like

Living Lab research to understand design impacts

- “Living Lab monitoring usage in various ways is an excellent idea”
- “Collaborating with UBC researchers is a great idea”
- “Willingness to study impacts of major usage changes on 10th”

Participant Concerns and Suggestions

Request for City commitment to respond to results of research

- “Need City commitment to act and respond to what the data shows, a mechanism for responding to the collected data”

ACCESS TO THE HEALTH PRECINCT BY PUBLIC TRANSIT

What Participants Like

Benches to support pedestrian travel on sloped streets

- New, sheltered seating to be available on side streets for those needing to access facilities on 10th from transit on Broadway

Recognizing how street slope impact pedestrians with disabilities

- Recognizing sloped streets

Moving bus stop on Oak closer to 10th

- “Permanent 10th and Oak bus stop for number 17”

Participant Concerns and Suggestions

More bus stops accessible to Hospital Precinct

- “Add new bus stops”
- “Difficult to access VGH from Broadway due to the steep incline. Perhaps a new transit route along 12th would help with access to VGH by transit”

Offer a shuttle to improve transit access to the Health Precinct

- “Hills make manual wheelchairs and pedestrians in poor health struggle to get access from Broadway. Shuttle or sponsored service would be helpful”

- “TransLink shuttle from parking and Transit stops on Broadway and SkyTrain at Cambie until adequate parking and pick up drop off zones are in place on 10th”

Orient benches for passenger safety and convenience

- “Make sure that they are close to the buildings that they serve so the drivers know where to find the person and that the people are not in harm's way of other vehicle traffic”

APPENDIX — MEETING EVALUATION

This is a sample of participants' feedback about the workshop.

1. Is there anything you'd like to tell us about the 10th Avenue Corridor Health Precinct that you didn't have a chance to say at the workshop?

- "I think the safety and convenience of the most vulnerable people in our community are being sacrificed to accommodate cyclists"
- "Would like to see this bikeway detoured around 10th Ave to not risk the safety of all citizens"
- "I'm concerned about the 10th Ave corridor changes proceeding while hospital parking and drop off at BSCC hasn't been agreed on"
- "With all of the constraints applied to the biking route has anybody asked bikers if this is what they want? ... you would never be able to convince the bikers to slow down and single file in addition to the other constraints outlined in the proposal."

2. What worked well at the workshop?

- "Very much appreciate the open-minded approach of Dylan Passmore [Senior Transportation Engineer, COV] – thank you!"
- Well organized discussion and presentation around specific issues
- "Liked the worksheet as a way to capture more ideas"
- "You have shown how you are trying to reduce risk"

3. What could have been improved about the workshop?

- "Not enough room for talking about other options besides a bikeway on 10th"
- "The designs don't really deal with safety issues for persons with disabilities"
- Information from VCH and Translink outlining their plans to address the issues
- "Could a large map / diagram be posted for the precinct and changes for each meeting?"

4. Do you have any questions or suggestions?

- "Do not hold meetings in the early morning — that's the time for health care needs for persons with disabilities / elders"
- "Detour the bike path"
- "Thank you for having this to hear voices of the people"

Health Precinct Stakeholder Workshop Summary

Overview

As part of the 10th Ave Corridor Phase 2 consultation, staff organized a two-session workshop with key Health Precinct stakeholders and representatives from City's Advisory Committees. Held on February 25 and 29, 2016 at the Medical Students and Alumni Centre. The two 3-hr meetings brought together 36 participants from over 18 service providers, departments, and interest groups to discuss the design options under development for 10th Ave between Oak and Yukon Streets. The first session included a presentation by staff on the project background and a walking tour of 10th Ave between Cambie and Oak Streets to discuss the challenges and constraints found in the Health Precinct. The second day included a presentation on three design options under development and table discussions with all stakeholders on the proposed options and impacts for the western (Oak St to Willow St) and eastern (Willow St to Yukon St) halves of the precinct.

The key theme underlying the feedback to staff by participants was that "safety is paramount" for all users of 10th Ave while maintaining access to the hospital and health services in the precinct. A number of main themes and areas of concern were identified during the table discussion including the configuration of the loading and pick-up/drop-off areas, and measures to mitigate conflicts between people walking, cycling, and driving. In general, participants preferred the uni-directional option in addressing many of the challenges, constraints, and concerns raised through the discussions.

Highlights of Participant Feedback

Uni-directional Option:

- Identified as preferred design out of the three options discussed.
- Expressed the feeling that the direction and location of people cycling would be more predictable/intuitive in the uni-directional design than with the bi-directional options.
- Simplified the conflicts between people walking, cycling, and driving while traveling through intersections.
- Reduced by half the volumes of cyclists that would pass by the curbside passenger zones compared to the north side bi-directional option.

Bi-directional (on north side) Option:

- Identified as least preferred design by people with disabilities
- Introduced the greatest number of conflicts between people using the passenger zones/commercial loading area and people biking, including those biking at a higher speed downhill
- Enabled easier motor vehicle access to driveways/loading bays on the south side of 10th Ave
- Introduced more challenges with turning conflicts between people cycling and driving through intersections and across driveways than with the uni-directional design (Laurel St, Willow St, Heather St, and Ash St)

Bi-directional (on south side) Option:

- Created more conflict points with people walking on the south sidewalks
- Increased conflict with access to hospital emergency entrance than with the uni-directional design

- Introduced more challenges with increased turning conflicts between people cycling and driving through intersections and across driveways than with the uni-directional design (Laurel St, ER driveways, Heather St, BCCA driveways, and Ash St)

Loading, Pick-up and Drop-off Locations:

- Improve the passenger zones/loading areas on 10th Ave to have limited curbs or grade changes
- Incorporate large enough staging areas for passenger vehicles and Handy DART side-loading
- Ensure further consideration at high-conflict areas where people are being unloaded in close proximity to bike lanes
- Recommend increase in number and type of passenger zones (e.g., at Blusson, and Centre for Hip Health and Mobility; and add handicapped spots at Vancity)
- Ensure the distance between passenger zones and building entrances is as short as possible

Crossings and Intersections:

- Incorporate consistent crossings (e.g., zebra markings through all legal crosswalks) with pedestrian refuge areas along 10th Ave from Oak St to Cambie St
- Concern about the legibility of the configuration where the one-way and two-way vehicle travel changes meet (signage and pavement markings will have to be clear)
- Consider adding protected left-turn phase from Cambie St onto 10th Ave

Vehicle Circulation:

- Preference for two-way vehicle access as from Oak St and to Willow St in all design options
 - Provides more egress options from VGH ER for ambulance (often dispatching out of ER)
 - Expands egress options for local service and delivery routes within the precinct and between the different health services centres
 - Concern over increased congestion on south leg of Laurel St (between 10th and 12th Avenues) if two-way configuration does not extend as far west as Oak St

Parking:

- Improve wayfinding in the precinct to help drivers find available parking spots and lots
- Need to consider the impacts relocating the accessible parking spaces adjacent to ICORD/Blusson Centre
- Considers maintaining some on-street metered short-term parking (between Cambie and Ash Streets) but not at the expense of tree-removal

Additional Points

- Considers that the region's aging population is forecasted to increase and with that an increase in the number of pedestrians accessing the health service providers in the VGH precinct who will have mobility challenges
- Identified that wayfinding is paramount as those coming from outside of Vancouver, who may be under stress and not familiar walking and driving in the precinct
- Address the speed of people cycling along 10th Ave
- Consider tree replacements and lumber reuse through artwork in the precinct to compensate for any tree removal.
- A closure of a portion of Heather Street on the north side of 10th Ave is preferred vs. closing a portion on the south side.

Workshop Participants

Stakeholders (attended one or both meetings)

Adam Stenhouse	Canadian Cancer Society
Anne Walis	Centre for Hip Health and Mobility
Arlene Vanderhoeven	Eye Care Centre
Arthur Orsini	VGH - Commuter Centre
Bruce Gilmour	Canadian Barrier Free Design Inc.
Chris Marek	VCH - Mary Pack Arthritis Centre
Deming Smith	VCH/VGH
Immanuel Starchild	Vancity Savings Credit Union
Jeff Leigh	HUB Cycling
Keith Sigurdson	MTV Canadian Bus Inc. / HandyDart
Laura Mackenrot	Persons with Disabilities Advisory Committee
Liina Marshall	Coast Mountain Bus Company
Representative	Vancouver Fire Department
Sharon Petty	Fraser Health
Tanya Paz	Active Transportation Policy Council
Tom Stodola	BC Cancer Research Centre
Westley Davidson	VGH - Capital Projects
Claire Gram	VCH - Health Protection
Jeremy Trigg	VanCity Savings Credit Union
Lowell Mcphail	ICord
Mary Neiforth	VCH - Blusson
Raymond Penner	Facilitator

Stakeholders (invited but not able to attend)

Lisa Westermarck	Arthritis Society
Salesh Pillai	BC Cancer Agency
Brad McCannell	Canadian Barrier Free Design Inc.
Don McPherson	BC Ambulance Services
Chief Mark Engler	Vancouver Fire Department
Representative	Seniors Advisory Committee
Representative	Womens Advisory Committee

City of Vancouver Staff (attended one or both meetings)

Dylan Passmore	ENG - Transportation Design
Lynn Guilbault	ENG - Transportation Planning
Christine Edward	ENG - Transportation Planning
Paul Kruger	ENG - Transportation Planning
Bianca Popescu	ENG - Active transportation
Dale Bracewell	ENG - Transportation Planning
Paul Lightfoot	ENG - Transportation Design
Paul Storer	ENG - Transportation Design
Darren Proulx	ENG - Active Transportation
Mathew Slazyk	ENG - PMO
Rod Preston	ENG - Transportation Planning
Karis Hebert	PLN - Planning - Midtown
Mandy So	PLN - Development Services
Sailen Black	PLN - Urban Design and Development Services
Cabot Lyford	Parks Board

Advisory Council and Committee Motions

1. Persons with Disabilities Advisory Committee

EXCERPT MINUTES - MARCH 31, 2016:

WHEREAS:

1. The Transportation Plan 2040 includes a bicycle lane along the corridor of 10th Ave from Cambie to Oak;
2. The Transportation Plan places the highest priority on pedestrians - the hierarchy of priorities is pedestrians, bicycles, transit, shared vehicles and cars;
3. The Transportation Plan indicates that "The hierarchy is intended to help ensure that the needs and safety of each group are sequentially considered when decisions are made" (p16);
4. The Transportation Plan prioritizes accessibility for all ages and abilities: "The City's streets and public spaces should be usable by everyone, including seniors, families with young children, and those with mobility, vision, hearing and cognitive impairments." (p 21), and "Enable people of all ages and abilities to get to where they need to go, comfortably and safely." (p 9);
5. Safety is an important priority in the Transportation Plan 2040;
6. The highest priority is safety of vulnerable people: "A special emphasis will be placed on safety for at-risk groups (for example, children, seniors, and those with mobility challenges)" (p13);
7. Design for bicycle lanes must respect the safety of pedestrians, especially vulnerable pedestrians;

AND WHEREAS:

8. The proposed bicycle lane runs right through a medical corridor;
9. This corridor includes a significant number of important and unique medical services including the Canadian Cancer Society, the Eye Care Centre, the BC Cancer Research Centre, the Arthritis Centre, the Blusson Spinal Cord Centre, the BC Cancer Agency, the Emergency Entrance of Vancouver General Hospital; the Centre for Hip Health Mobility and the Gordon and Leslie Diamond Health Centre (on Laurel Street);
10. Many of the persons using these services are ill, injured, elderly and/or disabled, must be picked-up/dropped off very close to their destination, and are pedestrians significantly vulnerable to injury from bicycles and cars;

AND WHEREAS:

11. The proposed bicycle path along this corridor would involve over 3,000 bicycle trips each day along this heavily used medical corridor;
12. The topography in the area makes it difficult to re-route the bicycle lane, and re-routing would not likely lead to bicyclists using an alternative route, therefore the plans must include both pedestrian and cyclist considerations;

AND WHEREAS:

13. Staff are preparing plans for this corridor and have requested input from the Persons with Disabilities Advisory Committee;
14. The current designs for this corridor do not provide safe pick-up and drop-off locations for persons with disabilities in sufficiently close proximity to the medical services on this corridor;
15. The current designs do not protect vulnerable pedestrians from the significant risk of injury posed by a busy bicycle path along this heavily used medical corridor.

THEREFORE BE IT RESOLVED that the Persons with Disabilities Advisory Committee asks that new designs be developed which provide safety for vulnerable pedestrians, and safe adequate drop-off and pick-up locations close to every medical service.

WE RECOMMEND more specifically that:

1. Drop-off/pick-up locations in this corridor be located next to each medical building in indented areas;
2. These pick-up and drop-off locations be directly connected by ramps to raised crosswalks that will slow bicycle and car traffic and protect vulnerable pedestrians;
3. Specific signage be developed to alert road users that this is a medical corridor with vulnerable pedestrians; and
4. Adequate lighting and signals be designed for the safety of vulnerable pedestrians.

EXCERPT MINUTES (SPECIAL MEETING) - DECEMBER 1, 2016:

WHEREAS:

- A. On March 31, 2016, the Persons with Disabilities Advisory Committee ("PDAC") adopted a motion addressing the proposed bike lane on West 10th Avenue (the "March Motion");

The March Motion included:

- i. That the [Transportation Plan 2040](#) mandates a hierarchy of priorities - pedestrians, bicycles, transit, and cars - and that "The hierarchy is intended to help ensure that the needs and safety of each group is sequentially considered when decisions are made" (p16); and that "A special emphasis will be placed on safety for at-risk groups (for example, children, seniors and those with mobility challenges)" (p13);
 - ii. That the medical corridor from Oak to Cambie includes a significant number of important and unique medical services including the Canadian Cancer Society, the Eye Care Centre, the Mary Pack Arthritis Centre, the Blusson Spinal Cord Centre, the BC Cancer Agency, the Centre for Hip Health and Mobility, the Gordon and Leslie Diamond Health Centre, and the Emergency Entrance to Vancouver General Hospital;
 - iii. That these unique medical services are not provided elsewhere, and are heavily used by vulnerable persons who are ill, injured, elderly and/or disabled;
 - iv. The proposed bicycle lane will involve over 3,000 bicycle trips each day, and current designs do not protect vulnerable pedestrians from the significant risk of injury posed by a busy bicycle path along this heavily used medical corridor;
- B. PDAC subsequently learned of plans to remove temporary parking adjacent to the Blusson Building, which will exacerbate the impact of the loss of parking on 10th Avenue and will deter people with disabilities from accessing the medical and community services that are provided in the Blusson Building;
- C. This is in addition to the removal of 82 on-street parking spaces, which will force people with disabilities to travel longer distances to access the medical services that are provided in the medical corridor. Since many persons with disabilities are unable to travel more than a minimal distance on foot, or using wheelchairs, walkers or canes, the removal of adjacent on street parking will significantly affect their ability to access needed medical services;
- D. PDAC is also concerned about the proposed addition of 51 new trees in this corridor. The space used for planting trees could be used to increase accessible parking. Similarly, the removal of more existing trees could allow for the creation of additional accessible parking spaces which are so necessary in this corridor;

- E. The proposed staging areas permitting drivers to wait up to 30 minutes do not assist persons with disabilities, because it is unreasonable to expect that medical appointments will start on time and be completed within 30 minutes;
- F. PDAC has reviewed the final designs being proposed by City staff for the 10th Avenue bike lane and notes that:
 - i. Several intersections will not have traffic signals or all-way stop signs;
 - ii. The bicycle lane is raised to the same level as the pedestrian crossings, so there is no speed bump protection for vulnerable pedestrians to cross the bicycle lane safely;
 - iii. The proposed surface parking lot, which is intended to replace the street parking, has not been confirmed and, if built, may not be “accessible parking” because the lot is on a grade and too far from some medical facilities to be used by many people with disabilities; and
- G. PDAC continues to have concerns about safety for vulnerable pedestrians and the impact of the removal of parking spaces.

THEREFORE BE IT RESOLVED THAT, further to the March Motion, the Persons with Disabilities Advisory Committee urges Council to delay approving the bike lane until the Committee’s and the public’s concerns related to safety and parking are addressed.

BE IT FURTHER RESOLVED THAT the Persons with Disabilities Advisory Committee recommends specifically:

- 1. The designs incorporate speed bumps for bicycles and traffic controls at the Willow and Laurel intersections;
- 2. Construction on the bike lane not proceed unless and until sufficient new parking spaces that provide real accessibility to all facilities are created to replace the lost street parking;
- 3. The accessible parking adjacent to the Blusson Building be retained until an alternative that is acceptable to users of the building is constructed; and
- 4. The City and Vancouver General Hospital conclude negotiations to resolve all issues related to the bike lanes in the 10th Avenue Medical corridor, including the critical shortage of parking spaces for the medical corridor, and that these negotiations always include at least two members of the Persons with Disabilities Advisory Committee.

2. Seniors' Advisory Committee

EXCERPT MINUTES - MAY 20, 2016:

WHEREAS

1. In 2013, Council ratified the City's plan to seek formal recognition from the World Health Organization as a "Global Age-Friendly City;"
2. In 2014, the Province of British Columbia officially designated Vancouver as an "Age-Friendly Community;"
3. Both of these actions have committed the City to follow an "Age-Friendly Action Plan" which refers to "making streets and sidewalks more accessible and reviewing accessibility in areas where seniors live or gather;"
4. The Transportation 2040 Plan prioritizes the needs of pedestrians above all others and further states that "a special emphasis will be placed on safety for at-risk groups to get to where they need to go comfortably and safely";
5. Seniors require safe and efficient access to West 10th Avenue so they may attend the numerous medical facilities in the area, including the emergency department at Vancouver General Hospital; the BC Cancer Research Centre; the Eye Care Centre; the Arthritis Centre; the Blusson Spinal Cord Centre; the Centre for Hip Health and Mobility; and the Gordon and Leslie Diamond Health Centre;
6. The addition of a dedicated bicycle route would increase traffic along this route and therefore increase the risk for collisions with pedestrians, especially those who are disoriented or mobility-impaired;
7. The addition of the bicycle route would also leave inadequate space for taxis, HandyDart, private cars, or emergency vehicles (especially in cases of vehicle breakdown or catastrophic events);
8. The current plans do not provide safe, dedicated pick-up and drop-off locations for seniors accessing medical facilities;
9. The proposed removal of up to 77 parking spaces would require seniors and/or their caregivers to park and walk a much greater distance to and from medical facilities;
10. The current designs do not provide for sufficient lighting or other features that improve safety and comfort for vulnerable seniors;

THEREFORE BE IT RESOLVED THAT the Seniors Advisory Committee request Council direct staff to:

1. Investigate more suitable options for the proposed protected bicycle lane, which may include relocating it to the designated bicycle path on West 7th Avenue between Oak and Ash Streets;
2. Ensure sufficient sheltered drop-off/pick-up locations in front of entrances to each medical facility along West 10th Avenue, directly connected by gentle ramps and raised crosswalks to slow traffic;
3. Ensure clear signage to caution motorists about vulnerable pedestrians and to give priority to emergency vehicles;
4. Ensure adequate lighting, crossing signals, and benches for the safety and comfort of vulnerable pedestrians.

3. Active Transportation Policy Council

EXCERPT MINUTES - FEBRUARY 1, 2017:

WHEREAS

1. Transportation 2040 is a comprehensive framework for a progressive, green transportation strategy that includes a plan to upgrade the 10th Avenue Corridor to be safer for people of all ages and abilities and all modes of active transportation;
2. In the City of Vancouver's 2015 Cycling Safety Study, 10th Avenue is cited several times as a hot zone for bicycling injuries;
3. The majority of injuries to pedestrians and cyclists are as a result of collision with a motor vehicle, are preventable, and can be avoided through engineered improvements to roadways and the development of active transportation infrastructure;
4. The City of Vancouver has undertaken considerable consultations with the public and stakeholder groups and incorporated many of the suggestions in the proposed designs;
5. The proposed designs include engineered treatments which have been documented to be highly effective at improving pedestrian and cycling safety, (See the City of Vancouver Pedestrian Safety Study, Table ES.1, page E.10) including: additional lighting to improve visibility, separated unidirectional bike lanes, traffic calming measures such as raised intersections, an additional pedestrian signal (at Ash St), improved way finding, and Hospital Zone messaging;
6. The City of Vancouver has committed to a living lab along the 10th Avenue Corridor to monitor the effectiveness of the proposed improvements and strive for the safety of all modes of active transportation;
7. The City of Vancouver's designs are likely to ensure enhanced safe and convenient access to health services by all modes of active transportation, and those accessing services by HandyDART, by adding sheltered, well-lit waiting areas, repurposing 14 street parking spots to accommodate drop off/pick up and HandyDART loading and unloading space, providing separated lanes for people travelling by bike, and traffic calming for all;
8. The City of Vancouver's designs are likely to ensure continued safe and convenient access for emergency vehicles by studying the ambulance traffic patterns in the area, engineering the south side bike lane to be large enough to accommodate emergency vehicles if required, and only raising east side of the (northbound) Laurel Street and West 10th Avenue intersection to ensure smooth travel.

THEREFORE BE IT RESOLVED THAT the Active Transportation Policy Council recommends that City Council proceed with the improvements to the 10th Avenue Project as proposed by City staff in Phase 3 public engagement.

CARRIED UNANIMOUSLY

Staff Response to Advisory Council and Committee Motions

To view the full motions see APPENDIX F.

1. Persons with Disabilities Advisory Committee

MARCH 31, 2016: STAFF RESPONSE

Recommendation	Staff Response
1. Drop-off/pick-up locations in this corridor be located next to each medical building in indented areas	The Skin Care Centre and BC Cancer Agency have existing on-site pick-up/drop-off locations. The recommended design maintains and lengthens the existing on-street passenger zones at Eye Care and Arthritis Centre. Additional passenger loading and priority vehicle staging area are recommended on Laurel St and Willow St adjacent to Eye Care and Arthritis Centre. Staff have also been coordinating with VCH executives to designate on-site passenger loading space on the east side of the Blusson building.
2. These pick-up and drop-off locations be directly connected by ramps to raised crosswalks that will slow bicycle and car traffic and protect vulnerable pedestrians	The recommended design includes passenger loading zones where the vehicle space is raised to the same level as the sidewalk, providing level crossings to the sidewalk across the bike lane. A raised crosswalks across 10 th Ave is proposed for the east side of Laurel St in front of the Mary Pack Arthritis Centre. The Willow St and Heather St intersections are proposed to be raised to sidewalk level. People biking past the Eye Care Centre and Mary Pack Arthritis Centre passenger zones are generally moving slowly (given it is the uphill direction) but additional measures will emphasize that people biking are expected to yield to crossing pedestrians. These measures include narrowing the bikeway to single file, strong yield signage and paint, bending the bikeway, and a speed “dip” in the bikeway.
3. Specific signage be developed to alert road users that this is a medical corridor with vulnerable pedestrians	Staff have hired consultants to engage Health Precinct stakeholders and City advisory committees to develop “Hospital Zone” signage and pavement markings as well as improved wayfinding. The intent of the signage is to clearly delineate all gateways into the Health Precinct from the surrounding arterial roads with clear and consistent messaging to all road users that will better convey that people entering the area are in a “hospital campus” where there are vulnerable people crossing the street.

4. Adequate lighting and signals be designed for the safety of vulnerable pedestrians	Staff are recommending street lighting upgrades on 10 th Ave in the Health Precinct, which includes completing the pedestrian-scale lighting on the south side of the street. Staff also recommend a new accessible traffic signal at Ash St and 10 th Ave, as well as upgrading the traffic signal at Oak St such that people walking or biking east-west have a protected signal phase separate from the vehicle signal phase.
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(SPECIAL MEETING) - December 1, 2016: STAFF RESPONSE

Comment	Staff Response
<ul style="list-style-type: none"> This is in addition to the removal of 82 on-street parking spaces, which will force people with disabilities to travel longer distances to access the medical services that are provided in the medical corridor. Since many persons with disabilities are unable to travel more than a minimal distance on foot, or using wheelchairs, walkers or canes, the removal of adjacent on street parking will significantly affect their ability to access needed medical services; 	<p>The updated recommended design incorporates metered disability parking spaces on 10th Ave to compensate for the removal of general on-street metered parking and provide convenient parking for those with accessibility needs.</p>
<ul style="list-style-type: none"> PDAC is also concerned about the proposed addition of 51 new trees in this corridor. The space used for planting trees could be used to increase accessible parking. Similarly, the removal of more existing trees could allow for the creation of additional accessible parking spaces which are so necessary in this corridor; 	<p>As noted above, the updated recommended design incorporates metered disability parking spaces on 10th Ave. The width of existing tree boulevards or the proposed new boulevard space where most of the new trees would be planted is insufficient to accommodate accessible parking spaces as well as a "door zone" to ensure the safety of people biking.</p> <p>Tree planting is an important component of all street improvement projects and new trees would be selected and planted based on current best practices to help avoid the street maintenance problems created by the area's existing trees. These new trees will help to support the City's Greenest City Strategy tree canopy and tree planting targets and the City's Urban Forest Strategy goals to protect, grow, and maintain a healthy and resilient urban forest for future generations.</p>

Comment	Staff Response
<ul style="list-style-type: none"> The proposed staging areas permitting drivers to wait up to 30 minutes do not assist persons with disabilities, because it is unreasonable to expect that medical appointments will start on time and be completed within 30 minutes; 	<p>The proposed priority vehicle staging areas are intended to provide additional space for SPARC permit holders, HandyDART, and Hospital Transfer vehicles to wait outside of the priority passenger loading areas. Parking for persons with disabilities close to their destinations is accommodated either on-site or in the proposed disability parking spaces.</p>
<ul style="list-style-type: none"> PDAC has reviewed the final designs being proposed by City staff for the 10th Avenue bike lane and notes that: <ul style="list-style-type: none"> i. Several intersections will not have traffic signals or all-way stop signs; ii. The bicycle lane is raised to the same level as the pedestrian crossings, so there is no speed bump protection for vulnerable pedestrians to cross the bicycle lane safely; iii. The proposed surface parking lot, which is intended to replace the street parking, has not been confirmed and, if built, may not be “accessible parking” because the lot is on a grade and too far from some medical facilities to be used by many people with disabilities; 	<p>The recommended design includes a new accessible traffic signal at Ash St and upgraded signal at Oak St to will provide clarity and increase safety for people walking and cycling through the intersections. Furthermore, the recommended design includes raised crossings and raised intersections to help slow motor vehicle traffic. The “Hospital Zone” messaging and signage will provide cues around vulnerable patients and priority of people crossing the street.</p> <p>Staff are in the process of coordinating with BCCA/PHSA with the aim of ensuring there are spaces on the new surface parking lot with an accessible connection to 10th Ave.</p>

Recommendation	Staff Response
<p>1. The designs incorporate speed bumps for bicycles and traffic controls at the Willow and Laurel intersections</p>	<p>The recommended design includes a raised crossing at the Laurel intersection and raising the entire Willow St and Heather St intersections to help slow down vehicles at these locations Based on an analysis of historic ICBC collision data from 2009 - 2015, 69 vehicle collisions reported on 10th Ave in the health precinct that involved people walking or cycling.</p> <p>With respect to people biking, staff are in the process of evaluating the efficacy of several pilot treatments aimed at encouraging respectful behaviour at pedestrians crossings over protected bike lanes. Speed humps (or dips) in the bikeway are among the treatments being considered, as well as:</p> <ul style="list-style-type: none"> • Narrowing the bikeway • Painted yield signs/"shark's teeth" • Short eye-level yield signs • Rumble strips <p>The results of this study will help to inform the final proposed treatment for pedestrian crossings and this will be one of the aspects of the 10th Ave project that will be monitored closely following implementation.</p>
<p>2. Construction on the bike lane not proceed unless and until sufficient new parking spaces that provide real accessibility to all facilities are created to replace the lost street parking</p>	<p>City staff have been working with Health Precinct partners (VCH/BCCA/PHSA) to identify all available options to secure additional disability parking spaces on 10th Ave to compensate for the removal of general on-street metered parking and provide for those with accessibility needs.</p> <p>Furthermore, staff are working with PHSA to help expedite their outstanding obligation to install a surface parking lot at the northwest corner of 10th Ave and Ash St with at least 116 parking spaces in such a way that provides an accessible route to 10th Ave. Overall, this will result in a net increase in parking supply within the Health Precinct.</p>
<p>3. The accessible parking adjacent to the Blusson Building be retained until an alternative that is acceptable to users of the building is constructed</p>	<p>Staff are supporting a VCH request to retain several of these stalls, while eliminating vehicle access from 10th Ave. This requires a minor amendment to the development permit for the Segal building, which is in progress.</p>

Recommendation	Staff Response
4. The City and Vancouver General Hospital conclude negotiations to resolve all issues related to the bike lanes in the 10 th Avenue Medical corridor, including the critical shortage of parking spaces for the medical corridor, and that these negotiations always include at least two members of the Persons with Disabilities Advisory Committee.	The City and Health Precinct partners established a joint agreement to work through a collaborative process to identify a shared resolution for the improvements to 10 th Ave in the Health Precinct. The process has identified additional refinements to the Phase 3 recommended design presented to the public in November 2016. A summary of the collaborative process is provided in Appendix C .

2. Seniors' Advisory Committee

MAY 20, 2016: STAFF RESPONSE

Comment	Staff Response
<ul style="list-style-type: none"> The addition of a dedicated bicycle route would increase traffic along this route and therefore increase the risk for collisions with pedestrians, especially those who are disoriented or mobility-impaired; 	<p>Overall, the number of people using bikes as a preferred method of travel has increased around the entire city. The 10th Ave bike route has been in place since 2004 and there will always be high volumes of people biking on 10th Ave because it provides a direct, continuous, and relatively flat connection to many destinations across much of the city and through Central Broadway, BC's highest employment centre outside the downtown core. Furthermore, many people who cycle on 10th Ave work in the Health Precinct or are visiting nearby destinations.</p> <p>Staff are proposing to advance improvements to alternate routes (14th and 7th Ave) to attract people to use those routes rather than 10th Ave.</p> <p>Staff feel that the recommended design will significantly improve the predictability and awareness of all road users over existing conditions. Statistically, the greatest risk to pedestrians is from a collision with motor vehicles. Based on an analysis of historic ICBC collision data from 2009 - 2015, 69 vehicle collisions reported on 10th Ave in the health precinct that involved people walking or cycling.</p>

Comment	Staff Response
<ul style="list-style-type: none"> The addition of the bicycle route would also leave inadequate space for taxis, HandyDart, private cars, or emergency vehicles (especially in cases of vehicle breakdown or catastrophic events); The current plans do not provide safe, dedicated pick-up and drop-off locations for seniors accessing medical facilities; 	<p>The Skin Care Centre, Blusson, and BC Cancer Agency have on-site pick-up/drop-off locations.</p> <p>The recommended design maintains and lengthens the existing on-street passenger loading zones at the Eye Care and Mary Pack Arthritis Centres. Additional passenger loading and priority vehicle staging areas are recommended on Laurel St and Willow St adjacent to the Eye Care and Mary Pack Arthritis Centres. Furthermore, on-street disability metered parking has been incorporated into the 10th Avenue design to help serve the patients most in need of convenient parking close to health facilities.</p>
<ul style="list-style-type: none"> The proposed removal of up to 77 parking spaces would require seniors and/or their caregivers to park and walk a much greater distance to and from medical facilities; 	<p>The existing meter parking is often full, thus it is not effective at addressing the needs of priority patients. The new recommended design provides on-street metered disability parking on 10th Ave as well as more space and time for passenger loading. Seniors with mobility issues are encouraged to obtain SPARC parking permits to have access to these priority parking spaces.</p>
<ul style="list-style-type: none"> The current designs do not provide for sufficient lighting or other features that improve safety and comfort for vulnerable seniors; 	<p>Staff are recommending street lighting upgrades, which includes completing the VGH pedestrian-scale lighting on the south side of 10th Ave. The recommended design includes many other features that would benefit seniors walking in the Health Precinct, such as:</p> <ul style="list-style-type: none"> New level and wide sidewalks New benches Raised intersections and crossings Clearer pavement markings at all pedestrian crossings, including across the bikeway A new accessible traffic signal at Ash street New #17 bus stops at 10th Ave Protected signal phasing for crossing Oak St and no turn conflicts crossing at Cambie St <p>Furthermore, seniors biking in the area will benefit from a safe and comfortable all-ages-and-abilities bikeway design.</p>

Recommendation	Staff Response
<p>1. Investigate more suitable options for the proposed protected bicycle lane, which may include relocating it to the designated bicycle path on West 7th Avenue between Oak and Ash Streets</p>	<p>Transportation 2040 (T2040) identifies improving the 10th Ave bike route as a key project and it is highlighted on the plan's Cycling Route Priorities map. Rerouting the 10th Ave bike route is not a viable option, since:</p> <ul style="list-style-type: none"> • There will always be high volumes of people biking on 10th Ave because it provides a direct, continuous, and relatively flat connection to many destinations across much of the city and through Central Broadway, BC's highest employment centre outside the downtown core. Furthermore, many people who cycle on 10th Ave work in the Health Precinct or are visiting nearby destinations. • The City does not exclusively ban cycling from streets—a detour would be advisory and would require people biking on 10th Ave to climb a steep hill, cross a busy street twice (e.g. 12th Ave or Broadway), and travel out of their way. Many people biking through the area would likely choose not to use the detour. • Nearby parallel streets are either already too busy with no opportunity to add bike lanes (e.g. 12th Ave or Broadway) and/or too far from destinations (e.g. 7th or 13th Ave). <p>In response to feedback, staff recommendations include improving alternate bike routes to 10th Ave, including 14th Ave and a north-south bike route on Alder St, to allow people reasonable alternatives to more easily bypass the Health Precinct.</p>
<p>2. Ensure sufficient sheltered drop-off/pick-up locations in front of entrances to each medical facility along West 10th Avenue, directly connected by gentle ramps and raised crosswalks to slow traffic</p>	<p>The Skin Care Centre and BC Cancer Agency have on-site pick-up/drop-off driveways. Staff have also been coordinating with VCH executives to designate on-site passenger loading space on the east side of the Blusson building.</p> <p>The recommended design maintains and lengthens the existing on-street passenger loading zones at the Eye Care and Mary Pack Arthritis Centres, with the vehicle space raised to be flush with the sidewalk to avoid any need for ramps. At both locations, staff recommend including bus-style shelters with benches. As well, additional passenger and priority vehicle staging areas are recommended on Laurel St and Willow St adjacent to both centres.</p>

Recommendation	Staff Response
<p>3. Ensure clear signage to caution motorists about vulnerable pedestrians and to give priority to emergency vehicles</p>	<p>Staff have retained consultants to engage Health Precinct stakeholders and City advisory committees to develop “Hospital Zone” signage and pavement markings as well as improved wayfinding. The intent of the signage is to clearly delineate all gateways into the Health Precinct from the surrounding arterial roads with clear and consistent messaging to all road users that will better convey that people entering the area are in a “hospital campus” where there are vulnerable people crossing the street.</p> <p>Staff have continued to work with VFRS and BC EHS to ensure emergency personnel and vehicles are not negatively impacted by the recommended designs. Motor vehicle access to VGH ER remains as direct as it is today and the priority ambulance access routes do not have speed humps.</p>
<p>4. Ensure adequate lighting, crossing signals, and benches for the safety and comfort of vulnerable pedestrians</p>	<p>Staff are recommending street lighting upgrades, which includes completing the VGH pedestrian-scale lighting on the south side of 10th Ave. The recommended design includes new benches, a new accessible traffic signal at Ash street, protected signal phasing for crossing Oak St, and the elimination of turn conflicts crossing at Cambie St.</p>



10TH AVE CORRIDOR PHASE 1 FEEDBACK FORM RESULTS

December 2015



Between July and October, 2015, City staff conducted Phase 1 of the 10th Ave Corridor consultation, which was designed to help City staff improve their understanding of how 10th Ave is currently being used, the corridor's issues and opportunities, and the public's opinion on the trade-offs involved in supporting a comfortable, safe, and enjoyable walking and cycling experience. The following summarizes the public input received through the project's Phase 1 'feedback form', which was available through the City's 10th Ave Corridor webpage and in hard copy at the open house events. It was also distributed in an online format through Talk Vancouver. The feedback form's comment period was October 29 to November 15, 2015.

Travel Experience on 10th Ave

- When considering different types of travel experiences, respondents indicated that **walking was the most safe and enjoyable activity along 10th Ave**, with over 66% agreeing or strongly agreeing in general.
- With respect to cycling on 10th Ave, **"cycling with children" was viewed as the least safe and enjoyable activity (only 8% felt it was safe and enjoyable) and only 22% of respondents indicated they find cycling safe and enjoyable during rush hour.**
- Respondents also clearly indicated they **do not feel comfortable driving on 10th Ave**, especially when parking or during rush hour.

Support for Potential Improvements

Potential improvements to 10th Ave targeting safety were the most popular among respondents, with over two-thirds supporting the following potential improvements on 10th Ave:

- Improving visibility at problem locations, especially at intersections, by adding corner bulges and removing limited on-street parking or landscaping (76%).
- Prohibiting some turning movements or limiting some streets with lower motor vehicle volumes for use by only emergency services, people walking, and people cycling (67%).

Additionally, many supported other changes to improve the walking and cycling experience :

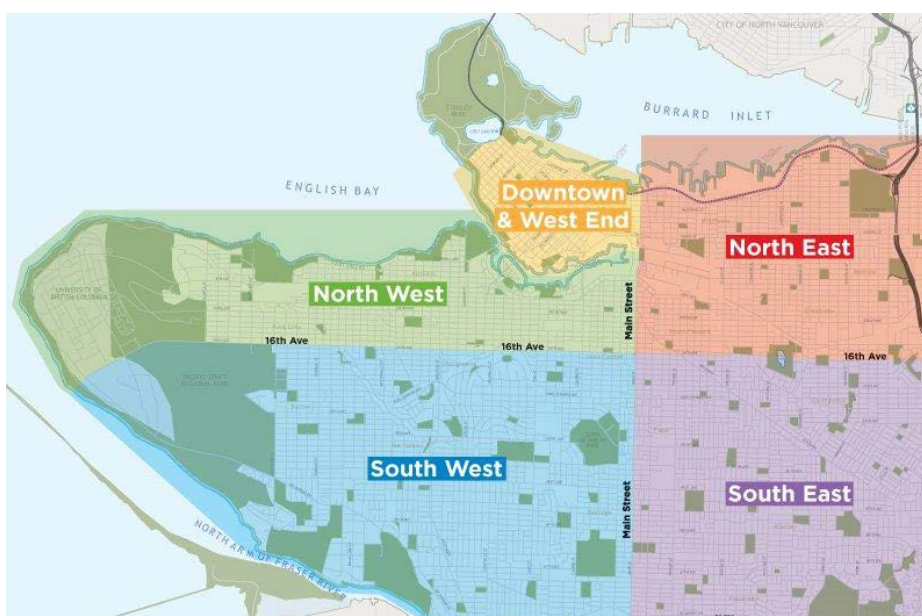
- Installing protected bike lanes where motor vehicle volumes are high by removing some on-street parking, or converting the street to one-way for motor vehicles (65% and 62%).
- Consolidating on-street parking to one side of the street or converting some blocks to one-way to provide enough space to more comfortably share the street (65% and 64%).
- Respondents preferred to remove on-street parking in place of trees in order to install protected bike lanes where motor vehicle volumes are high (65% vs. 35%).



Who did we hear from?



- 181 people attended the three public open houses in October and November 2015.
- 1,789 people completed the survey at the public open houses, online, and through Talk Vancouver.
- Survey respondents were connected to 10th Ave in a variety of ways. Over three quarters of respondents either own, rent or work in areas along 10th Avenue. Over half of the respondents also indicated that they commute along 10th Avenue.
- Respondents indicated they most commonly travel along 10th Ave by cycling (46%) and walking (40%). In contrast, approximately 20% of respondents indicated they drive alone, carpool, or take transit to 10th Ave frequently.
- We heard from similar numbers of women (49%) and men (47%), but most were adults and the project's target age groups (seniors and youth) were underrepresented with adults overrepresented.
- Most respondents do not have children under the age of 18 in their homes (77%).
- All areas of the city were represented, with the greatest proportions living in the Northwest (32%) and Northeast (25%).





DETAILED FEEDBACK FORM RESULTS

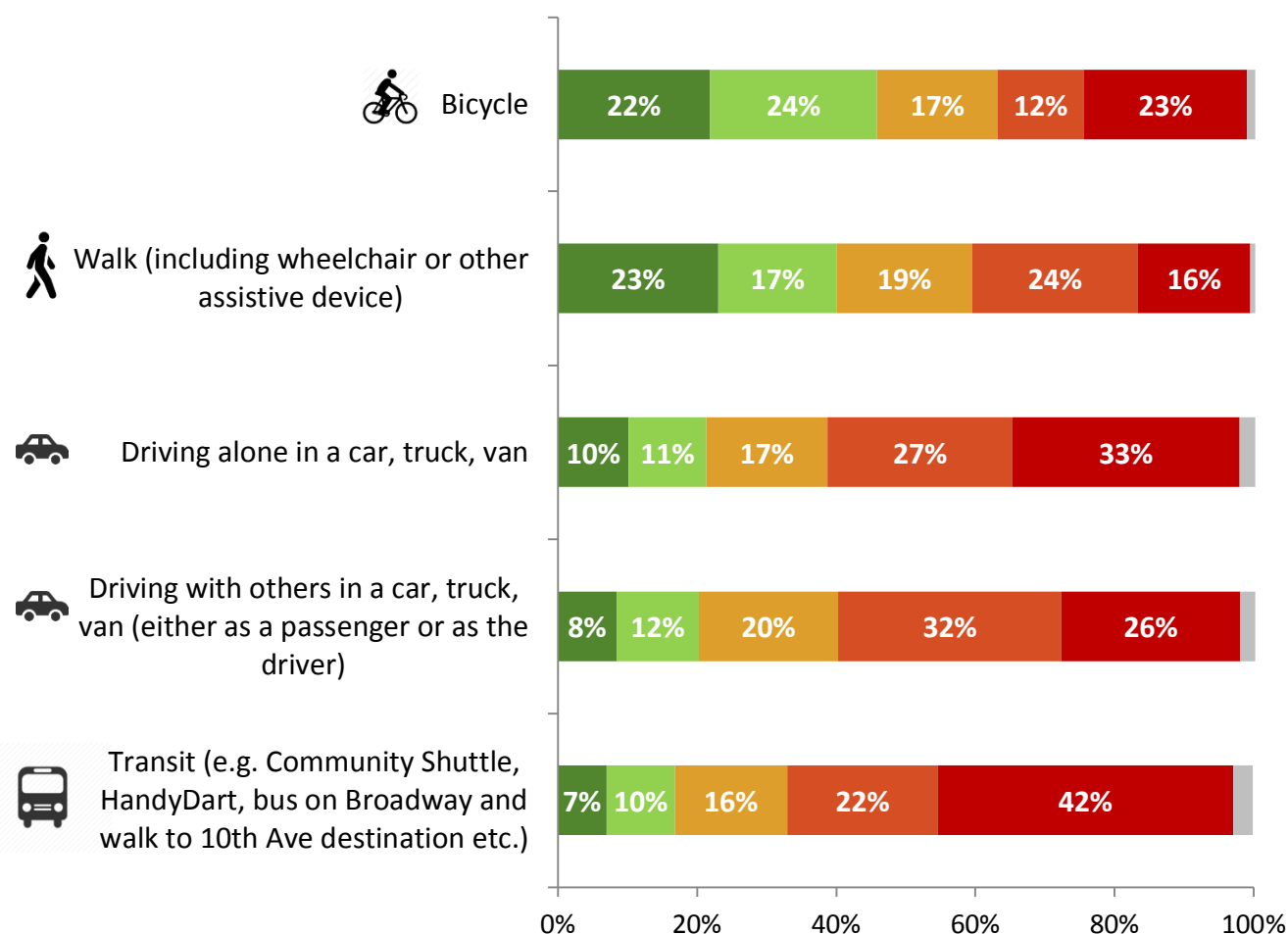


Modes of Travel and Frequency



- Respondents indicated they typically use a wide variety of modes of travel to get around the corridor.
- The most common reported modes of travel along 10th Ave were cycling and walking. Just over four in every 10 respondents cycled regularly on the corridor (46%), with similar numbers walking (40%) on the route.
- Transit was less popular, with 42% indicating that they “never” take transit along Broadway to access destinations on 10th Ave.

■ Frequently ■ Often ■ Sometimes ■ Rarely ■ Never ■ Did not answer



Base: All respondents (n =1789)

How do you usually travel on 10th Avenue?

Frequently (at least 4-5X per week), Often (at least once a week), Sometimes (at least once a month), Rarely (once every couple of months.), Never

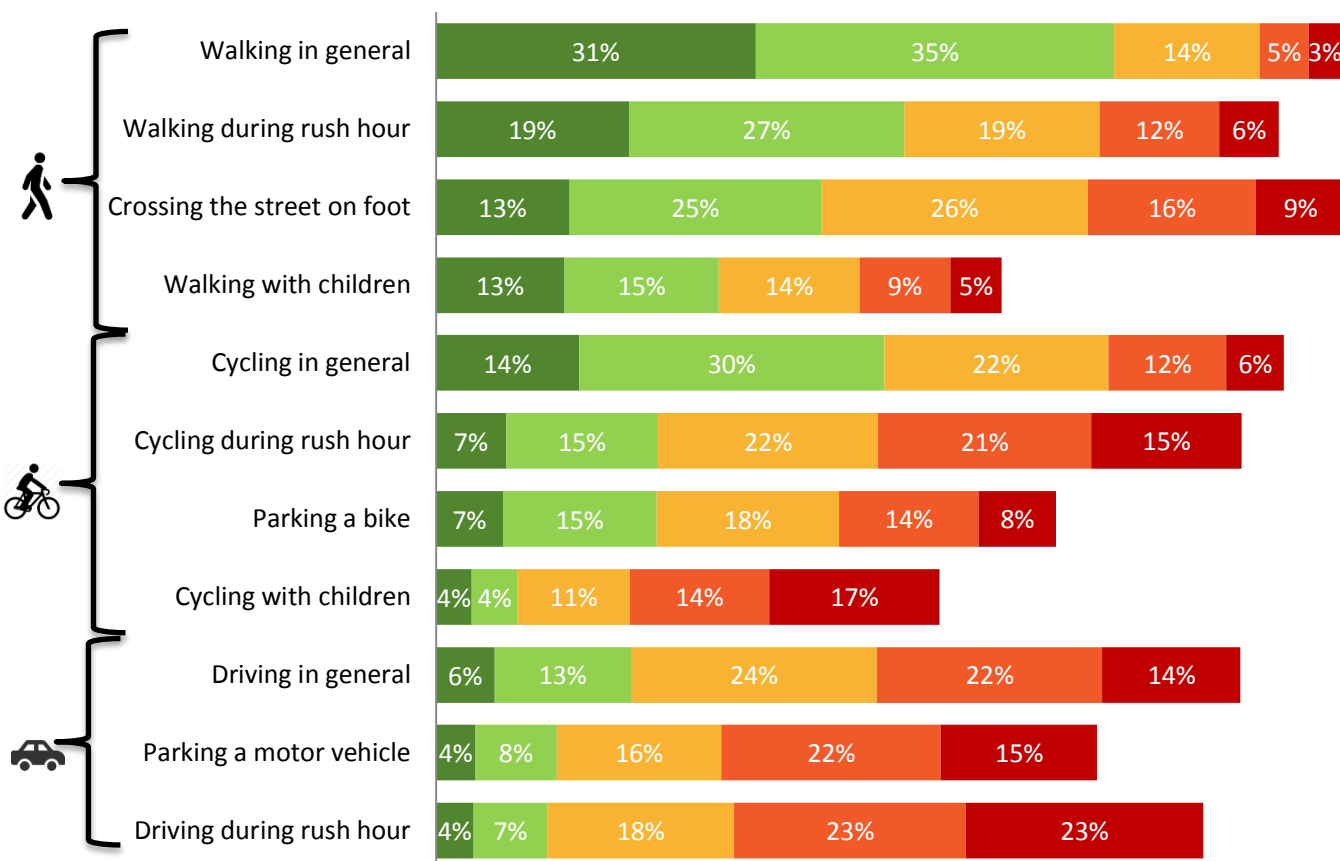


Enjoying Travel on 10th Ave



- When considering different types of travel experiences along 10th Ave, walking was found to be the most safe and enjoyable.
- For cycling, “Cycling in general” was the most enjoyed cycling activity (44%) while “cycling with children” was viewed as the least safe and enjoyable activity (8%).
- Driving and parking were not very popular along the 10th Ave Bike Route, with only between 11% to 19% agreeing they were safe and enjoyable.

■ 5 - Strongly agree ■ 4 - Somewhat agree ■ 3 - Neutral ■ 2 - Somewhat disagree ■ 1 - Strongly disagree



Base: All respondents (n =1789), with Did Not Know, Not Applicable and Did not Answer not displayed.

Do you agree with the following statements? 10th Avenue is a safe, enjoyable place for... (1-strongly disagree to 5 – strongly agree)



Issues and Opportunities for 10th Ave

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The following are some examples of respondents' comments about what they saw as the issues and opportunities most important for 10th Ave:

Connectivity: Extend or better connect the route past Trafalgar St to UBC!

Accessibility: It can be really hard to cross the street on foot, especially at 4-way stops with old curb ramps.

Safety: Fallen leaves on wet roads and sidewalks are really slippery. Improve paving and drainage!

Visibility: Better lighting, especially at intersections!

Greening: Add more trees please but note that tall plants in roundabouts and at street corners can make it hard to see at intersections.

Congestion: There's so much traffic, especially around the hospital.

Variability: 10th Ave varies so much depending on where you are along the corridor. The stretch between Cambie St and Oak St is where I feel least safe on a bike, walking and in a car.

Base: Respondents who provided an answer (n=1479)

When considering all of the ways that people travel – walking, cycling, transit and driving – what issues and opportunities do you feel are most important for the 10th Avenue Corridor?

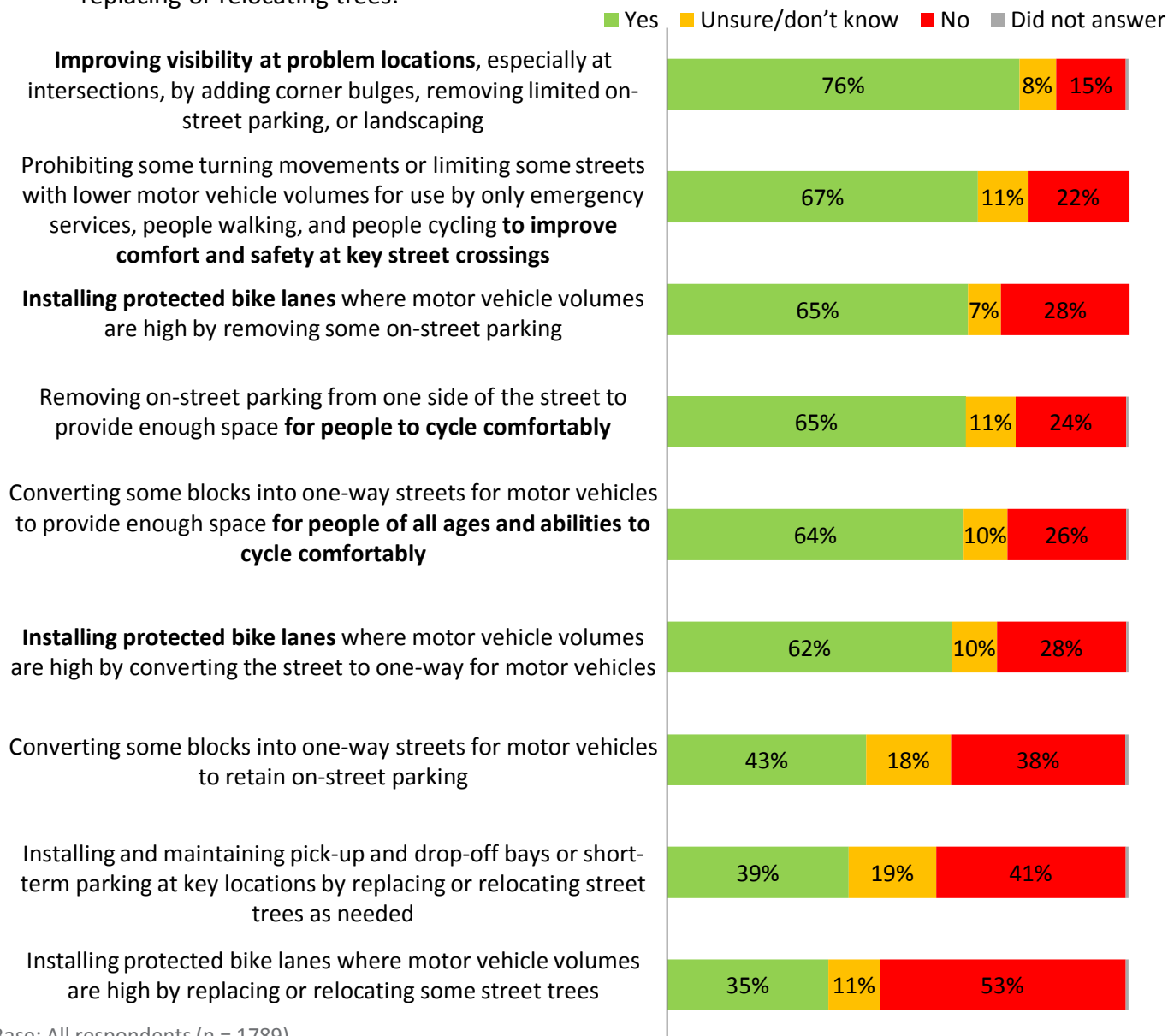


Support for Potential Key Improvements on 10th Ave

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- Potential improvements to 10th Ave targeting safety were the most popular among respondents.
- Improvements to enhance cycling were also popular, with over 60% of respondents supporting the prioritization of bike safety and comfort over convenient vehicle access on 10th Ave.
- Respondents had mixed opinions when trading off vehicle access or bike infrastructure against replacing or relocating trees.



Base: All respondents (n = 1789)

Our goal is to design walking and cycling routes that are comfortable, safe and enjoyable for people of all ages and abilities. Which of the following key improvements would you like us to consider in order to achieve this goal?



Comments on Specific Improvements



The following are some examples of respondents' comments about the specific improvements to 10th Ave being considered:

Traffic calming in East Vancouver generally works well. More instances of that to deter motor vehicles from using 10th Ave as a thoroughfare might be useful.

4-way stops are hard for everyone – please turn these into 2-way stops that gives the right of way to the bike route wherever possible

Better pedestrian access, such as better crosswalks or signals at 10th + Trutch or Victoria, would be really helpful.

It's so narrow around the hospital. Removing some parking could make it more comfortable for everyone – no matter now they get around.

Protected bike lanes around the hospital would be great!

One-way streets (like the one I live on) help dramatically in my experience as a cyclist and driver of the corridor. As a driver I can better focus on the road and cyclists, and as a rider I feel safer navigating with cars only going in one direction.

Base: Respondents who provided an answer (n=817)

Please provide any comments or example locations that are relevant to the improvements shown above.



Other Comments and Changes to Consider for 10th Ave



The following are some examples of respondents' comments about changes they would like considered for 10th Ave, reflecting the wide range of opinions on 10th Ave and the challenge before staff to balance priorities and improve conditions.

Remove all of the street parking!

There needs to be parking available in the area.

Maintaining safe pick up and drop off at key institutions like VGH and local schools is important.

Please keep the lovely, mature, healthy trees.

Invest in high profile public education programs, advertisements, and better signage to help improve safety and better connections.

Make 10th near the hospital for walking, cycling, emergency and transit only.

Base: Respondents who provided an answer (n=670)

Are there any other changes you would like us to explore?



Other Feedback



In addition to completing the questionnaire, public open house attendees provided feedback on maps and at facilitated conversation tables. The following are some examples of participants' recurring comments:

Please improve the intersection at 10th Ave and Prince Edward St.

Can you continue the route or improve the connections west of Trafalgar St to UBC?

Uneven paving west of Arbutus is really bumpy and uncomfortable

We (heart) the big trees, especially east of Yukon St!

Oak St to Cambie St is so busy. The 4-way stops are especially tricky for everyone.

Parallel parking on narrow sections of the street slows down traffic

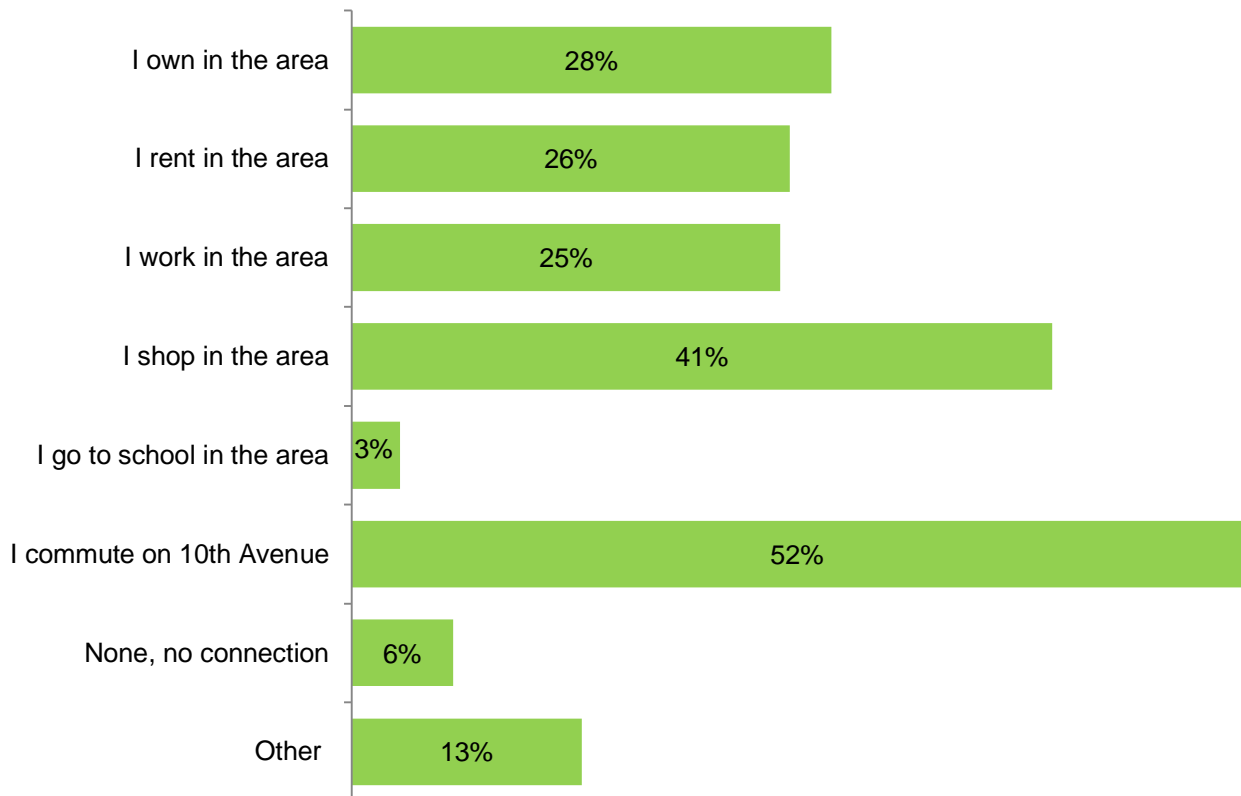
The traffic around school pick-up and drop-off times around 10th Ave + Yew St is crazy!



DEMOGRAPHICS



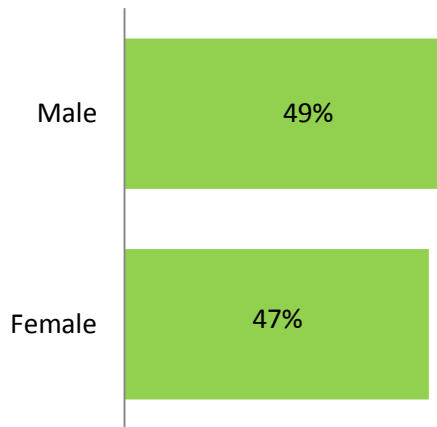
Connection to 10th Ave.





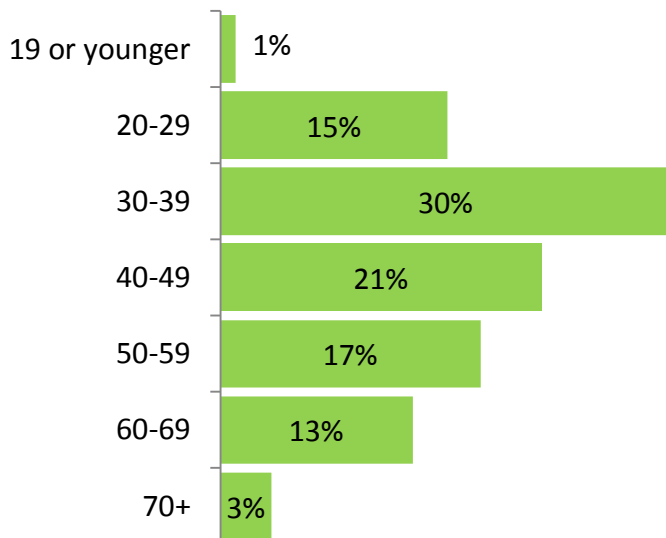
RESPONDENTS

Gender

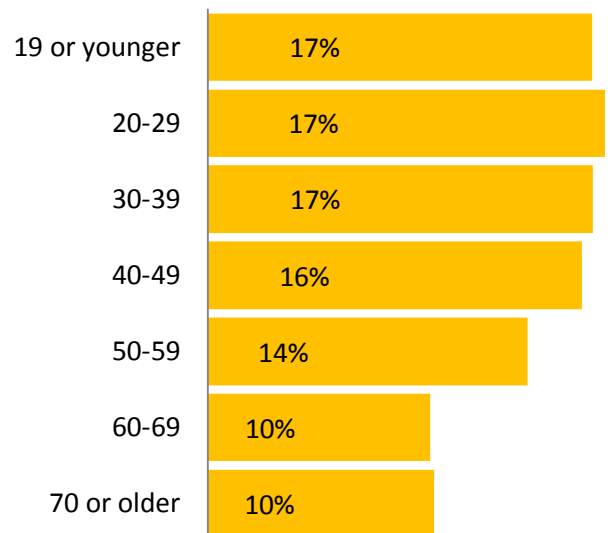


CITY OF VANCOUVER 2011 CENSUS

Age



Age

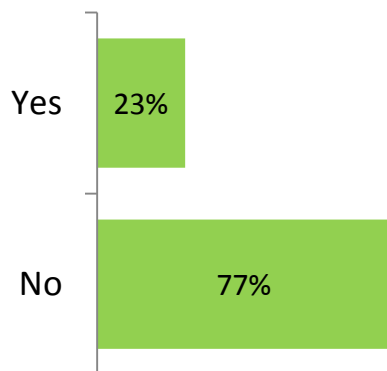


Base: All respondents (n=1789)



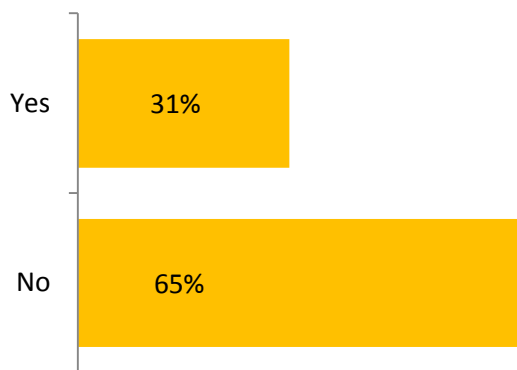
RESPONDENTS

Children in Household under 18 years



CITY OF VANCOUVER 2011 CENSUS

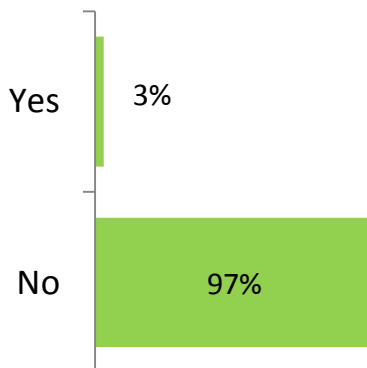
Children in Household under 24 years



RESPONDENTS

Use of mobility aid

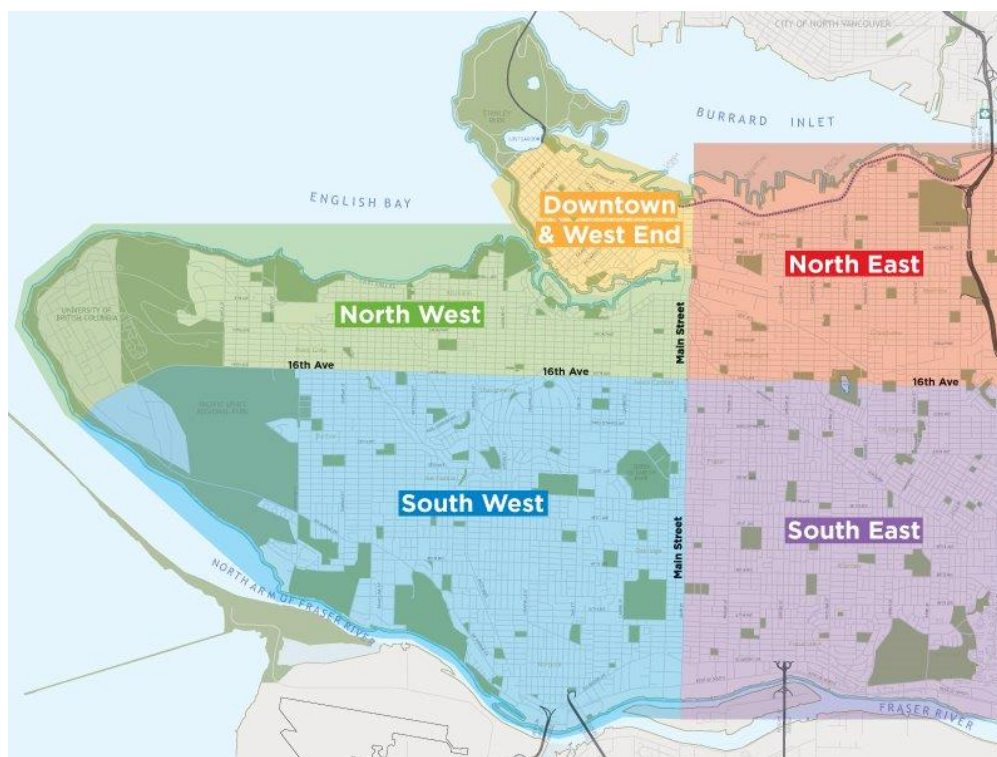
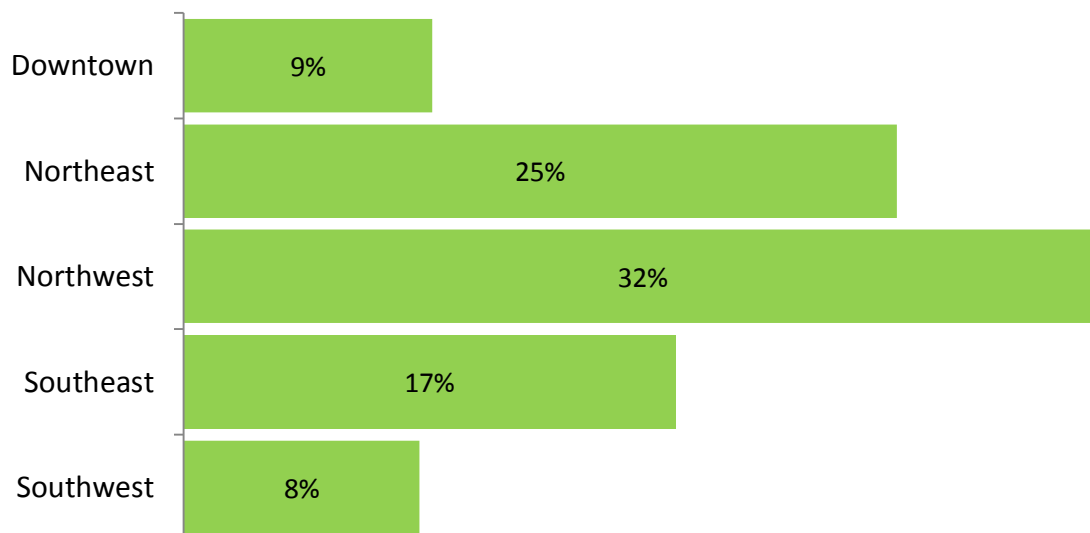
(i.e. wheelchair, scooter, walker, cane, other)



Base: All respondents (n=1789)



Residential Zone



Base: All respondents (n=1789)



PHASE 1 CONSULTATION FEEDBACK FORM



10th Avenue Corridor

We want to hear from you!

A top priority of the Transportation 2040 plan is to upgrade the 10th Avenue Corridor to be more safe, convenient, comfortable, and fun for people of all ages and abilities to walk and cycle.

The 10th Avenue local street bikeway runs from Victoria Drive to Trafalgar Street, linking many key destinations like Vancouver General Hospital (VGH), Central Broadway, and Commercial Drive, plus several busy north-south cycling routes. Over 500,000 people cycle on 10th Avenue every year, making it one of the busiest east-west bikeways in the city.

We are at the start of a planning and design process for the 10th Avenue Corridor. Your feedback will help identify opportunities and challenges to support active transportation improvements.

This project will be developed and implemented between 2015 and 2017.

This section will help us understand how you currently get around.

How do you usually travel on 10th Avenue?

Please select one response for each item.

	Frequently (at least 4-5 times a week)	Often (at least once a week)	Sometimes (at least once a month)	Rarely (once every few months)	Never
Walk (including wheelchair or other assistive device)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit (e.g. Community Shuttle, HandyDart, bus on Broadway and walk to 10 th Ave destination etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driving with others in a car, truck, van - either as a passenger or as the driver	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driving alone in a car, truck, van	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you use any other modes of transportation?

Please be as specific as possible.

Do you agree with the following statements: 10th Avenue is a safe, enjoyable place for...

Rate your response on a scale of 1 to 5. 1 means you strongly disagree. 5 means you strongly agree.

If you don't know, select "unsure." Select "Not applicable" if the statement does not apply to you.

	1 Strongly disagree	2	3 Unsure	4	5 Strongly agree	Not Applicable
Walking in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walking during rush hour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walking with children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crossing the street on foot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling in rush hour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cycling with children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driving in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driving during rush hour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parking a bike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parking a motor vehicle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about cycling, walking and motor vehicle traffic on 10th Avenue? *Select all that apply.*

	I don't notice it	It's too noisy	It's too busy	I feel unsafe
Motor vehicle traffic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle traffic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foot traffic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Compared to other nearby local streets, do you enjoy travelling on 10th Avenue? *Select one.*

- ☐ I really like it
- ☐ I like it
- ☐ Neutral
- ☐ I don't like it
- ☐ I really don't like it

When considering all of the ways that people travel - walking, cycling, transit and driving - what issues and opportunities do you feel are most important for the 10th Avenue Corridor?

Our goal is to design walking and cycling routes that are comfortable, safe and enjoyable for people of all ages and abilities. Achieving this level of comfort on 10th Avenue will require some changes within the existing space-constrained corridor. Which key trade-offs would you like us to consider in order to achieve this goal?

	Yes	No	Unsure /don't know	Comments, Example Locations
Improving visibility at problem locations, especially at intersections, by adding corner bulges, removing limited on-street parking, or landscaping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Converting some blocks into one-way streets for motor vehicles to provide enough space for people of all ages and abilities to cycle comfortably	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Converting some blocks into one-way streets for motor vehicles to retain on-street parking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Removing on-street parking from one side of the street to provide enough space for people to cycle comfortably	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Prohibiting some turning movements or limiting some streets with lower motor vehicle volumes for use by only emergency services, people walking, and people cycling to improve comfort and safety at key street crossings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Installing protected bike lanes where motor vehicle volumes are high by removing some on-street parking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Installing protected bike lanes where motor vehicle volumes are high by replacing or relocating some street trees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Installing protected bike lanes where motor vehicle volumes are high by converting the street to one-way for motor vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Installing and maintaining pick-up and drop-off bays or short-term parking at key locations by replacing or relocating street trees as needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Are there any other changes you would like us to explore?

Do you have any other comments you'd like to share with us?

It is extremely important to us that we hear from a diversity of people and perspectives. The following questions help us to determine how the feedback we receive represents the community. Please note that individual responses are treated as 'anonymous' and personal data is not shared with any third-party agencies or organizations.

To help us with data collection, please provide your home postal code: _____

What is your connection to the 10th Avenue Corridor? *Check all that apply.*

- | | |
|--|--|
| <input type="radio"/> I own in the area | <input type="radio"/> I go to school in the area |
| <input type="radio"/> I rent in the area | <input type="radio"/> I commute on 10 th Avenue |
| <input type="radio"/> I work in the area | <input type="radio"/> None |
| <input type="radio"/> I shop in the area | <input type="radio"/> Other _____ |

How old are you?

- | | |
|---------------------------------------|--------------------------------------|
| <input type="radio"/> 19 yrs or under | <input type="radio"/> 50-59 yrs |
| <input type="radio"/> 20-29 yrs | <input type="radio"/> 60-69 yrs |
| <input type="radio"/> 30-39 yrs | <input type="radio"/> 70-79 yrs |
| <input type="radio"/> 40-49 yrs | <input type="radio"/> 80 yrs or over |

Do you currently use a wheelchair, scooter, walker, cane, or other mobility aid?

- ☐ Yes
☐ No

Do you have children under the age of 18 at home?

- ☐ Yes
☐ No

Do you primarily identify as...

- ☐ Female
☐ Male
☐ Transgender
☐ Other _____
☐ Prefer not to say

Would you like to receive updates about the 10th Avenue Corridor project?

- ☐ Yes (please include your e-mail address) _____
☐ No

By providing your contact information, you are subscribing to an email newsletter regarding the 10th Avenue Corridor project. You acknowledge that you can unsubscribe at any time by emailing the email address below with "unsubscribe 10th Avenue Corridor" in the subject line.

Thank you for taking the time to complete this feedback form. Please place the form in the drop box here today or submit it by **November 15 2015** through any of the following methods:

E-mail:
10thavenue@vancouver.ca

Online:
vancouver.ca/10th-avenue

Mail:
City of Vancouver
Attention: Active Transportation
Engineering Services
507 W Broadway, Vancouver BC V5Z 0B4

Drop off at:
City Hall brass box
453 W 12th Ave, Vancouver
Attention: Active Transportation



10TH AVE CORRIDOR PHASE 2 FEEDBACK FORM RESULTS

May 2016



Between November 2015 and April, 2016, City staff conducted Phase 2 of the 10th Ave Corridor consultation to build on the key messages we heard from Phase 1 consultation. Phase 2 consultation presented to the public three design options for the 10th Ave Health Precinct between Oak St and Cambie St. The following summarizes the public input received through the project's Phase 2 'feedback form', which was available through the City's 10th Ave Corridor webpage and in hard copy at the open house events. It was also distributed in an online format through Talk Vancouver. The feedback form's comment period was April 15 to May 15, 2016.

Overall Feedback

- The strongest support was for proposed public realm improvements (72%) and few expressed concern (10%). These included:
 - Raised crossings
 - New refuge areas
 - New accessible ramps
 - New crosswalks at Laurel
 - New trees
 - Level sidewalks
- Strong support for introducing new, fully protected bike lanes to physically separate people biking from both people driving and people walking. However, those who typically access health services or drive to the area expressed high concern.
- The possible introduction of protected bike lanes was the aspect respondents felt most strongly about.
- The uni-directional bikeway option was the preferred configuration compared to the north side and south side bi-directional bikeway options.
- Parking and wayfinding plans are critical to address driver access concerns to health services.
- Pick-up/drop-off zones need special attention to address concerns.
- Strong support for protected signal phasing at Oak St (57%), converting 10th Ave to one-way westbound from Cambie St to Willow St (60%), reallocating metered parking to accommodate protected bike lanes (60%), and car-free space on Heather St (59%).



Uni-directional Design Option Feedback

Overall, the uni-directional design option received more support compared to the north side and south side bi-directional design options. The most positively received elements of the uni-directional design option included:

- Reallocating on-street metered parking spaces on the south side of 10th Ave between Ash St and Cambie St to provide landscaping and avoid weaving the bike.
- New car-free green space on Heather St, north of 10th Ave through closure to motor vehicles.
- The protected bike lane design and alignment.

Bi-directional Design Options Feedback

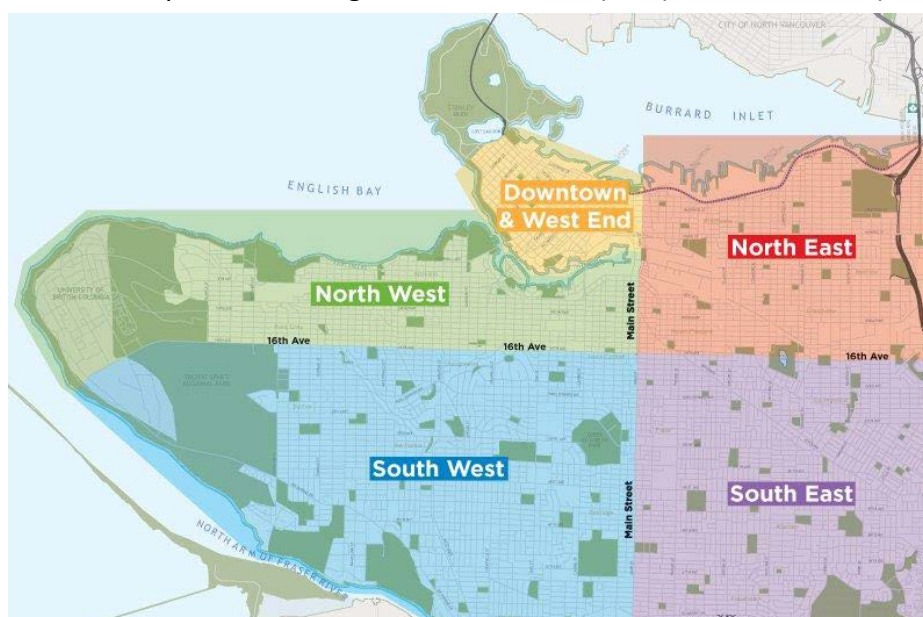
- The most supported design element of the north side bi-directional option was the new raised pedestrian and bike crossing at Willow St that aims to reduce speeds of turning vehicles, minimize conflicts and improve safety for all road users.
- The most supported design element of the south side bi-directional option was a protected signal phase for westbound drivers turning off 10th Ave onto Oak St.
- For both north side and south side bi-directional options, the largest concerns include the protected bike lane design and alignment, as well as banning westbound right turns for vehicles from 10th Ave onto Oak St and Ash St to reduce turning conflicts.



Who did we hear from?



- 177 people attended the two public open houses April, 2016.
- 1,068 people completed the feedback form at the public open houses events, online, and through Talk Vancouver (40% fewer than completed the Phase 1 feedback form)
- Most respondents indicated they walk and/or bike along 10th Ave (66%), and many indicated they access Health Services in the area (43%). The mix of respondents' connections to the area was similar to Phase 1, although local residents were better represented than in the Phase 1 feedback form (34% in Phase 2 vs 26% in Phase 1)
- Respondents indicated they most commonly travel along 10th Ave by cycling (44%), while 28% most commonly drive and 18% most commonly walk.
- We heard from similar numbers of women (45%) and men (51%). As with the Phase 1 feedback form, most were adults, with youth and young adults under 30 being underrepresented at only 11% of the survey sample. However, more seniors responded in Phase 2, with the age distribution of respondents getting closer to the age distribution of Vancouver overall.
- The distribution of respondents across the city was similar to Phase 1, with the greatest proportions of respondents living in the Northwest (27%) and Northeast (25%).





DETAILED FEEDBACK FORM RESULTS

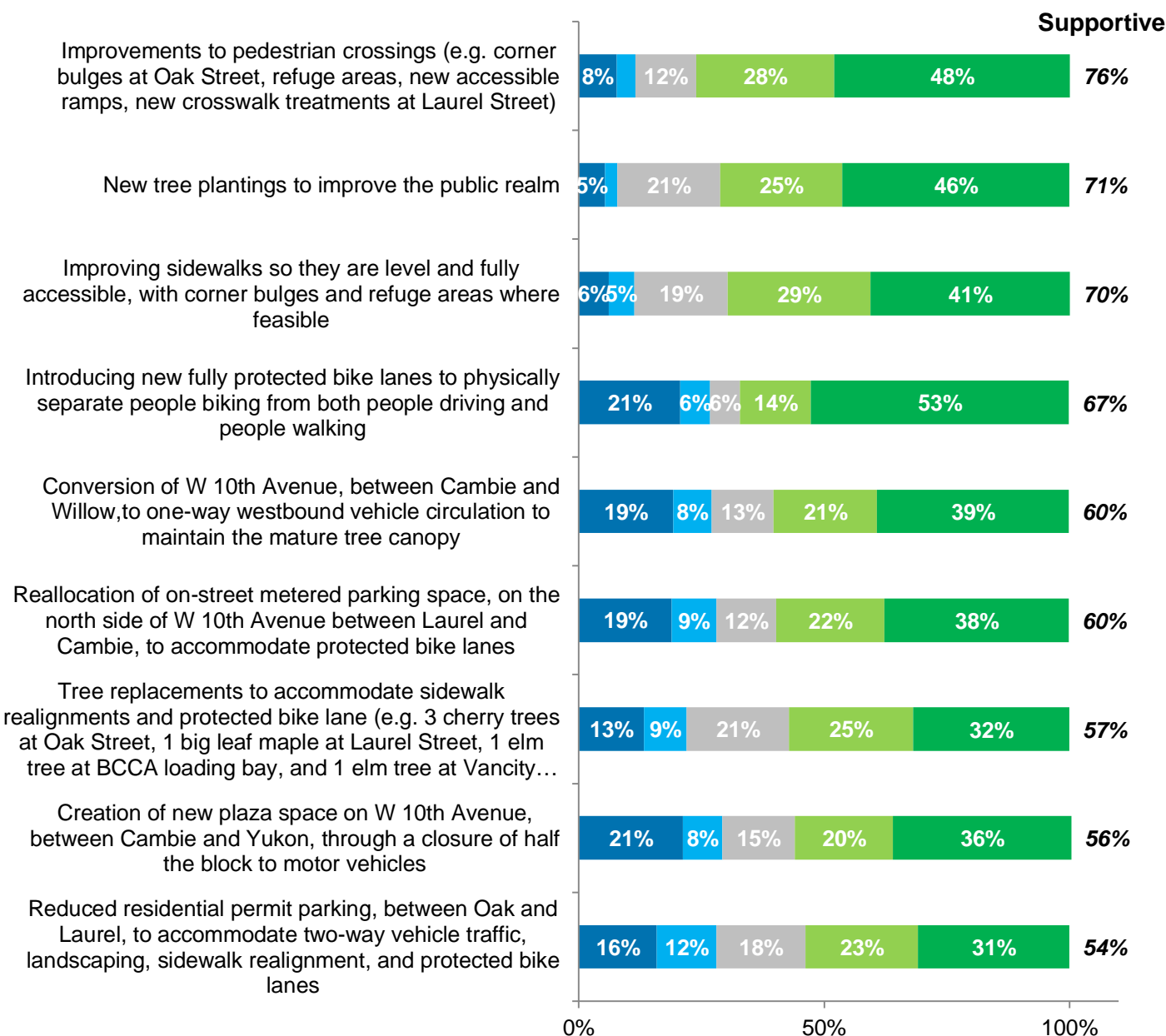


Overall Attitudes Common to All 3 Design Options

APPENDIX H
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Very Concerned Concerned Neutral Supportive Very Supportive



Base: All respondents (n = 1068)

*Base is 478 for "Improvements to pedestrian crossings..." and "Improving sidewalks so they are level..."

How do you feel about the following design changes common to all 3 design ?

10th Avenue Corridor : Health Precinct Consultation Summary (May 2016)

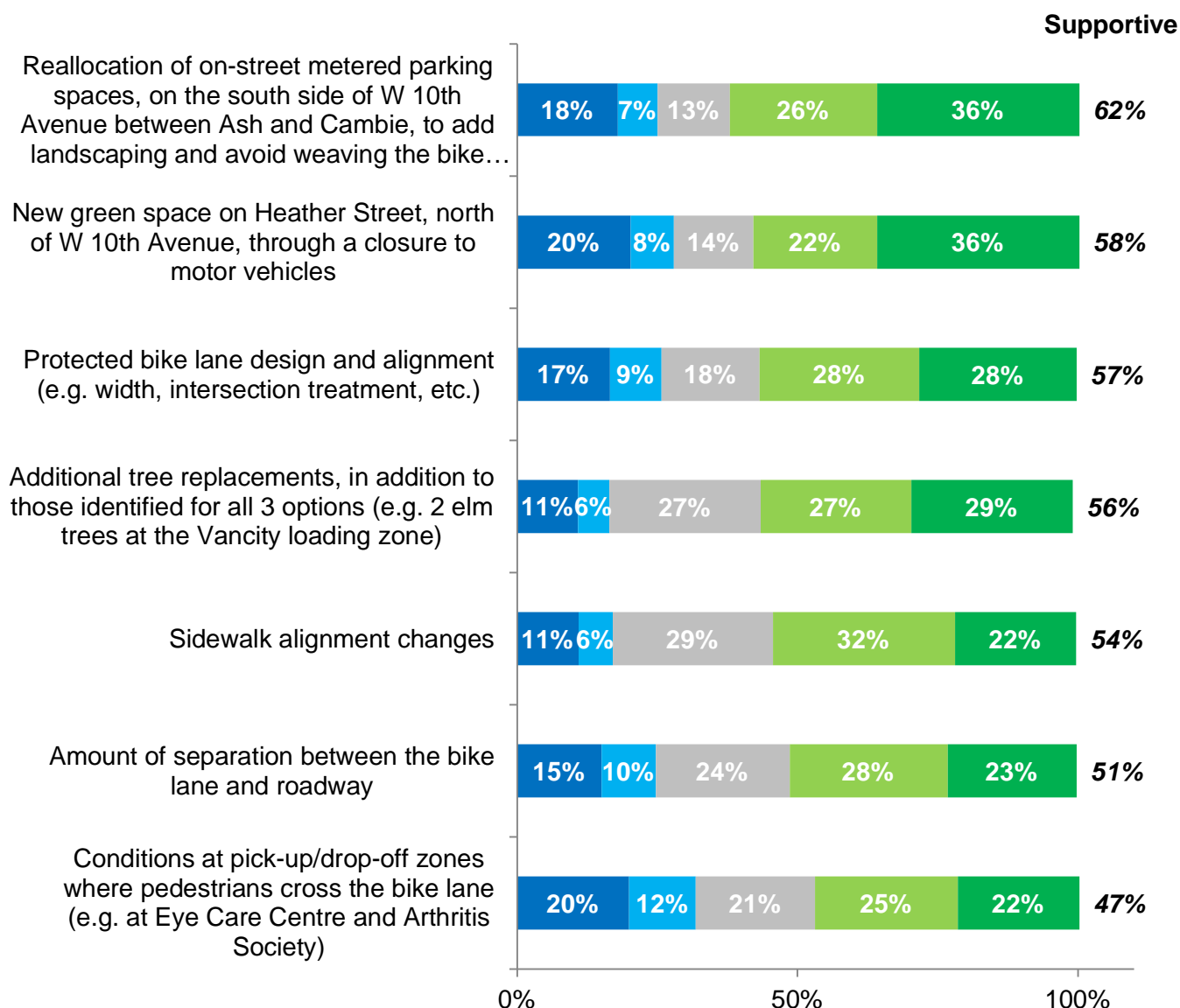


Attitudes toward Elements of Unidirectional Design Option

APPENDIX H
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■ Very Concerned ■ Concerned ■ Neutral ■ Supportive ■ Very Supportive



Base: All Respondents (n = 1068)

How do you feel about the following changes proposed in the uni-directional design option?



Comments: Uni-directional Design Option

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The following are some examples of the comments provided about the uni-directional bikeway option by respondents.

I use this bikeway often and a uni directional would make it safer for me, my child in a trailer and my wife.

The uni-directional plan means only crossing one way/lane of traffic and not two.

Uni-directional is slightly better at intersections so that cars can better expect which way the cyclists are coming from.

We need to ensure direction of traffic flow, drop off areas and signage make it very clear to patients seeking access to their health care.

I support the uni-directional bikeway option because it narrows the motor vehicle travel lane as much as possible, making drivers slow down.

I like this design, but am concerned about vehicle owners who would have bikes on either side of them and not checking both lanes before turning.

Biggest concern is the relatively large number of motorist-cyclist conflict zones that this option creates as opposed to the bi-directional options.

Base: Respondents who provided an answer (n=455)

Do you have any additional comments on the uni-directional bikeway option?

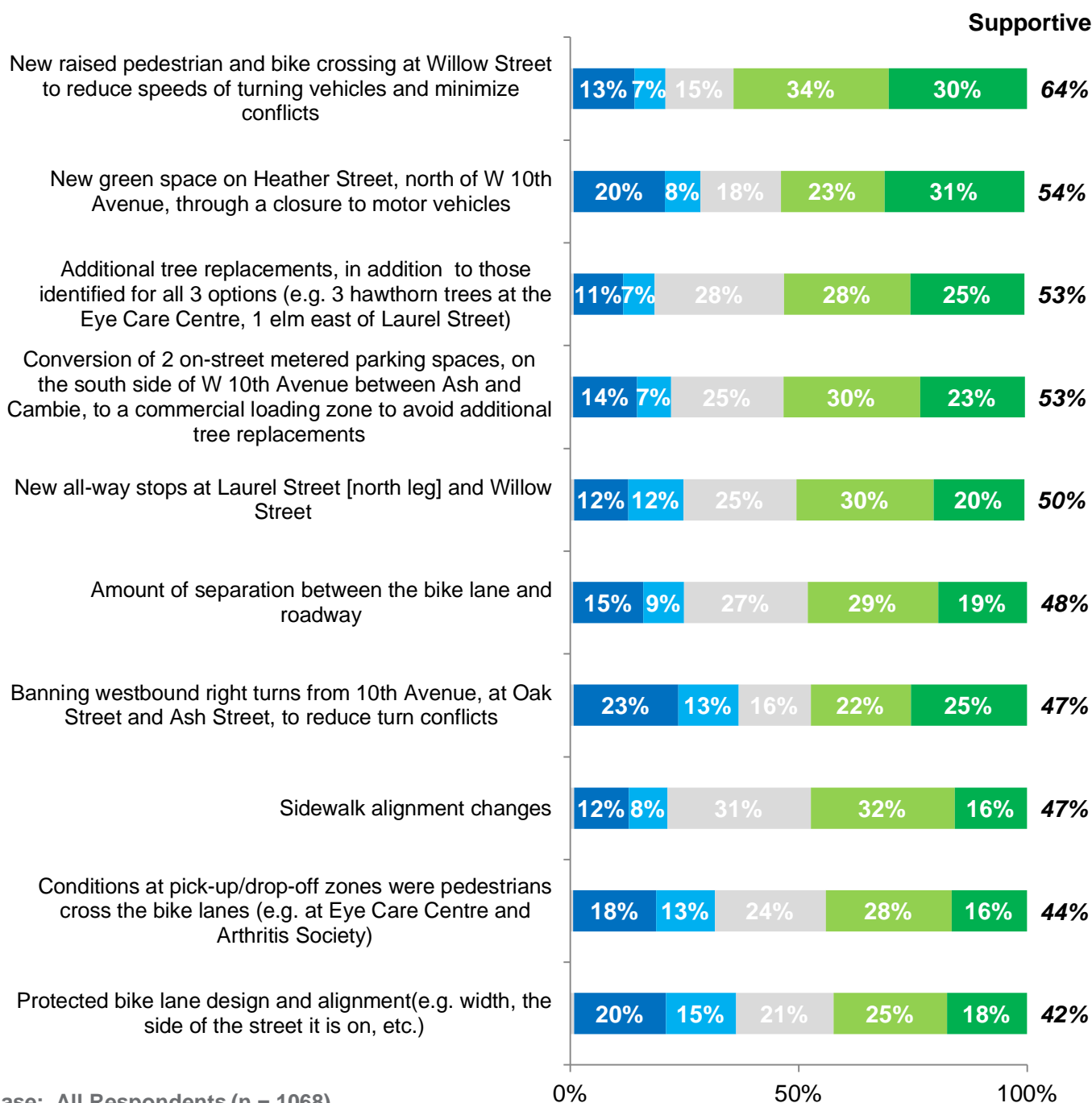


Attitudes toward Elements of North Bi-directional Design

APPENDIX H
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■ Did not answer ■ Very Concerned ■ Concerned ■ Neutral ■ Supportive ■ Very Supportive



How do you feel about the following changes proposed in the north side bi-directional design option?



Comments: North Bi-directional Design



The following are some examples of the comments provided about the north side bi-directional bikeway option:

This option looks great, mainly because it avoids conflict with many driveways on the south side of the street.

Notifying the visually impaired entering and leaving the eye care centre is important for both options.

Steps need to be taken to reduce the risk to vulnerable patients that will be dropped off.

I'm worried about people turning into the bike lane.

I am concerned about turning at intersections, but I think the proposed turning changes for vehicle owners will help with this issue.

Putting bi-directional bike traffic on one side of the street creates a situation where bikes are travelling in a direction that car drivers do not expect.

The north side option would keep the emergency entrance to VGH accessible for ambulances and patients being driven to the hospital.

Base: Respondents who provided an answer (n=344)

Do you have any additional comments on the north side bi-directional bikeway option?

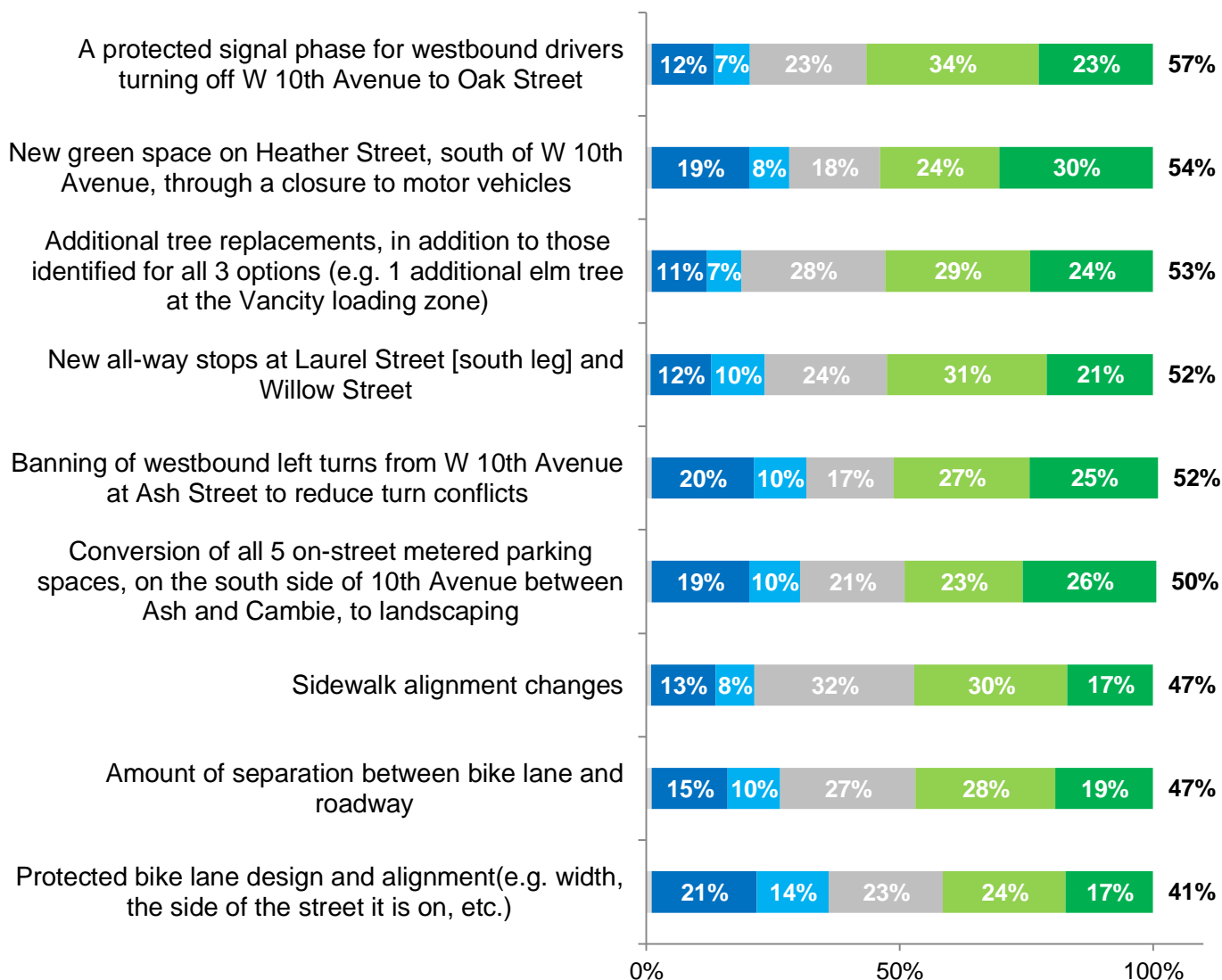


Attitudes toward Elements of South Bi-directional Design

APPENDIX H
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■ Did not answer ■ Very Concerned ■ Concerned ■ Neutral ■ Supportive ■ Very Supportive



Base: Respondents (n = 1067)

How do you feel about the following changes proposed in the south side bi-directional design option?



Comments: South Bi-directional Design



The following are some examples of the comments provided about the south side bi-directional bikeway option:

The confusion of bi-directional travel on one side of the street adds to the stress of people driving in the area.

I like that this option has the least number of tree removals.

There should be signage on the bike lanes to alert them of VGH's ER entrance / exit.

Need to maintain access to all medical facilities.

Some concerns with transitions to the bi directional bike lanes at Cambie and at Oak.

Crossing of ambulances and bicycles are highly undesired.

Bi-directional bikeway on the south seems to have more conflicts compared to the north side.

Base: Respondents who provided an answer (n=303)

Do you have any additional comments on the south side bi-directional bikeway option?



General Comments



The following are some examples of the general comments provided by respondents about the project.

All projects should be prioritized with pedestrian safety first.

New signage such as “you are entering a hospital zone” should be included.

Traffic calming on Ash and Heather required.

Building a parkade to accommodate lost parking must be in plan.

There must be adequate separation between the pick up / drop off zones and the bike lanes.

My greatest fear as a cyclist is navigating streets where parking is permitted on both sides of the street.

Information should be provided city which states how to access the various target locations along 10th Avenue.

Base: Respondents who provided an answer (n=420)

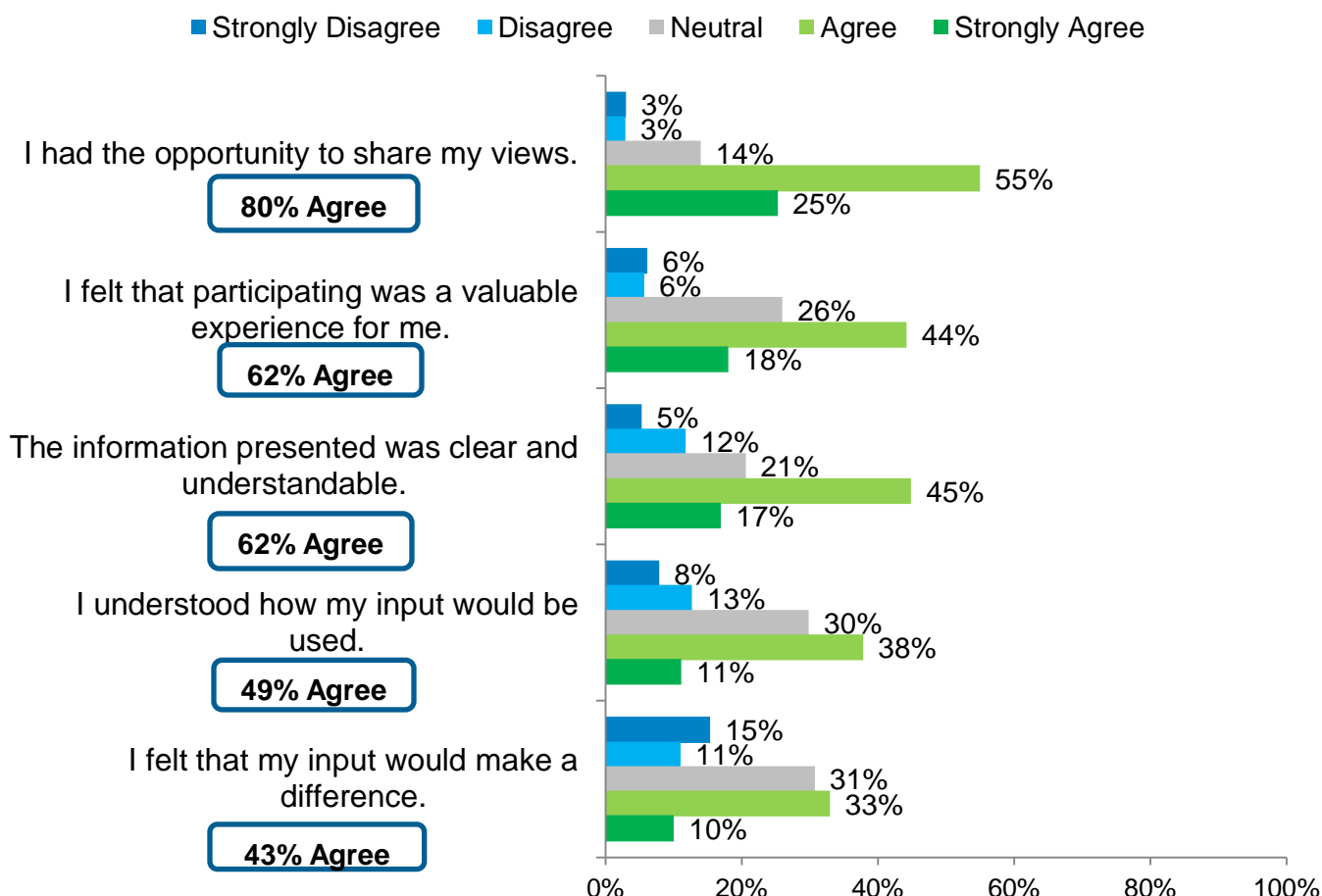
Do you have any additional comments that you would like to provide on the project?



Consultation Experience



- Overall, respondents viewed the consultation experience positively. Over 80% of respondents felt they had an opportunity to share their views, and 62% of respondents felt that participating in the open houses and travel survey was a valuable experience.
- Respondents had mixed opinions with regards to their input being used and making a difference.

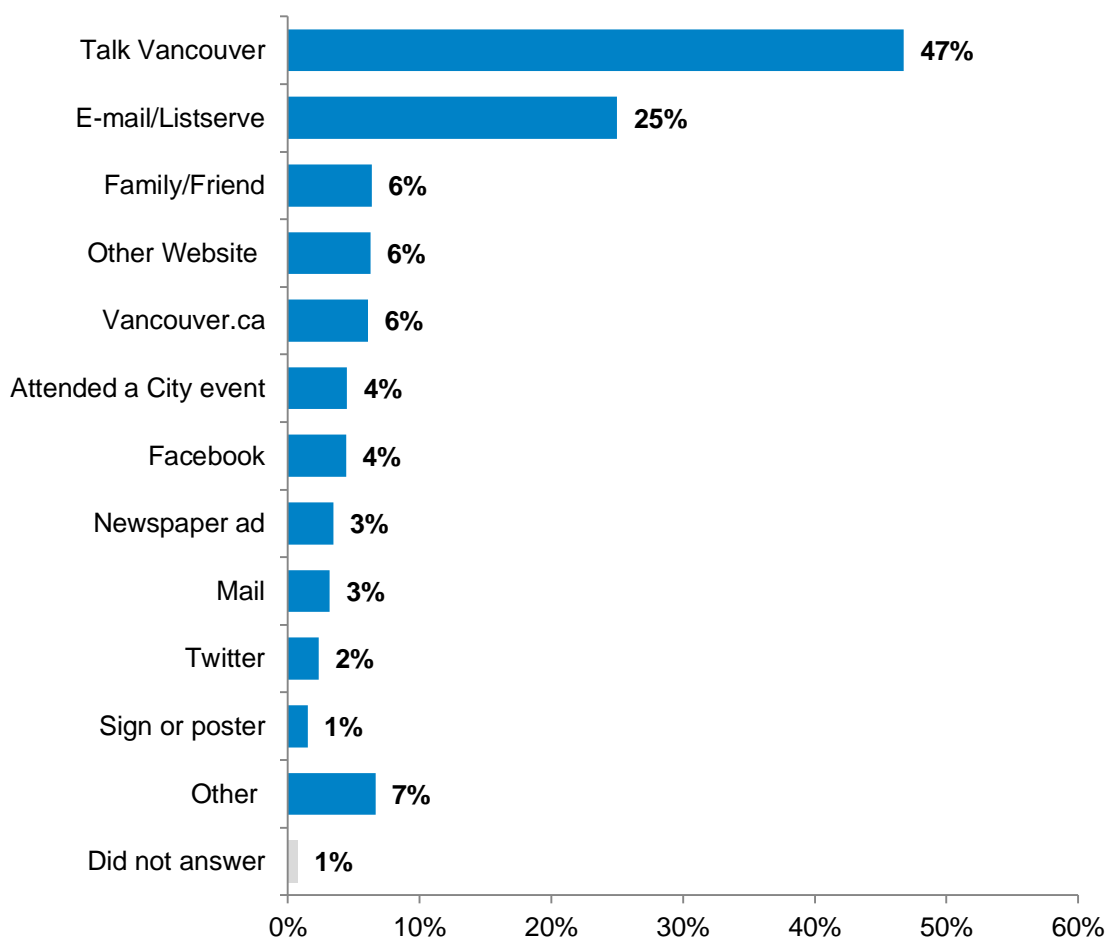


Base: All Respondents (n = 1068)

Reflecting on your experience with the consultation for the 10th Avenue Health Precinct Design Options (10th Ave. between Oak and Yukon), how would you rate the following?



Source of Information about Project Consultation



Base: All Respondents (n = 1068)

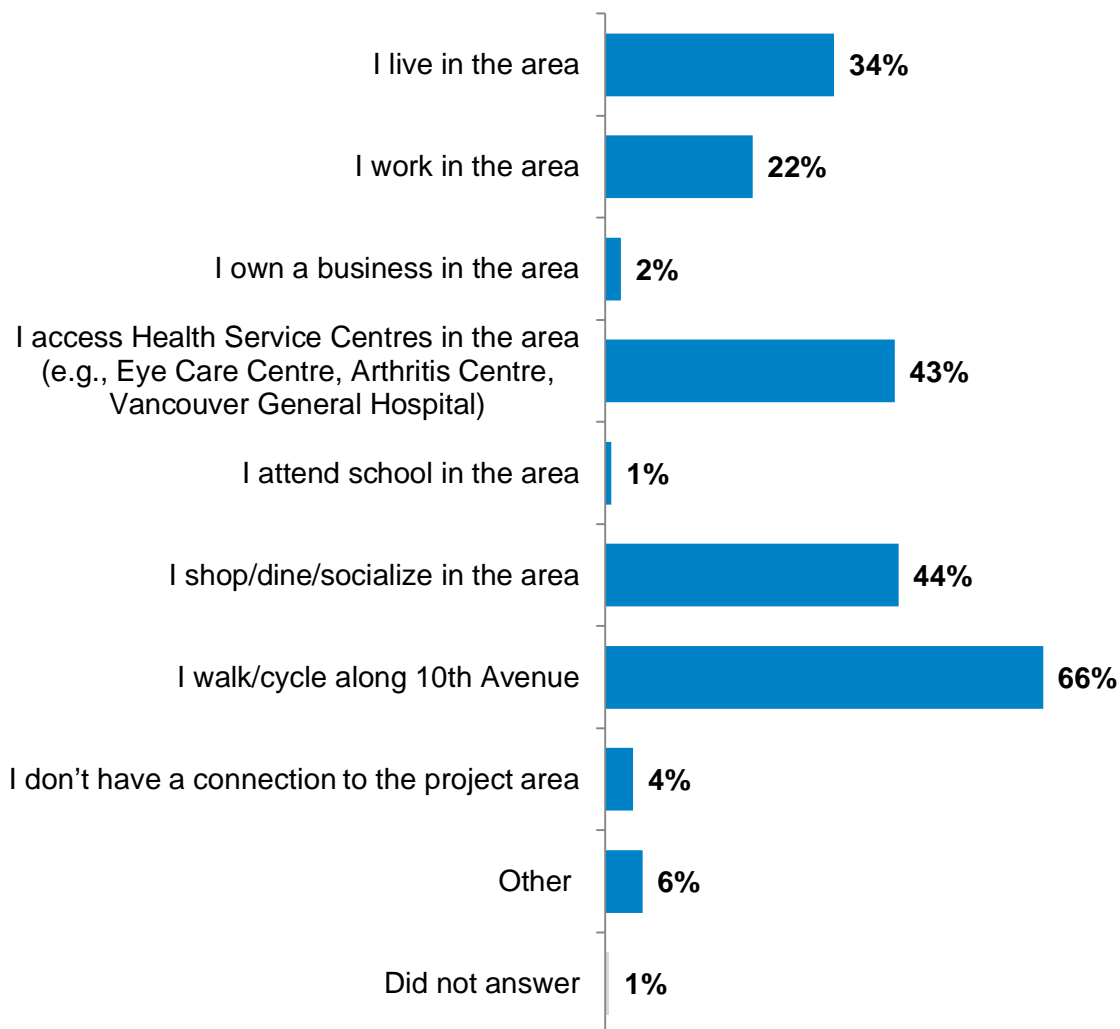
How did you find out about the 10th Avenue Health Precinct consultation?



DEMOGRAPHICS



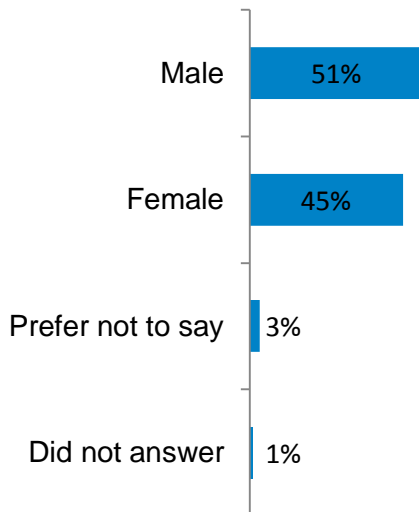
Connection to Area



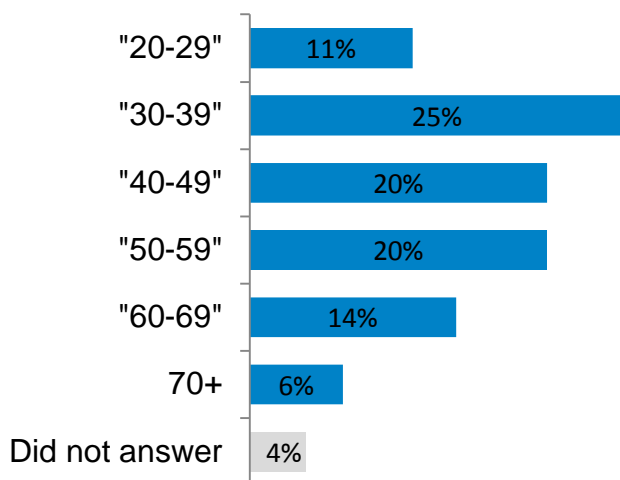


Respondents

Gender

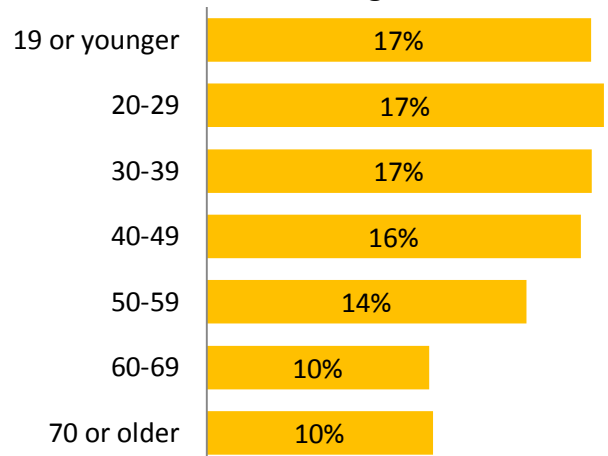


Age



City of Vancouver 2011 Census

Age



Base: All respondents (n=1068)

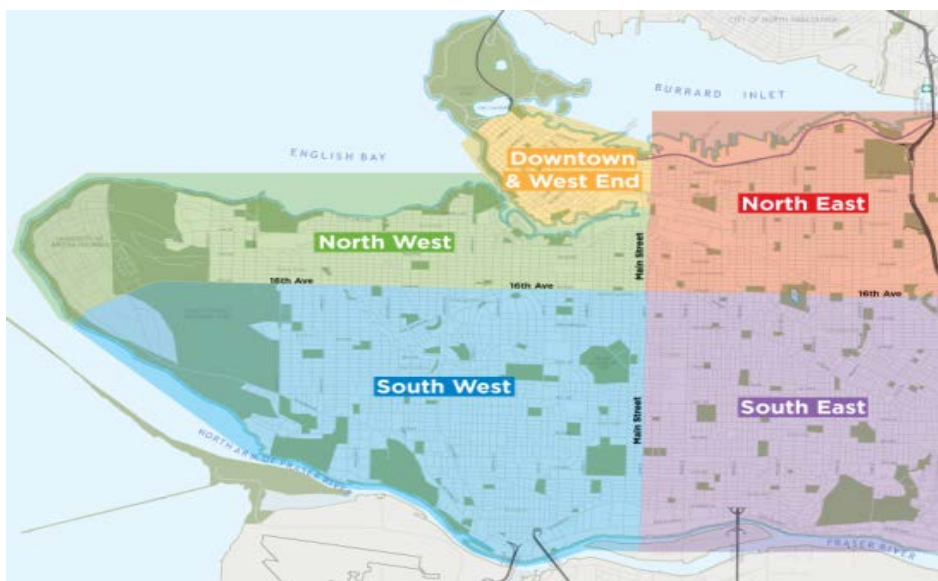
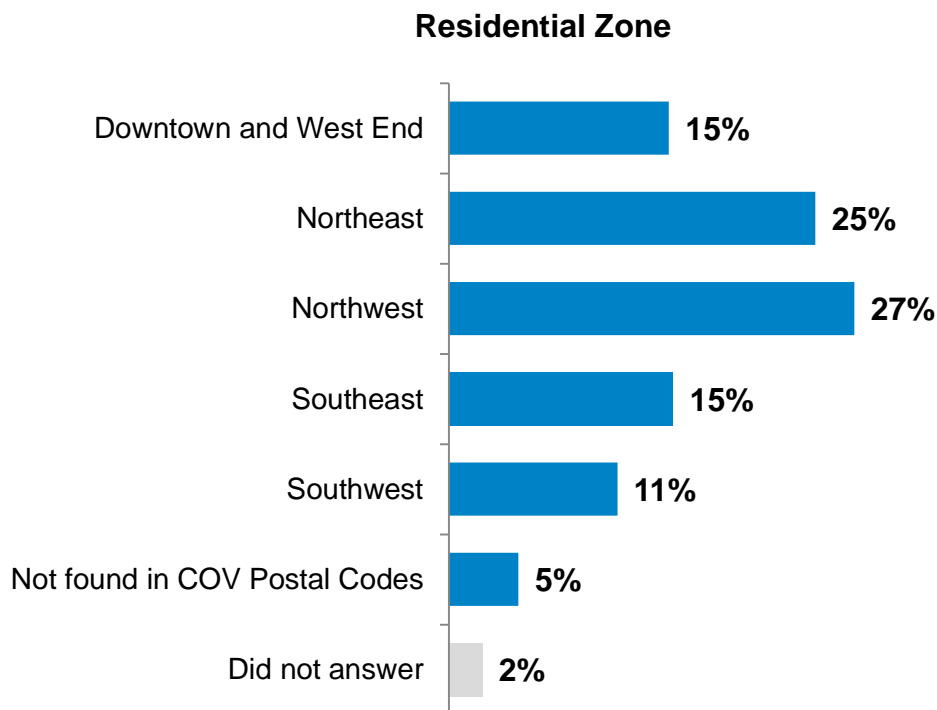


Gender and Age



Gender	Phase 1 Consultation	Phase 2 Consultation
Male	49%	51%
Female	47%	45%
Transgender	0%	0%
Other	0%	0%
Prefer not to say	3%	3%
Number of respondents	1789	1067

Age	Phase 1 Consultation	Phase 2 Consultation
19 and under	1%	0%
20-29	15%	11%
30-39	30%	25%
40-49	21%	20%
50-59	17%	20%
60-69	13%	14%
70+	3%	6%
Did not answer	0%	4%
Number of respondents	1789	1067



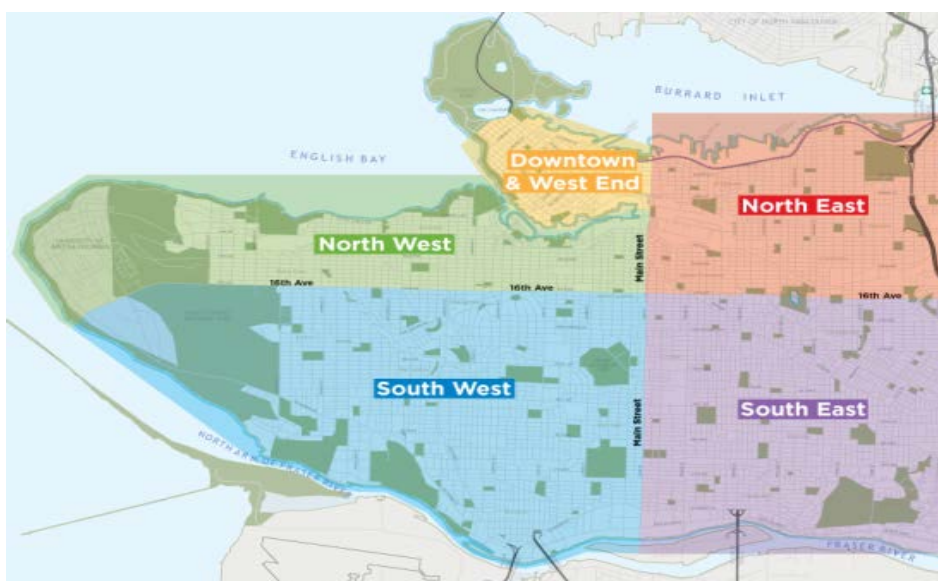
Base: All respondents (n=1068)



Residential Zone



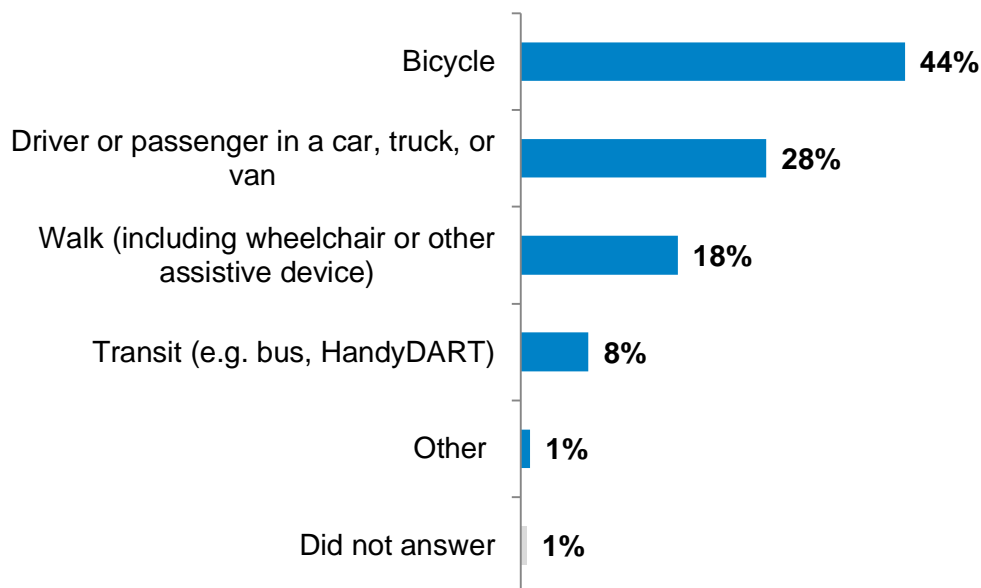
Residential Zone	Phase 1 Consultation	Phase 2 Consultation
Downtown and West End	9%	15%
Northeast	25%	25%
Northwest	32%	27%
Southeast	17%	15%
Southwest	8%	11%
Not found in COV Postal Code	7%	5%
Number of respondents	1789	1067



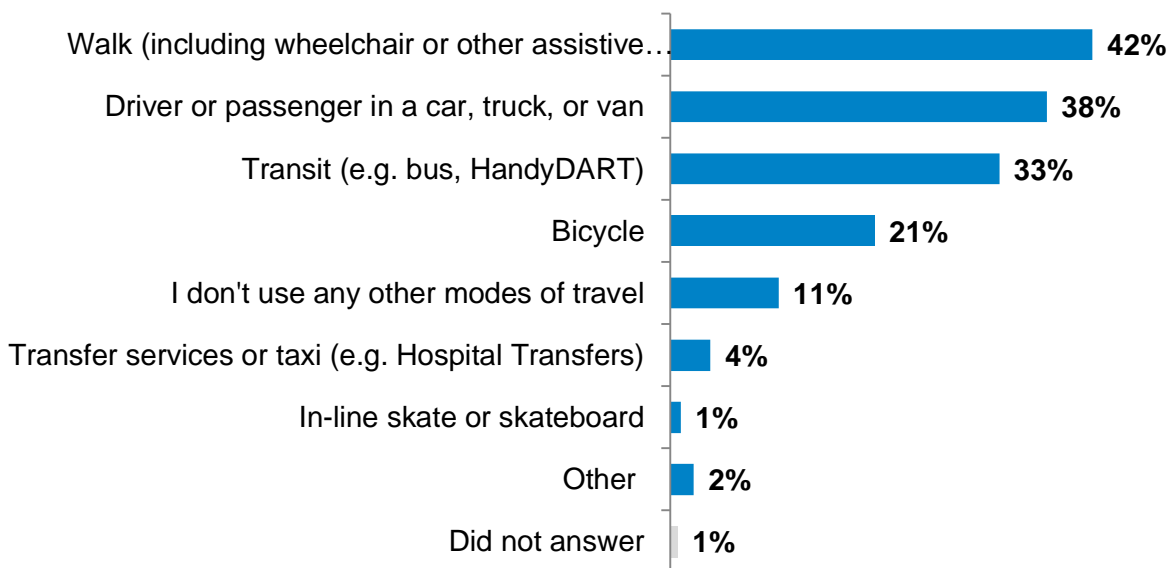
Base: All respondents (n=1068)



Primary Mode of Travel along 10th Ave Health Precinct



Other Modes of Travel along 10th Ave Health Precinct



Base: All respondents (n=1068)



PHASE 2 CONSULTATION FEEDBACK FORM



Please provide your postal code:

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We want to hear from you!

The City of Vancouver is planning to improve the 10th Avenue Corridor (10th Avenue between Trafalgar and Victoria Streets) to make it safer and more comfortable for people of all ages and abilities to walk and cycle. Building on what we heard from you at events in the fall, we have focused our initial efforts on developing design options for the **10th Avenue Health Precinct**, which is the stretch of W 10th Avenue between Oak and Yukon Streets (centred around Vancouver General Hospital).

The three protected bikeway design options for the 10th Avenue Health Precinct are:

- 1) **Uni-Directional Bikeway Option** (one-way bike lane on both sides of the street)
- 2) **North Side Bi-Directional Bikeway Option**(both bike lanes on the north side of the street)
- 3) **South Side Bi-Directional Bikeway Option** (both bike lanes on the south side of the street)

Please take the time to review the 10th Avenue Health Precinct Design Option material and answer the following questionnaire. Your feedback will be considered along with stakeholder feedback and further technical review to refine the design for the Health Precinct. Staff plan to conduct further public consultation on a recommended design in Fall 2016.

W 10th Avenue Health Precinct Design Options (W 10th Avenue between Oak and Yukon)

Please keep in mind the project’s 6 key objectives while answering the following questions:

- 1. Upgrade the 10th Avenue Bike Route so that it is safe and comfortable for people of all ages and abilities to cycle
- 2. Improve comfort and accessibility for people on foot
- 3. Ensure efficient and intuitive access to hospital emergency facilities for both ambulance drivers and the general public
- 4. Preserve as much of the street’s healthy and mature tree canopy as possible
- 5. Accommodate the loading and patient/client access needs of adjacent medical services, businesses, and other institutions
- 6. Ensure adjacent residents can continue to park within a reasonable walking distance of home

1. How do you feel about the following design changes common to all 3 design options?

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Improving sidewalks so they are level and fully accessible, with corner bulges and refuge areas where feasible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introducing new fully protected bike lanes to physically separate people biking from both people driving and people walking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conversion of W 10 th Avenue, between Cambie and Willow, to one-way westbound vehicle circulation to maintain the mature tree canopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced residential permit parking , between Oak and Laurel, to accommodate two-way vehicle traffic, landscaping, sidewalk realignment, and protected bike lanes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reallocation of on-street metered parking space , on the north side of W 10 th Avenue between Laurel and Cambie, to accommodate protected bike lanes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improvements to pedestrian crossings (e.g. corner bulges at Oak Street, refuge areas, new accessible ramps, new crosswalk treatments at Laurel Street)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New tree plantings to improve the public realm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continued next page...

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Tree replacements to accommodate sidewalk realignments and protected bike lane (e.g. 3 cherry trees at Oak Street, 1 big leaf maple at Laurel Street, 1 elm tree at BCCA loading bay, and 1 elm tree at Vancity parkade entrance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creation of new plaza space on W 10th Avenue, between Cambie and Yukon, through a closure of half the block to motor vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Uni-Directional Bikeway Design Option

Please review the material on boards **1a and 1b** and provide your feedback below on the design option with a one-way protected bike lane on both sides of W 10th Avenue, keeping in mind the project’s 6 key objectives:

1.

Upgrade the 10th Avenue Bike Route so that it is safe and comfortable for people of all ages and abilities to cycle
2.

Improve comfort and accessibility for people on foot
3.

Ensure efficient and intuitive access to hospital emergency facilities for both ambulance drivers and the general public
4.

Preserve as much of the street’s healthy and mature tree canopy as possible
5.

Accommodate the loading and patient/client access needs of adjacent medical services, businesses, and other institutions
6.

Ensure adjacent residents can continue to park within a reasonable walking distance of home

2. How do you feel about the following changes proposed in the uni-directional design option?

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Amount of separation between the bike lane and roadway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protected bike lane design and alignment (e.g. width, intersection treatment, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sidewalk alignment changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New green space on Heather Street, north of W 10th Avenue, through a closure to motor vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reallocation of on-street metered parking spaces, on the south side of W 10 th Avenue between Ash and Cambie, to add landscaping and avoid weaving the bike lane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conditions at pick-up/drop-off zones where pedestrians cross the bike lane (e.g. at Eye Care Centre and Arthritis Society)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional tree replacements, in addition to those identified for all 3 options (e.g. 2 elm trees at the Vancity loading zone)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Do you have any additional comments on the uni-directional bikeway option?

North Side Bi-Directional Bikeway Design Option

Please review material on boards **2a and 2b** and provide your feedback below for the design option with a two-way protected bike lane on the north side of W 10th Avenue, keeping in mind the project’s 6 key objectives:

1.

Upgrade the 10th Avenue Bike Route so that it is safe and comfortable for people of all ages and abilities to cycle
2.

Improve comfort and accessibility for people on foot
3.

Ensure efficient and intuitive access to hospital emergency facilities for both ambulance drivers and the general public
4.

Preserve as much of the street’s healthy and mature tree canopy as possible
5.

Accommodate the loading and patient/client access needs of adjacent medical services, businesses, and other institutions
6.

Ensure adjacent residents can continue to park within a reasonable walking distance of home

4. How do you feel about the following changes proposed in the north side bi-directional design option?

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Amount of separation between the bike lane and roadway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protected bike lane design and alignment (e.g. width, the side of the street it is on, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sidewalk alignment changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Banning westbound right turns from 10 th Avenue, at Oak Street and Ash Street, to reduce turn conflicts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New all-way stops at Laurel Street [north leg] and Willow Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New green space on Heather Street, north of W 10th Avenue, through a closure to motor vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conversion of 2 on-street metered parking spaces , on the south side of W 10 th Avenue between Ash and Cambie, to a commercial loading zone to avoid additional tree replacements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New raised pedestrian and bike crossing at Willow Street to reduce speeds of turning vehicles and minimize conflicts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conditions at pick-up/drop-off zones were pedestrians cross the bike lanes (e.g. at Eye Care Centre and Arthritis Society)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional tree replacements , in addition to those identified for all 3 options (e.g. 3 hawthorn trees at the Eye Care Centre, 1 elm east of Laurel Street)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Do you have any additional comments on the north side bi-directional bikeway option?

South Side Bi-Directional Bikeway Design Option

Please review material on boards **3a and 3b** and provide your feedback below for the design option with a two-way protected bike lane on the south side of W 10th Avenue, keeping in mind the project’s 6 key objectives:

1. Upgrade the 10th Avenue Bike Route so that it is safe and comfortable for people of all ages and abilities to cycle
2. Improve comfort and accessibility for people on foot
3. Ensure efficient and intuitive access to hospital emergency facilities for both ambulance drivers and the general public
4. Preserve as much of the street’s healthy and mature tree canopy as possible
5. Accommodate the loading and patient/client access needs of adjacent medical services, businesses, and other institutions
6. Ensure adjacent residents can continue to park within a reasonable walking distance of home

6. How do you feel about the following changes proposed in the south side bi-directional design option?

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Amount of separation between bike lane and roadway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protected bike lane design and alignment (e.g. width, the side of the street it is on, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sidewalk alignment changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A protected signal phase for westbound drivers turning off W 10 th Avenue to Oak Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Banning of westbound left turns from W 10 th Avenue at Ash Street to reduce turn conflicts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New all-way stops at Laurel Street [south leg] and Willow Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New green space on Heather Street, south of W 10th Avenue, through a closure to motor vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conversion of all 5 on-street metered parking spaces, on the south side of 10 th Avenue between Ash and Cambie, to landscaping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional tree replacements, in addition to those identified for all 3 options (e.g. 1 additional elm tree at the Vancity loading zone)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Do you have any additional comments on the south side bi-directional bikeway option?

Additional Comments

8. Do you have any additional comments that you would like to provide on the project?

9. Reflecting on your experience with the consultation for the 10th Avenue Health Precinct Design Options (10th Ave. between Oak and Yukon), how would you rate the following?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The information presented was clear and understandable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understood how my input would be used	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that my input would make a difference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that participating was a valuable experience for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had the opportunity to share my views	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10th Avenue Corridor Email List

☐ Yes, I would like to receive updates on the 10th Avenue Corridor project (10th Ave from Trafalgar Street to Victoria Drive)

Name:

Email:

By providing your contact information above, you are subscribing to an email list regarding 10th Avenue Corridor project. You acknowledge that you can unsubscribe at anytime by emailing 10thavenue@vancouver.ca with “unsubscribe 10th Avenue Corridor” in the subject line.

Tell us a little about yourself

It is important to us that we hear from a diversity of people. The following questions help us to determine how the feedback we receive represents the community. Individual responses are treated as anonymous.

What is your connection to the 10th Avenue Corridor? *Select all that apply.*

- ☐ I live in the area
- ☐ I work in the area
- ☐ I own a business in the area
- ☐ I access Health Service Centres in the area (e.g., Eye Care Centre, Arthritis Centre, Vancouver General Hospital)
- ☐ I attend school in the area
- ☐ I shop/dine/socialize in the area
- ☐ I walk/cycle along 10th Avenue
- ☐ I don't have a connection to the project area
- ☐ Other (please specify): _____

What mode of transportation do you most often use to access the Health Precinct? *Select one.*

- ☐ Walk (including wheelchair or other assistive device)
- ☐ Bicycle
- ☐ In-line skate or skateboard
- ☐ Transit (e.g. bus, HandyDART)
- ☐ Transfer services or taxi (e.g. Hospital Transfers)
- ☐ Driver or passenger in a car, truck, or van
- ☐ Other (please specify): _____

What other modes of transportation do you use to access the Health Precinct? *Select all that apply.*

- ☐ Walk (including wheelchair or other assistive device)
- ☐ Bicycle
- ☐ In-line skate or skateboard
- ☐ Transit (e.g. bus, HandyDART)
- ☐ Transfer services or taxi (e.g. Hospital Transfers)
- ☐ Driver or passenger in a car, truck, or van
- ☐ I don't use any other modes of travel
- ☐ Other (please specify): _____

How did you find out about the 10th Avenue Health Precinct Open House events? *Select all that apply.*

- ☐ Attended a City event
- ☐ Mail
- ☐ E-mail/Listserve
- ☐ Talk Vancouver
- ☐ Vancouver.ca
- ☐ Other Website (please specify): _____
- ☐ Newspaper ad
- ☐ Sign or poster
- ☐ Facebook
- ☐ Twitter
- ☐ Family/Friend (word of mouth)
- ☐ Other (please specify): _____

Do you primarily identify as?

- ☐ Male
- ☐ Female
- ☐ Transgender
- ☐ None of the above. I identify as _____
- ☐ Prefer not to answer

What age category do you fall in?

- ☐ 19 yrs or under
- ☐ 20-29 yrs
- ☐ 30-39 yrs
- ☐ 40-49 yrs
- ☐ 50-59 yrs
- ☐ 60-69 yrs
- ☐ 70 yrs or over
- ☐ Prefer not to answer

THANK YOU!

Thank you for taking the time to complete this questionnaire on 10th Avenue Health Precinct Design Options. Please place the form in the drop box here today or submit it by May 15, 2016 through any of the following methods:

Email: 10thavenue@vancouver.ca

Online: vancouver.ca/10th-avenue

Mail: City of Vancouver
Attention: Active Transportation
Engineering Services
320-507 W Broadway, Vancouver, BC V5Z 0B4

Drop off at: City Hall brass box
453 W 12th Avenue, Vancouver
Attention: Active Transportation



10TH AVENUE CORRIDOR

PHASE 3 FEEDBACK FORM RESULTS

January 2017



Between May and November, 2016, City staff conducted Phase 3 of the 10th Ave Corridor consultation to build upon the key messages we received from Phase 2 consultation. Phase 3 consultation presented to the public the recommended design for the 10th Ave Health Precinct, along with proposed design options for two other segments of the 10th Ave Corridor: Quebec St to Guelph St and Commercial Dr to Victoria Dr. The following summarizes the public input received through the project's Phase 3 'feedback form', which was available through the City's 10th Ave Corridor webpage and in hard copy at the open house events. It was also distributed in an online format through Talk Vancouver. The feedback form's comment period was November 22 to December 12, 2016

10th Ave Health Precinct (Oak St to Cambie St) Feedback

On average, 56% of respondents supported and 24% of respondents expressed concern regarding how well the City's recommended design for the Health Precinct meets various project objectives. People who typically walk or bike in the area tended to be the most supportive, while people who typically drive were split with roughly half expressing support and half expressing concern.

The most well received elements of the recommended design for the Health Precinct include:

- Formalizing 10th Ave crosswalks at Laurel St with new paint, accessible pedestrian ramps, and refuge areas.
- Improving wayfinding and adding parking to the Health Precinct in collaboration with Vancouver Coastal Health.
- Lengthening, fully-raising, and adding shelters to passenger zones in front of the Eye Care and Mary Pack Arthritis Centres.
- Committing to a process that monitors results, provides updates to key stakeholders, and makes spot improvements based on the conclusions.
- Fully-raising the Willow St /10th Ave and Heather St /10th Ave intersections, and raising the north-south crosswalk in front of the Mary Pack Arthritis Centre.
- Adding new street furniture and landscaping where feasible.

Respondents had mixed feelings about other elements of the design, including:

- Converting some metered parking on Laurel St and Willow St to pick-up/drop-off zones, staging areas, and residential permit parking.
- Converting 10th Ave to one-way westbound for vehicles, from Cambie St to Willow St
- Reducing vehicle traffic and preserving mature trees by removing on-street parking



- Pinching the bike lane around passenger zones to single-file width.
- Relocating 72 metered parking spaces from 10th Ave to a PHSA-owned off-street parking lot at Ash St and 10th Ave.
- Car-free space on Heather St north of 10th Ave to reduce traffic, add green space, and improve walking and cycling crossing conditions.

10th Ave (Quebec St to Guelph St)

On average, respondents were supportive of most aspects of the proposed design, especially:

- Adding marked pedestrian crossings at 10th Ave/Prince Edward St.
- Full traffic signals at 10th Ave/Kingsway and Broadway/Prince Edward St.
- Installing new protected bike lanes between Kingsway and Prince Edward St.

The aspect of the proposal that received the most mixed feedback was the proposed tree removals, with only 30% supportive and 38% concerned.

10th Ave (Commercial Dr to Victoria Dr)

On average, respondents were supportive of all aspects of the proposed design, especially:

- A new traffic signal at Victoria St/10th Ave.
- A new formal pick-up/drop-off zone at Commercial-Broadway Station.
- Additional green paint and a traffic diverter at Commercial Dr/10th Ave to reduce turn conflicts.

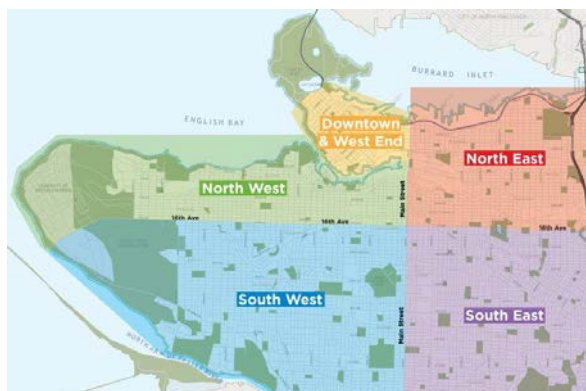
There was mixed support for the permanent removal of the passenger zone and disability parking in front of the East Van Medical Centre, with 55% supportive and 23% concerned.



Who did we hear from?



- 350 people attended four public open houses in November 2016, representing roughly a doubling of the attendance at the previous two open houses.
- 1,349 people completed the feedback form available at the public open houses, online and through Talk Vancouver, which is a 26% increase in the response rate from Phase 2.
- The majority of respondents had a positive consultation experience and indicated that the content presented in Phase 3 was clearer and more understandable compared to Phase 2.
- Those who responded to the Phase 3 feedback form were connected to the 10th Ave Corridor in a similar way to those who responded in Phase 2, although we did hear from more people who lived in the area (45% of respondents vs. 34% of respondents in Phase 2). Respondents indicated they most commonly travel along 10th Ave by cycling (37%), while 33% most commonly drive and 22% most commonly walk. As such, the Phase 3 feedback form results capture a higher percentage of drivers and pedestrians and a smaller percentage of cyclists compared to Phase 2.
- We heard from similar numbers of women (44%) and men (52%). As with the Phase 2 feedback form, most were adults, with youth and young adults under 30 being underrepresented at only 10% of the survey sample. However, we had the best response rate from seniors in Phase 3, with 28% of respondents being 60 and older.
- The distribution of respondents across the city was similar to Phase 2, with the greatest proportions of respondents living in the Northwest (25%) and Northeast (25%).





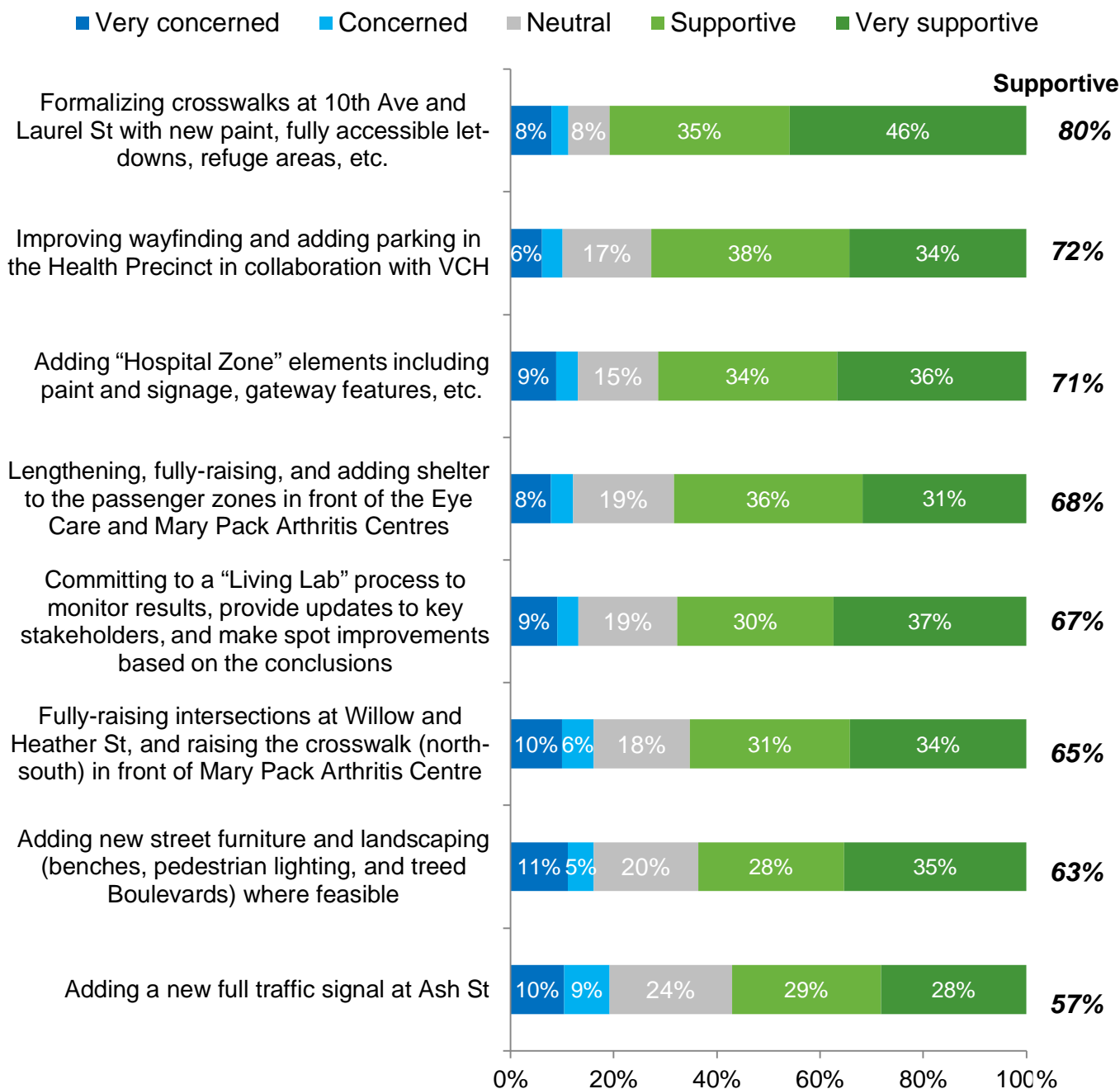
DETAILED FEEDBACK FORM RESULTS



OAK ST TO CAMBIE ST (10TH AVE HEALTH PRECINCT)

Attitudes toward Elements of Oak St to Cambie St Recommended Design

APPENDIX H
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Base: All respondents who selected Health Precinct Topic (n = 1148)

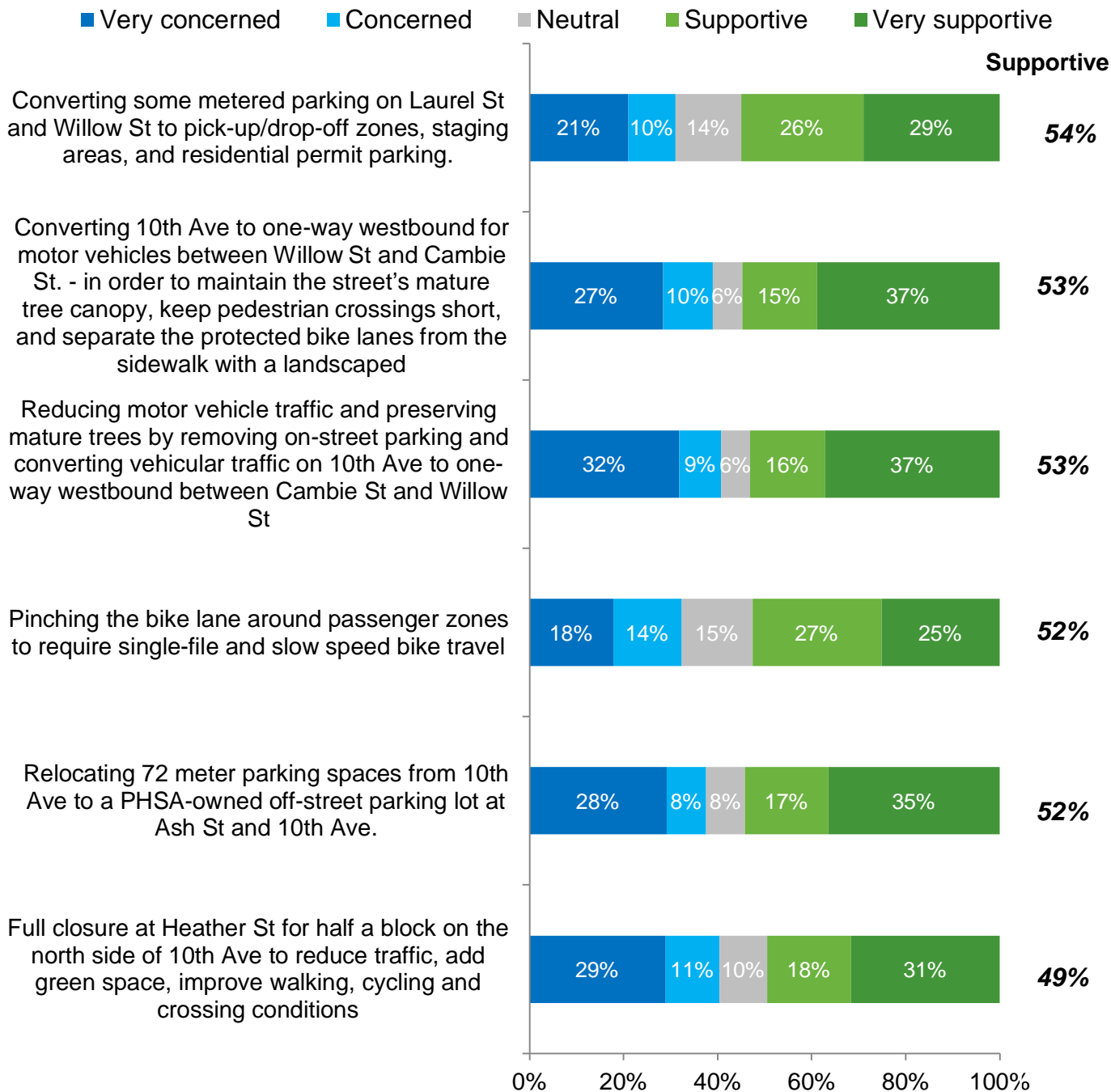
How do you feel about these following elements of the 10th Ave Health Precinct recommended design?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)



Attitudes toward Elements of Oak St to Cambie St Recommended Design

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Base: All respondents who selected Health Precinct Topic (n = 1148)

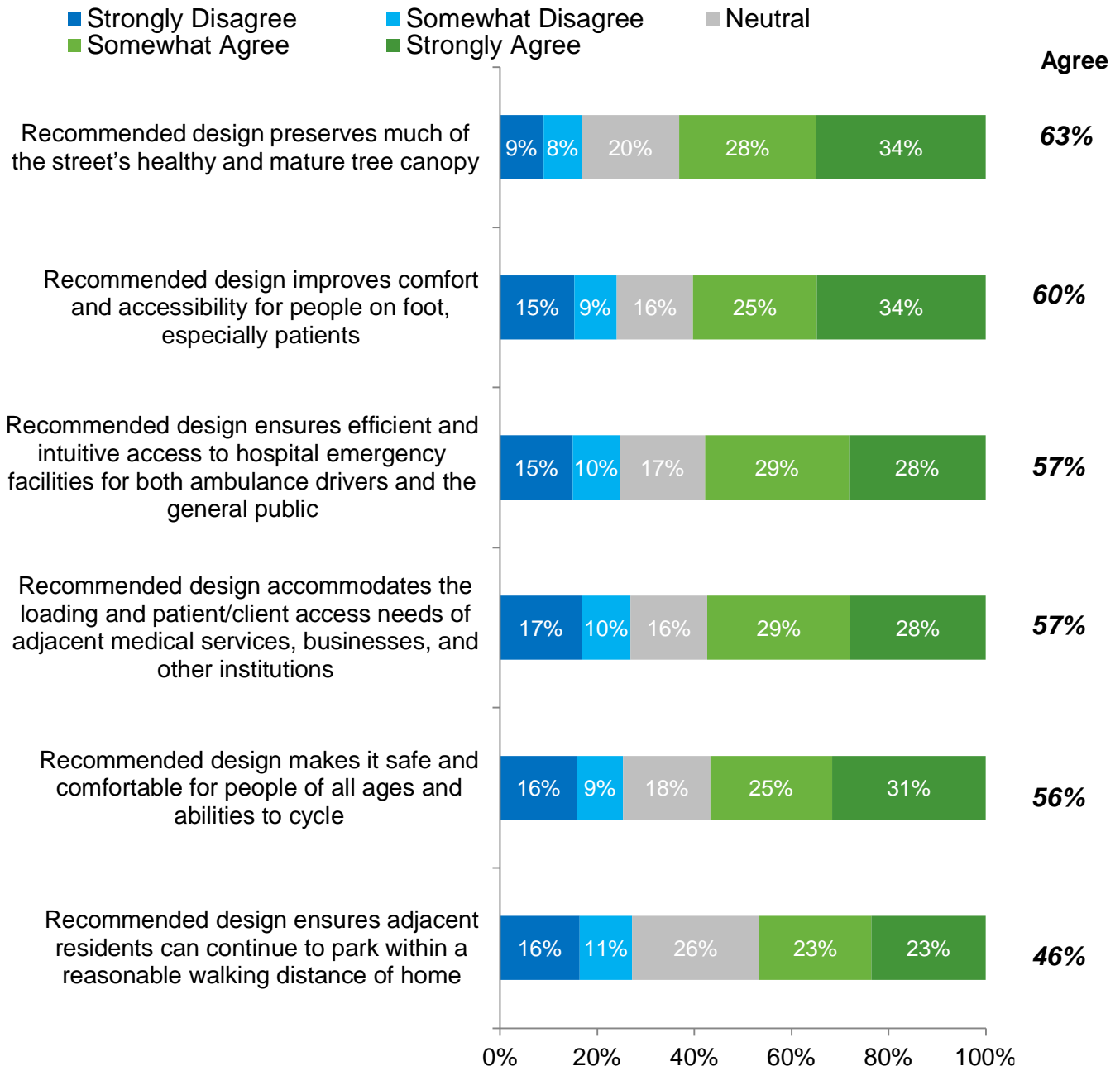
And how do you feel about these following elements of the 10th Ave Health Precinct recommended design?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)



Perceptions of Elements of Oak St. to Cambie St. Designs Meeting Project Objectives

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Base: All respondents who selected Health Precinct Topic (n = 1148)

How do you feel the recommended design meets the project objectives for the Health Precinct?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)

General Comments – Oak St. to Cambie St. Recommended Design

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The following are some examples of the general comments provided by respondents about the recommended design for the 10th Avenue Health Precinct.

Ensuring adequate, close and affordable parking for adjacent medical buildings is extremely important.

Clear marking of off-street parking is essential.

Making access to ER safe, well marked, and easy for pick up and drop off is very important.

Improved lighting, especially around pedestrian/cyclist pinch points would be necessary.

Would like to see more rain protection at seating areas (back and side cover in addition to the current canopy). Sometimes people have to wait in inclement weather whilst the caregiver fetches the car.

Please consider actual yield signs at crosswalks and at patient drop off / waiting areas.

I very much like the “Health Campus” concept. I think it would be a great way to add a sense of community to the area, as well as helping capture the right “feeling” for traffic passing through.

Base: All respondents who selected Oak St. to Cambie Street topic and provided comments (n=597)

Do you have any additional comments about the recommended design for the 10th Ave Health Precinct?

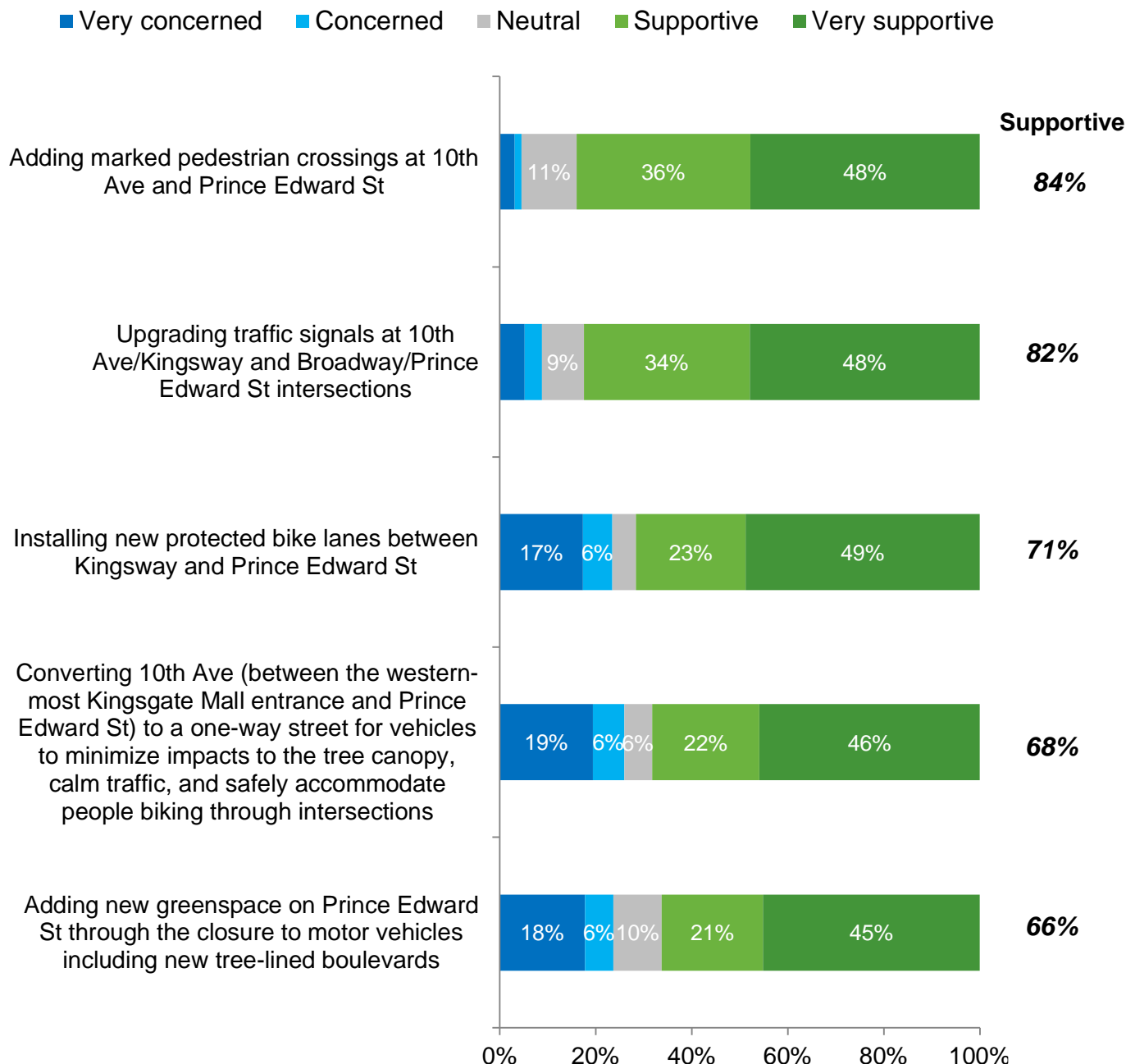


QUEBEC ST TO GUELPH ST (NEAR KINGSGATE MALL)



Attitudes toward Elements of Quebec St to Guelph St Proposed Design

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Base: All respondents who selected the Quebec St. to Guelph St. Topic (n = 727)

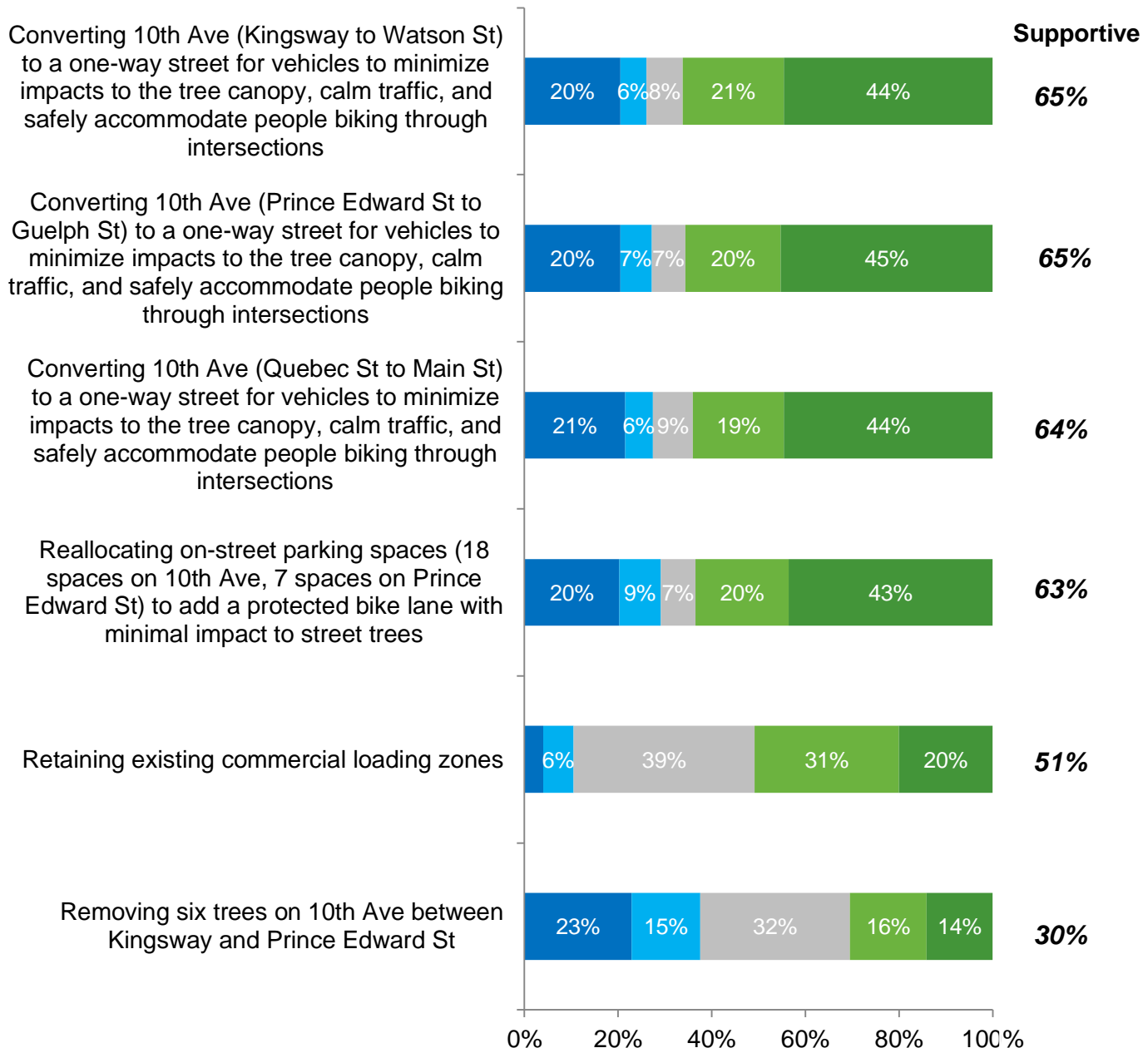
How do you feel about these following elements of the proposed design between Quebec St. to Guelph St.?

Attitudes toward Elements of Quebec St to Guelph St Proposed Design

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■ Very concerned ■ Concerned ■ Neutral ■ Supportive ■ Very supportive



Base: All respondents who selected the Guelph St. to Quebec St. topic (n=727)

And how do you feel about these following elements of the Guelph St. to Quebec St....design?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)

General Comments: Quebec St. to Guelph St. Recommended Design

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The following are some examples of the general comments provided by respondents about the segment between Quebec St and Guelph St.

Right of way needs to be clearly indicated at the proposed elevated westbound bike lane cross-over.

I am especially thrilled by the replacement of the pedestrian-controlled intersections with full traffic lights.

I think it would be safer to move the loading zones because the trucks block the bikes from going through when they are trying to back in.

My only concern is accessing the Buy-Low parking lot for a vehicle travelling westbound on Broadway.

The 10th Ave “jog” is very confusing for bikers, having a clearly painted track or protected bikeway to intuitively guide bikers would help a lot.

It would be helpful to discourage through traffic and make it safer for pedestrians and cyclists.

Love the idea of closing off part of the street to make greenspace. With density rising, these sorts of mini parks are very important!

Base: All respondents who selected the Quebec St. to Guelph St. topic and provided comments (n=269)

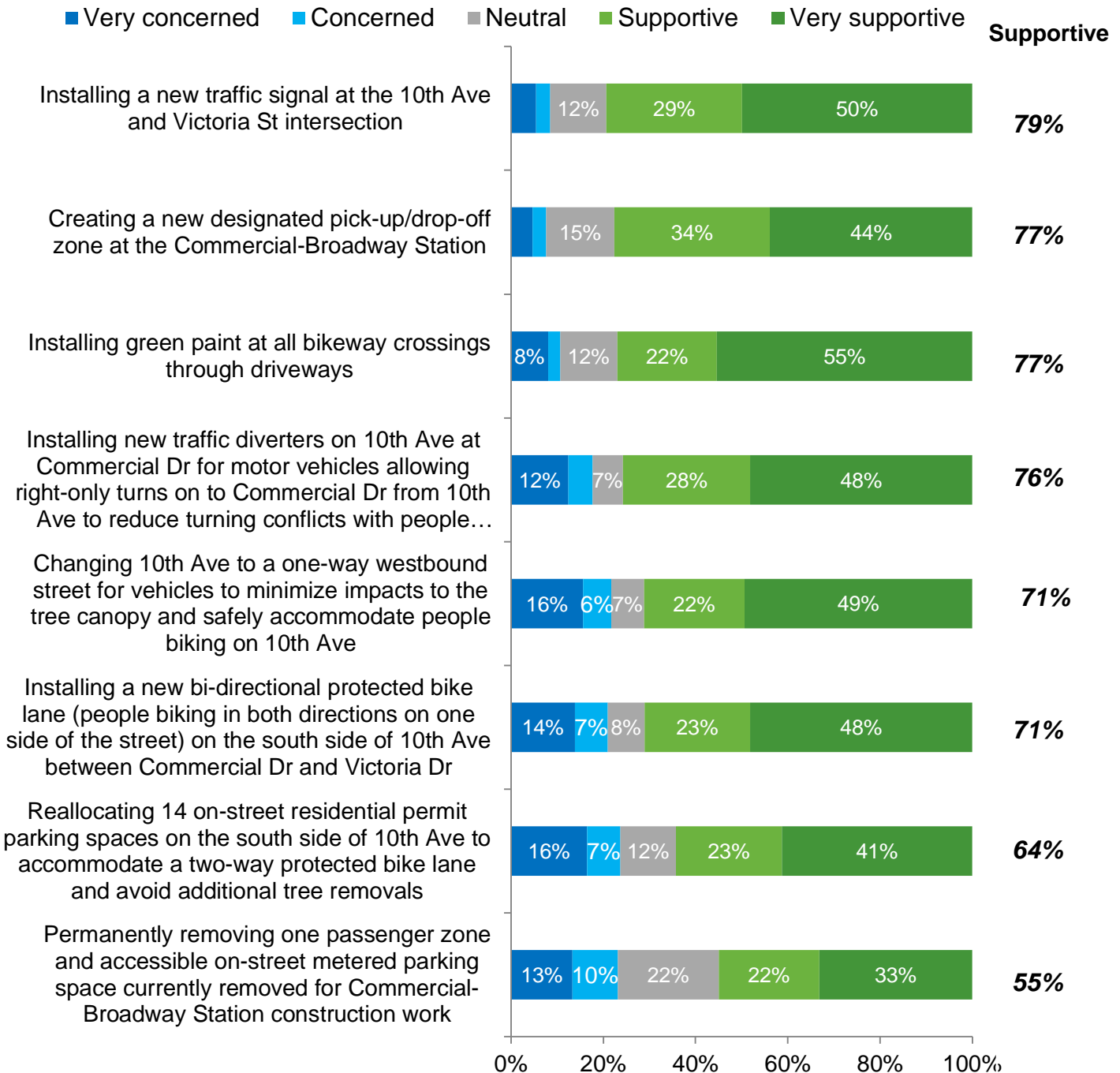
Do you have any additional comments on the proposed design for Quebec St to Guelph St segment?



COMMERCIAL DR TO VICTORIA DR

Attitudes toward Elements of Commercial Dr to Victoria Dr Proposed Interim Design

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Base: All respondents who selected the Commercial Dr. to Victoria Dr. topic (n = 668)

How do you feel about these following elements of the proposed design between Commercial Dr. to Victoria Dr.?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)



General Comments: Commercial Dr to Victoria Dr Proposed Interim Design

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The following are some examples of the general comments provided by respondents about the segment between Commercial Dr and Victoria Dr.

Since I often bike with kids, I really appreciate having safe bike routes with safe interaction zones.

I'd prefer to close this strip of 10th to cars.

Good signage essential here, along with more education for cyclists and drivers.

A traffic signal at Victoria Dr and 10th Ave would go a long way to making the intersection feel safe for everyone.

I hope a more robust complete street design can be implemented in the long term with better prioritization of walking/cycling/green space.

Green paint and improved signaling is very much required at 10th and Commercial.

I would be more supportive of a cul-de-sac for cars along 10th Ave at Commercial St (both directions).

Base: All respondents who selected the Commercial Dr. to Victoria Dr. topic and provided comments (n = 668)

Do you have any additional comments on the proposed design for Commercial Dr. to Victoria Dr. segment?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)



Overall Comments: 10th Avenue Corridor Project

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The following are some examples of the overall comments provided by respondents about the 10th Ave Corridor Project.

Clear and visible signage will be a very important part of the proposed changes.

Education for all users of the roadways should be provided.

I appreciate you realizing it is difficult and not realistic to re-route the 10th Ave bike trail, which has been here for many years and is highly used year round.

These are great ideas, and I look forward to using 10th Ave as a pedestrian + cyclist when they are in place.

I really like the idea of decreasing the on street parking. Drop off zones like they have in front of the Diamond Health Centre are excellent.

Improving street lighting would improve visibility of cyclists and pedestrians.

I agree that there needs to be a redesign as it is nerve-racking driving along, having bikes without a designated lane. My observations is that things get further complicated by drivers looking, waiting for meters.

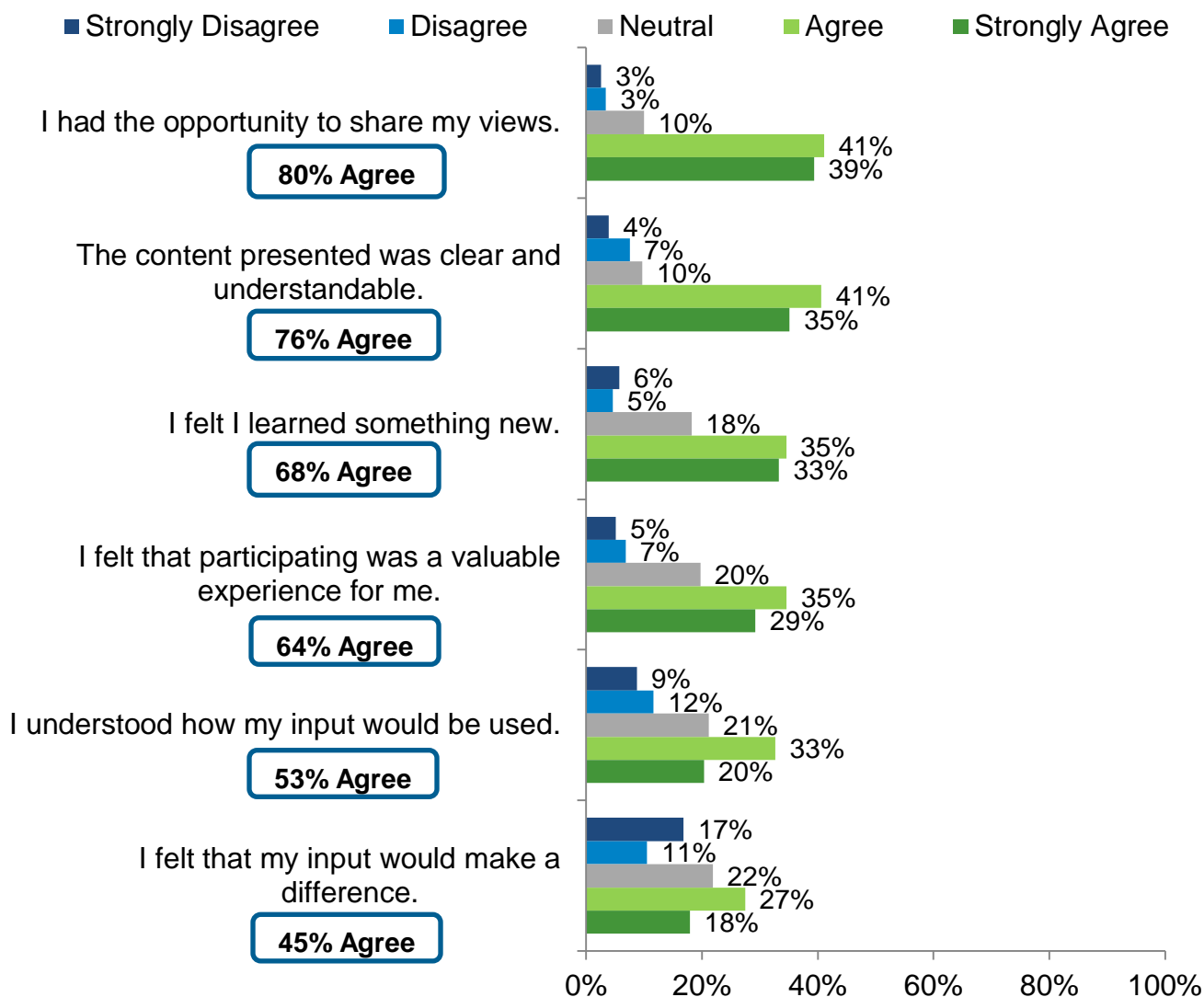
Base: All respondents who provided comments (n = 418)

Do you have any additional comments that you would like to provide on the project?

10th Ave. Corridor Planning Project - Preliminary Designs Consultation Summary (Jan 2017)



Phase 3 Consultation Experience



Base: All Respondents (n = 1349)

Thinking about your experience with the 10th Ave Corridor consultation to date, how much do you agree or disagree with the following?

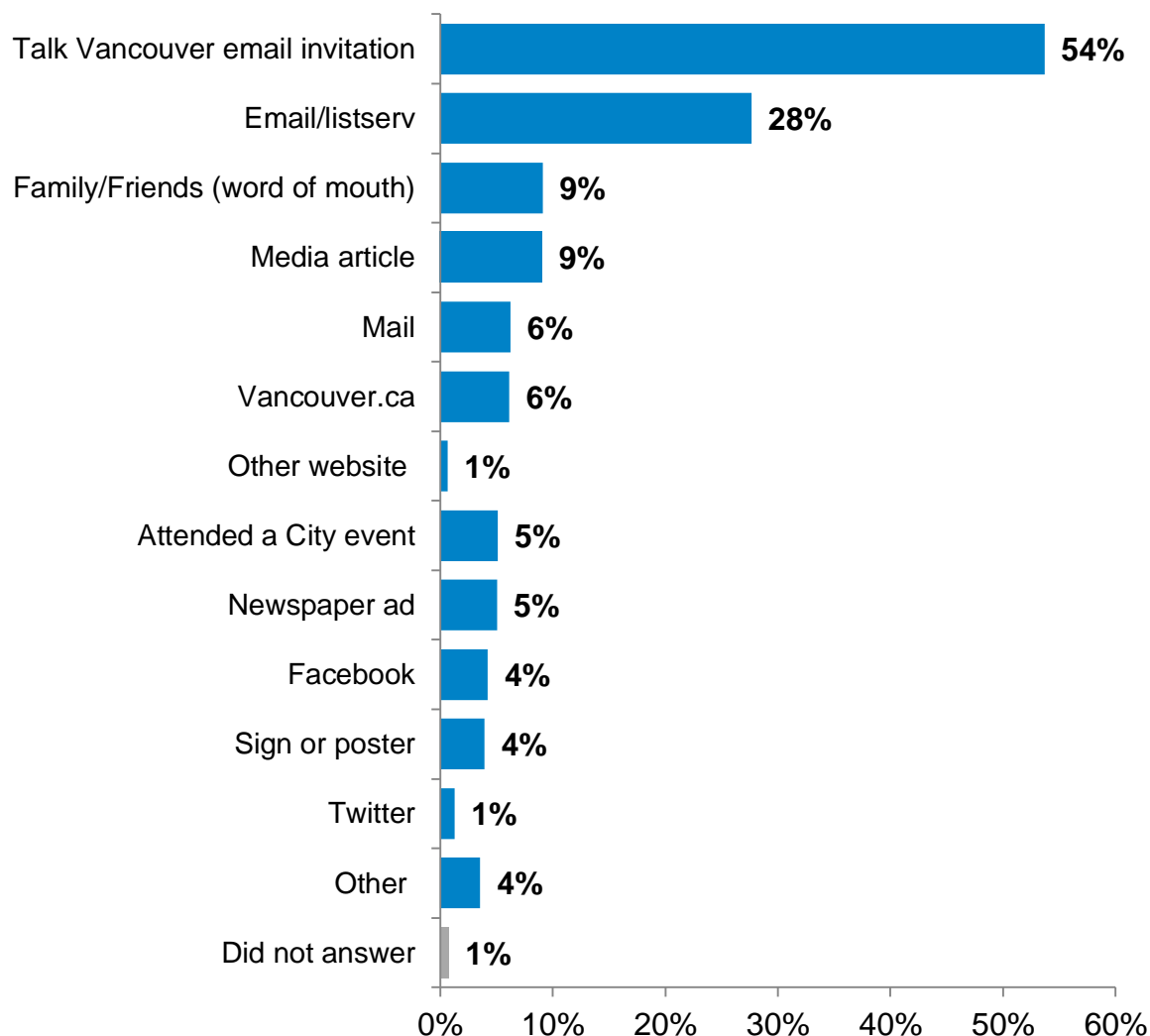


Consultation Experience	Phase 2 Consultation	Phase 3 Consultation
I had the opportunity to share my views	80%	80%
The content presented was clear and understandable.	62%	76%
I felt I learned something new.	-	68%
I felt that participating was a valuable experience for me.	62%	64%
I understood how my input would be used.	49%	53%
I felt that my input would be make a difference.	43%	45%
Number of respondents	1068	1349



Source of Information about Project Consultation

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Base: All Respondents (n = 1349)

How did you find out about the 10th Avenue Corridor Questionnaire?



Source of Information about Project Consultation

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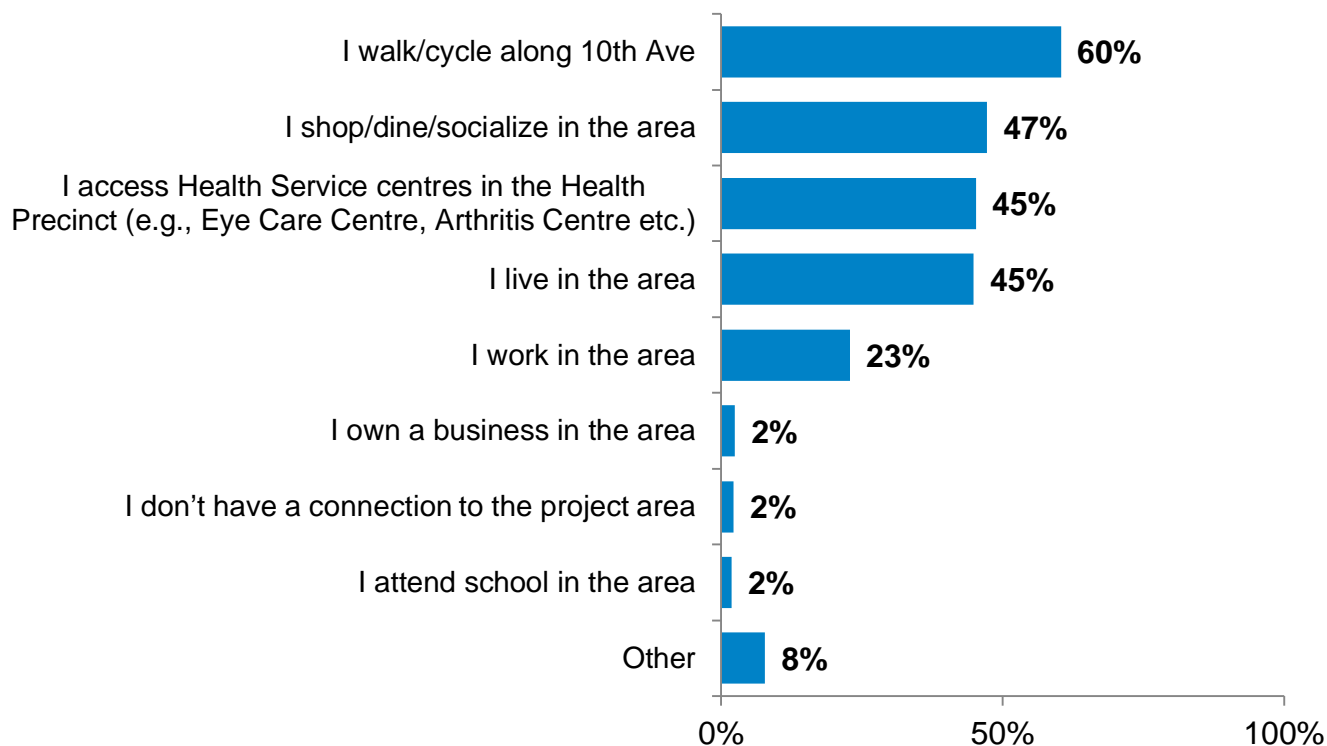
Source of Information about Project Consultation	Phase 2 Consultation	Phase 3 Consultation
Talk Vancouver email invitation	47%	54%
Email / Listserv	25%	28%
Family / Friends	6%	9%
Media article	-	9%
Mail	3%	6%
Vancouver.ca	6%	6%
Other website	6%	1%
Attended a city event	4%	5%
Newspaper ad	3%	5%
Facebook	4%	4%
Sign or poster	1%	4%
Twitter	2%	1%
Other	7%	4%
Did not answer	1%	1%
Number of respondents	1068	1349



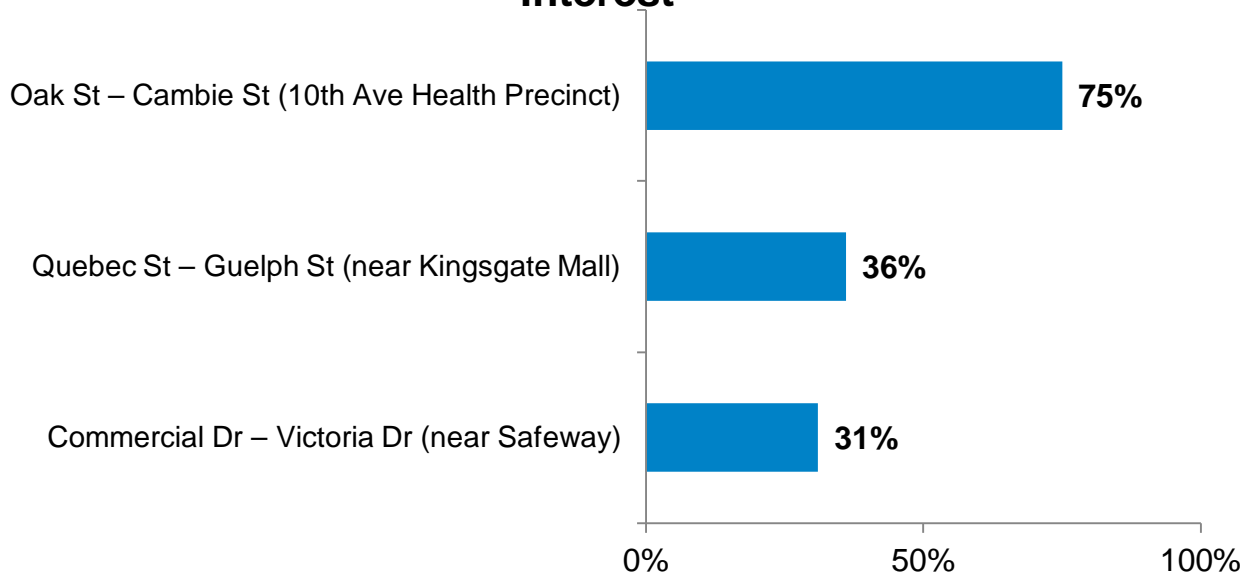
DEMOGRAPHICS



Phase 3 Consultation



Segment of 10th Ave of Greatest Personal Impact and Interest





Connection to 10th Ave

Phase 1, 2 and 3 Comparison

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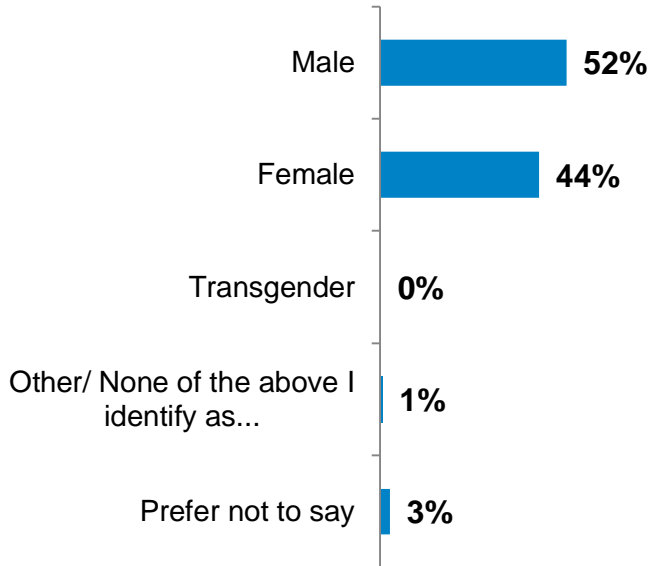


Connection to 10th Ave	Phase 1 Consultation	Phase 2 Consultation	Phase 3 Consultation
I walk/cycle along 10 th Ave	-	66%	60%
I commute on 10 th Ave	52%	-	-
I shop/dine/socialize in the area	41%	44%	47%
I access health service centres in the Health Precinct	-	43%	45%
I live / rent in the area	26%	34%	45%
I work in the area	25%	22%	23%
I own a business in the area	-	2%	2%
I don't have a connection to the project area	6%	4%	2%
I attend school in the area	3%	1%	2%
Other	13%	6%	8%
Number of respondents	1789	1067	1349

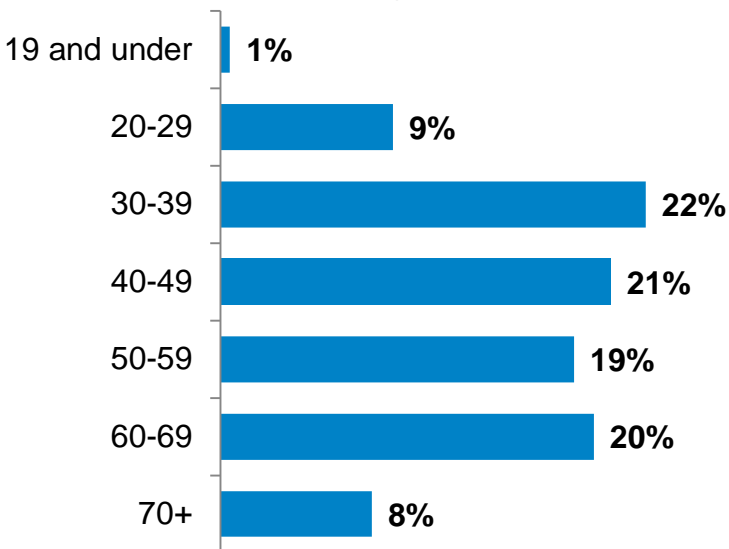


Phase 3 Consultation

Gender

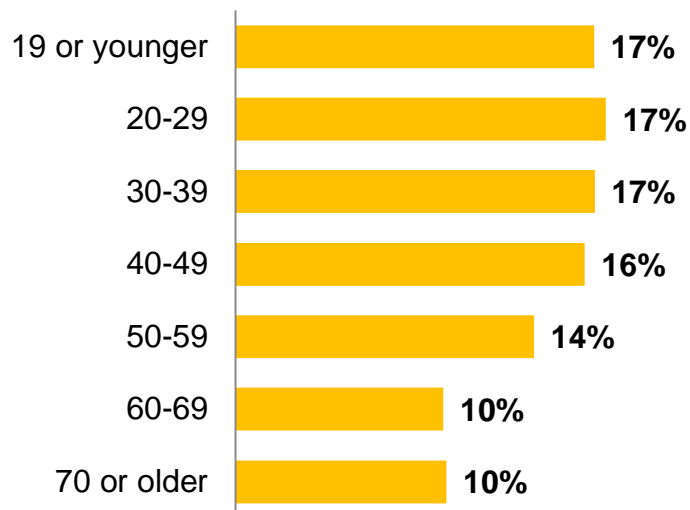


Age



City of Vancouver Census (2011)

Age



Base: All respondents (n=1349)



Gender and Age Phase 1, 2 and 3 Comparison

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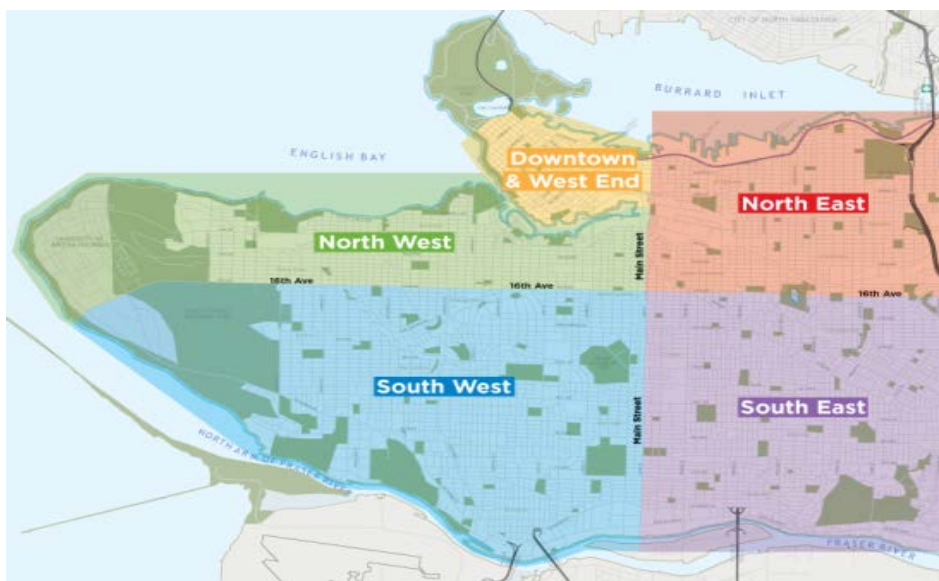
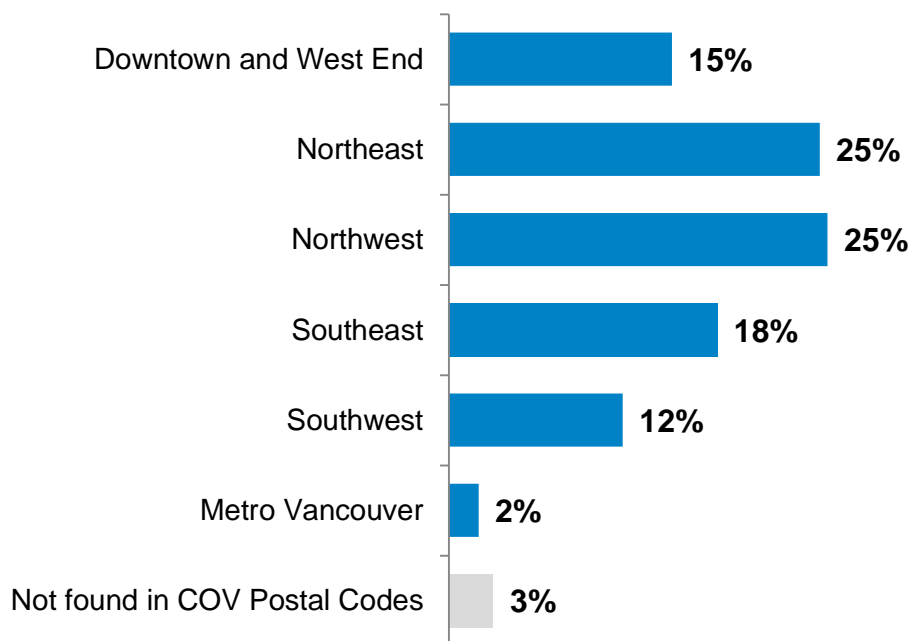


Gender	Phase 1 Consultation	Phase 2 Consultation	Phase 3 Consultation
Male	49%	51%	52%
Female	47%	45%	44%
Transgender	0%	0%	0%
Other	0%	0%	1%
Prefer not to say	3%	3%	3%
Number of respondents	1789	1067	1349

Age	Phase 1 Consultation	Phase 2 Consultation	Phase 3 Consultation
19 and under	1%	0%	1%
20-29	15%	11%	9%
30-39	30%	25%	22%
40-49	21%	20%	21%
50-59	17%	20%	19%
60-69	13%	14%	20%
70+	3%	6%	8%
Did not answer	0%	4%	0%
Number of respondents	1789	1067	1349



Residential Zone



Base: All respondents (n=1349)

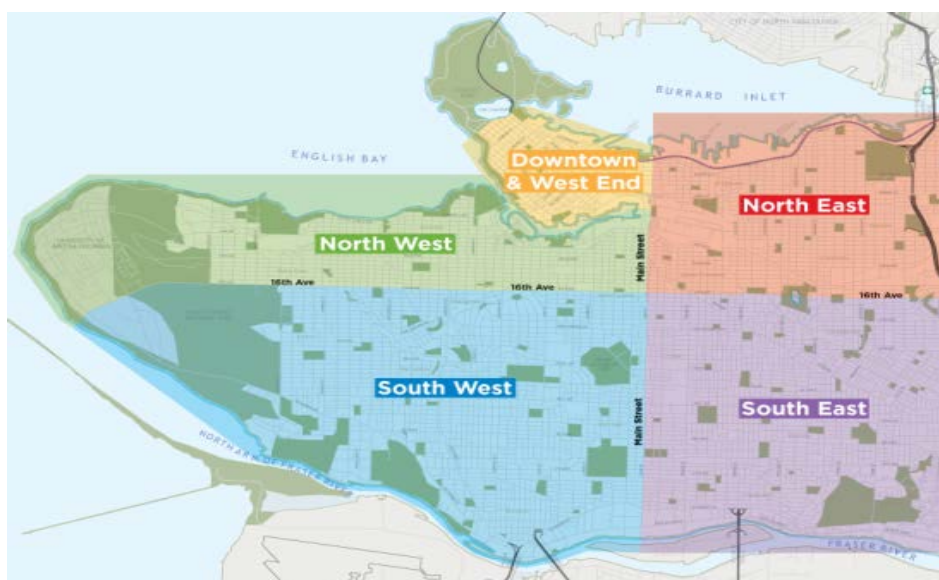


Residential Zone Phase 1, 2 and 3 Comparison

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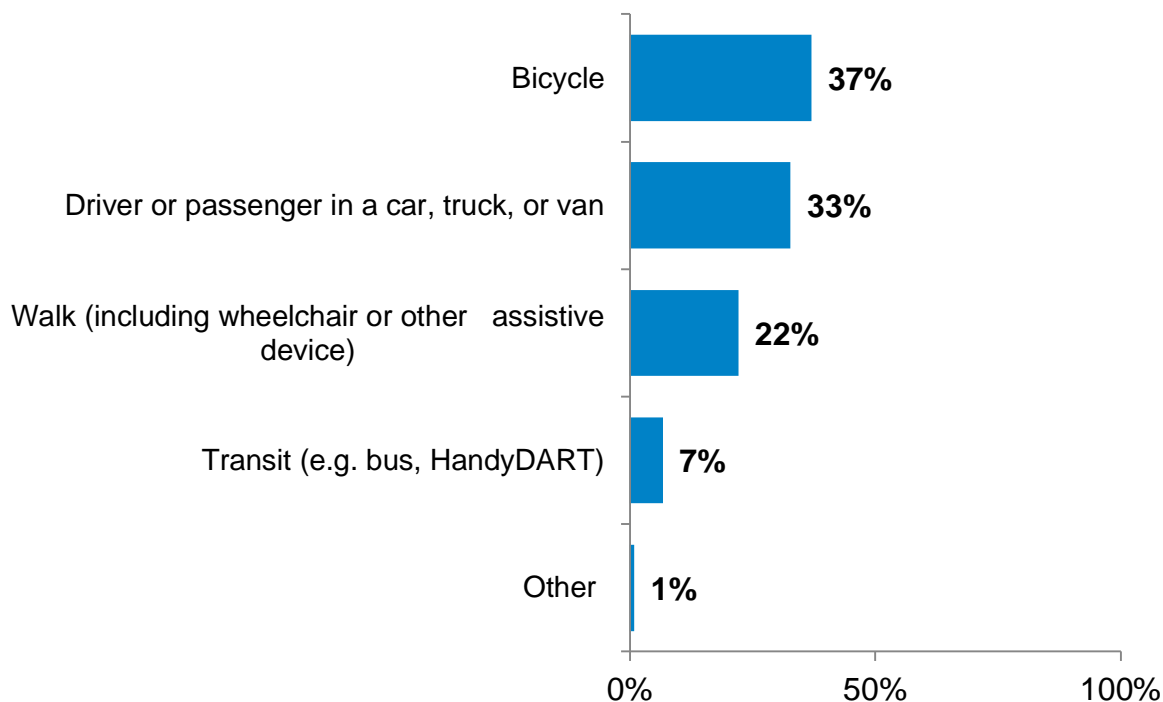


Residential Zone	Phase 1 Consultation	Phase 2 Consultation	Phase 3 Consultation
Downtown and West End	9%	15%	15%
Northeast	25%	25%	25%
Northwest	32%	27%	25%
Southeast	17%	15%	18%
Southwest	8%	11%	12%
Not found in COV Postal Code	7%	5%	3%
Number of respondents	1789	1067	1349

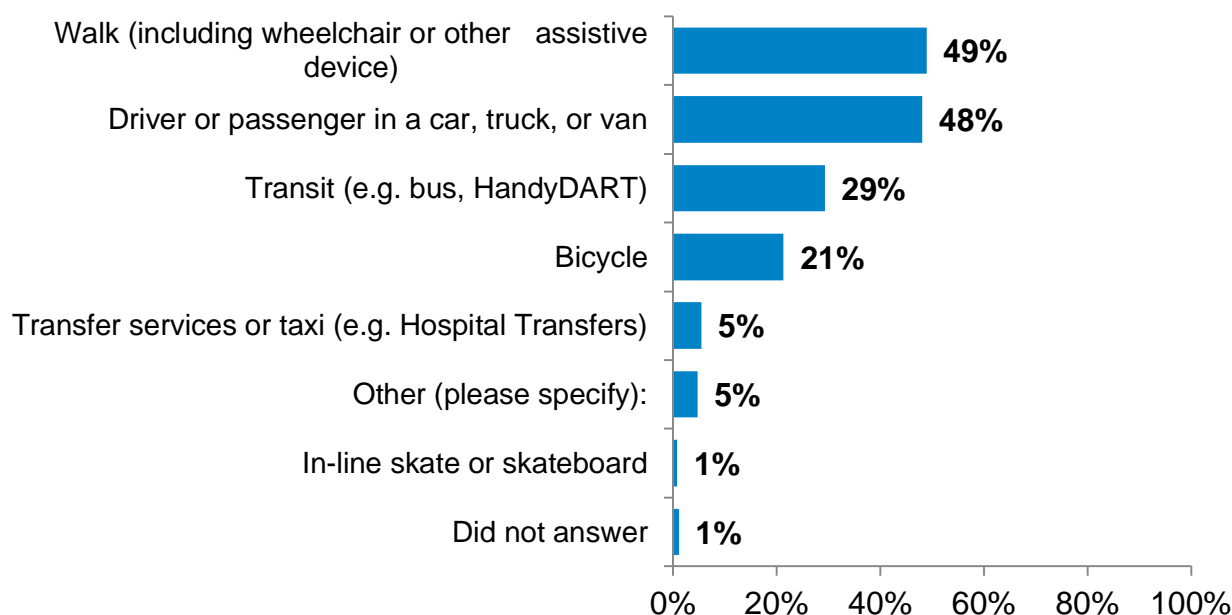




Primary Mode of Transportation



Other Modes of Transportation





Modes of Transportation Phase 2 and 3 Comparison

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Primary Mode of Transportation	Phase 2 Consultation	Phase 3 Consultation
Bicycle	44%	37%
Driver or passenger in a car, truck or van	28%	33%
Walk (including wheelchair or other assistive device)	18%	22%
Transit (e.g bus, HandyDART)	8%	7%
Other	1%	1%
Number of respondents	1067	1349

Other Modes of Transportation	Phase 2 Consultation	Phase 3 Consultation
Walk (including wheelchair or other assistive decide)	42%	49%
Driver or passenger in a car, truck or van	38%	48%
Transit (e.g. bus, HandyDART)	33%	29%
Bicycle	21%	21%
Transfer services or taxi	4%	5%
Other	2%	5%
In-line skate or skateboard	1%	1%
Number of respondents	1068	1349



PHASE 3 CONSULTATION FEEDBACK FORM



10th Ave Corridor Phase 3 Open Houses
Feedback Questionnaire
November 2016

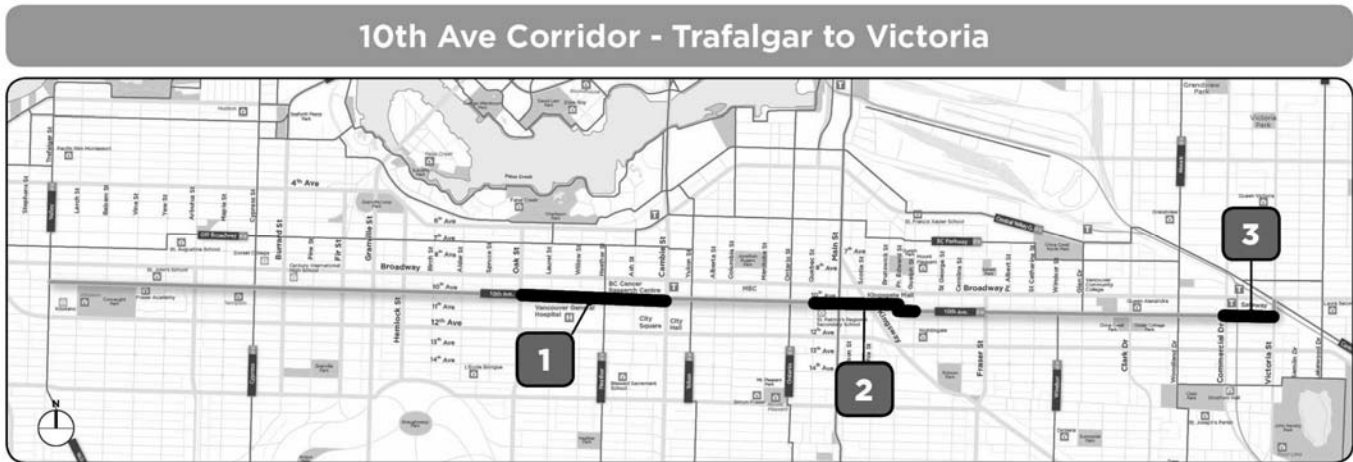
Please provide your postal code:

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We want to hear from you!

The City of Vancouver is planning to improve the 10th Ave Corridor (10th Ave between Trafalgar St and Victoria St) to make it safer and more comfortable for people of all ages and abilities to walk and cycle while accommodating motor vehicle access. Since the summer of 2015, City staff have been engaging stakeholders, residents, Health Precinct service providers, and the general public about improvements to the 10th Ave bike route.

Building on what we heard from you at events in October 2015 and April 2016, we are focusing on 3 key areas of the 10th Ave Corridor with relatively high traffic volumes and collision rates, which have frequently been identified by the public as uncomfortable for walking or biking.



- 1) 10th Ave Health Precinct: Oak St to Cambie St (Recommended Design)
- 2) 10th Ave: Quebec St to Guelph St (Proposed Design)
- 3) 10th Ave: Commercial Dr to Victoria Dr (Proposed Design)

Please take the time to review the 10th Ave Corridor material for each segment and answer the following questionnaire. Your feedback will be considered along with stakeholder feedback in order to inform the final recommended designs to be presented to Council in early 2017.

Share your feedback

Please place the form in the drop box here today or through any of the following methods:

- Email: 10thavenue@vancouver.ca

Mail: City of Vancouver
Attention: Transportation Planning
Engineering Services
320-507 W Broadway, Vancouver, BC V5Z 0B4
- Complete online: vancouver.ca/10th-avenue

Drop off at: City Hall brass box
453 W 12th Avenue, Vancouver
Attention: Transportation Planning
Engineering Services

Submit comments by December 12th, 2016

Tell us a little about yourself

It is important to us that we hear from a diversity of people. The following questions help us to determine how the feedback we receive represents the community. Individual responses are treated as anonymous.

Which segment of proposed changes interest and affect you the most? *Select all that apply.*

- ☐ Oak St - Cambie St (10th Ave Health Precinct)
- ☐ Quebec St - Guelph St (near Kingsgate Mall)
- ☐ Commercial Dr - Victoria Dr (near Safeway)

What is your connection to the 10th Ave Corridor? *Select all that apply.*

- | | |
|--|---|
| <input type="radio"/> I live in the area | <input type="radio"/> I attend school in the area |
| <input type="radio"/> I work in the area | <input type="radio"/> I shop/dine/socialize in the area |
| <input type="radio"/> I own a business in the area | <input type="radio"/> I walk/cycle along 10 th Ave |
| <input type="radio"/> I access Health Service centres in the Health Precinct (e.g., Eye Care Centre, Arthritis Centre, Vancouver General Hospital) | <input type="radio"/> I don't have a connection to the project area |
| | <input type="radio"/> Other (please specify): _____ |

What mode of transportation do you most often use to access the 10th Ave Corridor? *Select one.*

- | | |
|---|---|
| <input type="radio"/> Walk (including wheelchair or other assistive device) | <input type="radio"/> Transfer services or taxi (e.g. Hospital Transfers) |
| <input type="radio"/> Bicycle | <input type="radio"/> Driver or passenger in a car, truck, or van |
| <input type="radio"/> In-line skate or skateboard | <input type="radio"/> Other (please specify): _____ |
| <input type="radio"/> Transit (e.g. bus, HandyDART) | |

What other modes of transportation do you use to access the 10th Ave Corridor? *Select all that apply.*

- | | |
|---|---|
| <input type="radio"/> Walk (including wheelchair or other assistive device) | <input type="radio"/> Transfer services or taxi (e.g. Hospital Transfers) |
| <input type="radio"/> Bicycle | <input type="radio"/> Driver or passenger in a car, truck, or van |
| <input type="radio"/> In-line skate or skateboard | <input type="radio"/> I don't use any other modes of travel |
| <input type="radio"/> Transit (e.g. bus, HandyDART) | <input type="radio"/> Other (please specify): _____ |

How did you find out about the 10th Ave Corridor Open House events? *Select all that apply.*

- | | |
|---|---|
| <input type="radio"/> Attended a City event | <input type="radio"/> Media article |
| <input type="radio"/> Mail | <input type="radio"/> Sign or poster |
| <input type="radio"/> E-mail/Listserve | <input type="radio"/> Facebook |
| <input type="radio"/> Talk Vancouver | <input type="radio"/> Twitter |
| <input type="radio"/> Newspaper ad | <input type="radio"/> Family/Friend (word of mouth) |
| <input type="radio"/> Vancouver.ca | <input type="radio"/> Don't know |
| <input type="radio"/> Other Website (please specify): _____ | <input type="radio"/> Other (please specify): _____ |

Do you primarily identify as?

- ☐ Male
- ☐ Female
- ☐ Transgender
- ☐ None of the above. I identify as _____
- ☐ Prefer not to answer

What age category do you fall in?

- | | |
|---------------------------------------|--|
| <input type="radio"/> 19 yrs or under | <input type="radio"/> 50-59 yrs |
| <input type="radio"/> 20-29 yrs | <input type="radio"/> 60-69 yrs |
| <input type="radio"/> 30-39 yrs | <input type="radio"/> 70 yrs or over |
| <input type="radio"/> 40-49 yrs | <input type="radio"/> Prefer not to answer |

Please provide feedback on one or all of the segments that you are most interested in.

10th Avenue Health Precinct (Recommended Design)
Quebec St to Guelph St (Proposed Design)
Commercial Dr to Victoria Dr (Proposed design)

10th Ave Health Precinct (Recommended Design)
(10th Ave between Oak St and Cambie St)

Please review the 10th Ave Health Precinct materials (PURPLE BOARDS) and answer the following questions.

1. How do you feel about the following elements of the 10th Ave Health Precinct recommended design?
See boards #1a, #1b, #2 and #3.

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Adding “Hospital Zone” elements including paint and signage, gateway features, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lengthening, fully-raising, and adding shelter to the passenger zones in front of the Eye Care and Mary Pack Arthritis Centres	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converting some metered parking on Laurel St and Willow St to pick-up/drop-off zones, staging areas, and residential permit parking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formalizing crosswalks at 10 th Ave and Laurel St with new paint, fully accessible let-downs, refuge areas, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fully-raising intersections at Willow and Heather St, and raising the crosswalk (north-south) in front of Mary Pack Arthritis Centre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adding a new full traffic signal at Ash St	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pinching the bike lane around passenger zones to require single-file and slow speed bike travel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving wayfinding and adding parking in the Health Precinct in collaboration with VCH	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Full closure at Heather St for half a block on the north side of 10 th Ave to reduce traffic, add green space, improve walking, cycling and crossing conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adding new street furniture and landscaping (benches, pedestrian lighting, and treed Boulevards) where feasible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Committing to a “Living Lab” process to monitor results, provide updates to key stakeholders, and make spot improvements based on the conclusions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing motor vehicle traffic and preserving mature trees by removing on-street parking and converting vehicular traffic on 10 th Ave to one-way westbound between Cambie St and Willow St	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How do you feel the recommended design meets the project objectives for the Health Precinct?

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Recommended design ensures efficient and intuitive access to hospital emergency facilities for both ambulance drivers and the general public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommended design accommodates the loading and patient/client access needs of adjacent medical services, businesses, and other institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommended design improves comfort and accessibility for people on foot, especially patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommended design makes it safe and comfortable for people of all ages and abilities to cycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommended design preserves much of the street's healthy and mature tree canopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommended design ensures adjacent residents can continue to park within a reasonable walking distance of home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Do you have any additional comments about the recommended design for the 10th Ave Health Precinct?

Quebec St to Guelph St (Proposed Design)

- The key objectives for changes to the 10th Ave bike route between Quebec St and Guelph St are:
- Upgrade 10th Ave so that it is safe and comfortable for people of all ages and abilities
 - Improve comfort and accessibility for people on foot
 - Accommodate the loading and access needs of adjacent businesses
 - Preserve as much of the street’s healthy and mature tree canopy as possible
 - Ensure adjacent residents can continue to park within a reasonable walking distance of home

Please review the Quebec St to Guelph St materials (ORANGE BOARDS) and answer the following questions.

4. How do you feel about the following elements of the proposed design between Quebec St to Guelph St? See board #4.

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Installing new protected bike lanes between Kingsway and Prince Edward St	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upgrading traffic signals at 10 th Ave/Kingsway and Broadway/Prince Edward St intersections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adding marked pedestrian crossings at 10 th Ave and Prince Edward St	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converting 10 th Ave (between the western-most Kingsgate Mall entrance and Prince Edward St) to a one-way street for vehicles to minimize impacts to the tree canopy, calm traffic, and safely accommodate people biking through intersections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converting 10 th Ave (Kingsway to Watson St) to a one-way street for vehicles to minimize impacts to the tree canopy, calm traffic, and safely accommodate people biking through intersections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converting 10 th Ave (Quebec St to Main St) to a one-way street for vehicles to minimize impacts to the tree canopy, calm traffic, and safely accommodate people biking through intersections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converting 10 th Ave (Prince Edward St to Guelph St) to a one-way street for vehicles to minimize impacts to the tree canopy, calm traffic, and safely accommodate people biking through intersections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reallocating on-street parking spaces (18 spaces on 10 th Ave, 7 spaces on Prince Edward St) to add a protected bike lane with minimal impact to street trees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adding new greenspace on Prince Edward St through the closure to motor vehicles including new tree-lined boulevards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Removing six trees on 10 th Ave between Kingsway and Prince Edward St	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retaining existing commercial loading zones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Do you have any additional comments on the proposed design for Quebec St to Guelph St segment?

Commercial Dr to Victoria Dr (Proposed Design)

- The key objectives for interim changes to the 10th Ave Bike Route between Commercial Dr and Victoria Dr are:
- Improve comfort and accessibility for people on foot
 - Upgrade the 10th Ave so that it is safe and comfortable for people of all ages and abilities
 - Accommodate the loading and access needs of adjacent businesses, health services, and the Commercial-Broadway SkyTrain station
 - Preserve as much of the street’s healthy and mature tree canopy as possible
 - Ensure adjacent residents can continue to park within a reasonable walking distance of home

Please review the Commercial Dr to Victoria Dr materials (RED BOARDS) and answer the following questions.

6. How do you feel about the following elements of the proposed design between Commercial Dr to Victoria Dr? See board #5.

	Very Concerned	Concerned	Neutral	Supportive	Very Supportive
Installing a new bi-directional protected bike lane (people biking in both directions on one side of the street) on the south side of 10 th Ave between Commercial Dr and Victoria Dr	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changing 10 th Ave to a one-way westbound street for vehicles to minimize impacts to the tree canopy and safely accommodate people biking on 10 th Ave	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating a new designated pick-up/drop-off zone at the Commercial-Broadway Station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Installing new traffic diverters on 10 th Ave at Commercial Dr for motor vehicles allowing right-only turns on to Commercial Dr from 10 th Ave to reduce turning conflicts with people walking and biking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Installing a new traffic signal at the 10 th Ave and Victoria St intersection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reallocating 14 on-street residential permit parking spaces on the south side of 10 th Ave to accommodate a two-way protected bike lane and avoid additional tree removals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Permanently removing one passenger zone and accessible on-street metered parking space currently removed for Commercial-Broadway Station construction work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Installing green paint at all bikeway crossings through driveways	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Do you have any additional comments on the proposed design for Commercial Dr to Victoria Dr segment?

Additional Comments

8. Do you have any additional comments that you would like to provide on the project?

9. Reflecting on your experience with the consultation for the 10th Ave Corridor project, how would you rate the following?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The information presented was clear and understandable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understood how my input would be used	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that my input would make a difference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that participating was a valuable experience for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had the opportunity to share my views	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I learned something new	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10th Avenue Corridor Email List

☐ Yes, I would like to receive updates on the 10th Avenue Corridor Project (10th Ave from Trafalgar Street to Victoria Drive)

Name: _____ Email: _____

By providing your contact information above, you are subscribing to an email list regarding 10th Avenue Corridor project. You acknowledge that you can unsubscribe at any time by emailing 10thavenue@vancouver.ca with “unsubscribe 10th Avenue Corridor” in the subject line.

THANK YOU