

ADMINISTRATIVE REPORT

Report Date: June 12, 2018
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RTS No.: 12432 VanRIMS No.: 08-2000-20 Meeting Date: July 11, 2018

TO: Standing Committee on City Finance and Services

FROM: General Manager of Engineering Services

SUBJECT: Arbutus Greenway: Design Vision and Implementation Strategy

RECOMMENDATIONS

- A. THAT Council endorse in principle the design vision for the Arbutus Greenway as described in this report, including the northward and southward extensions of the greenway, and direct staff to finalize the Arbutus Greenway Master Plan.
- B. THAT Council endorse the implementation strategy for the Arbutus Greenway, as described in this report, including the following elements:
 - i. Development of detailed design for the first phase of implementation of character zones within the purchased corridor;
 - ii. Further development of designs for the preferred northward and southward greenway extensions, in collaboration with Musqueam, Squamish, and Tsleil-Waututh First Nations and in consultation with the public and stakeholders;
 - iii. Design and construction of an all-ages-and-abilities walking, wheeling, and cycling pathway connecting the Arbutus Greenway at Milton Street to the Fraser River (the preferred southward extension) via the undeveloped West 75th Avenue right-of-way and Hudson Street, subject to archaeological assessment and collaboration with Musqueam Nation; and
 - iv. Continued collaboration with the Vancouver Board of Parks and Recreation to integrate the Arbutus Greenway design and coordinate implementation with existing and planned parks adjacent to the corridor.

- C. THAT Council direct staff to prepare recommended amendments to the Arbutus Corridor Official Development Plan to remove lands not required for transportation or greenway purposes, develop planning programs for areas along the greenway where appropriate and in alignment with City priorities, and work toward the development of surplus City-owned lands along East Boulevard between West 37th Avenue and approximately West 40th Avenue.
- D. THAT Council direct staff to develop a stewardship plan for the Arbutus Greenway, addressing ongoing management of the asset and programming of public spaces along the greenway.

REPORT SUMMARY

In 2016, the City purchased the Arbutus Corridor rail line from Canadian Pacific Railway (CPR) with the intent of transforming it into a premier greenway for walking, wheeling, cycling, and a future streetcar line. The project presents a rare opportunity to create a relatively uninterrupted linear public space and transportation corridor from False Creek to the Fraser River.

Over the last 18 months, the project team has developed a design vision for the future Arbutus Greenway that incorporates walking, wheeling and cycling paths and identifies space for a future streetcar line. Consistent with what staff heard from the public and stakeholders throughout the process, the vision offers variety along the corridor – a variety of experiences, of landscapes, of public spaces, and of scale.

In addition to offering a convenient and comfortable transportation route and a variety of public spaces, the Arbutus Greenway represents a notable opportunity to collaborate closely with the Musqueam, Squamish, and Tsleil-Waututh First Nations (the "MST First Nations") to educate the public on and honour First Nations culture and traditional activities in the Vancouver area. Through ongoing collaboration, representatives of the MST First Nations have expressed interest in the project and the opportunity for it to represent a cultural journey through key aspects of the corridor and its design, including naming, ethnobotany, wayfinding, storytelling, and public art. The City will continue to partner with MST First Nations as design and implementation progress.

As well as presenting the design vision for the corridor that was purchased, this report identifies short- and longer-term opportunities to extend the greenway to reach False Creek and the Fraser River, and to connect to other key active transportation routes. Through further collaboration with the MST First Nations and public/stakeholder engagement, staff are seeking to deliver the priority greenway extensions as part of the first phase of project implementation.

This report confirms that the City does not intend to use the "Option Lands" at the north end of the purchased corridor for transportation uses and that, thus far, no other "Excess Lands" have been identified along the corridor. This partially addresses key terms within the Purchase Agreement with CPR, enabling further planning work to resolve the "Option Lands".

¹ "Option Lands" are the portion of the Arbutus Corridor purchased from CPR north of West 5th Avenue that the City will not be using for walking, wheeling, cycling, or future streetcar (light rail) uses in light of engineering and safety constraints.

² "Excess Lands" are defined as any portion of the Arbutus Corridor purchased from CPR that is not needed for walking, wheeling, cycling, or future

² "Excess Lands" are defined as any portion of the Arbutus Corridor purchased from CPR that is not needed for walking, wheeling, cycling, or future streetcar (light rail) uses as determined by the City.

The report identifies an opportunity to partially fund the purchase and future development of the greenway corridor through the development of surplus³ City-owned lands. Further planning, public engagement, and transportation work are necessary, but there appears to be general public support to use lands not needed for greenway, future streetcar, or other transportation purposes to fund the project.

Lastly, this report outlines the proposed implementation strategy for the construction of eight character zones within the purchased corridor over multiple years. In addition to the connectivity improvements noted above and spot improvements on the temporary pathway, the strategy prioritizes the following two character zones for implementation in the first phase (2019-2022):

- 1. The Lookout (Character zone 8)
- 2. The Ridge (Character zone 3)

Further collaboration is also anticipated with Park Board on upcoming planning and design for the Fir Street and West 6th Avenue Park. Subject to funding, part of Zone 1 could come forward in Phase 1 to align with park development.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

In July 1995, Council approved the Citywide Greenways Plan, which identified the Arbutus Corridor as one of 17 City greenways.

In July 2000, Council adopted By-law No. 8249, the Arbutus Corridor Official Development Plan, which designated all of the land in the Arbutus Corridor for use as a public thoroughfare. The ODP limits transportation uses to rail, transit, and cycling, as well as greenway uses for walking and cycling paths.

In October 2012, Council approved Transportation 2040, which identified the Arbutus Corridor as an emerging area of focus. The plan maintained the City's long-term objective to develop the corridor as both an active transportation greenway and a future streetcar or light-rail line.

On March 4, 2016, the City reached an agreement to purchase the Arbutus railway line from Canadian Pacific Railway (CPR), requiring the City to commence a planning process to design portions of the corridor for light-rail use and walking and cycling use. The outcome of the planning process is the "Design Plans" set out in this report, and identification of any "Excess Lands" not required for transportation purposes.

Other relevant policies/decisions:

- Greenest City Action Plan (2011)
- Regional Growth Strategy (2011)
- Healthy City Strategy (2014)
- Parks and Recreation Master Plan (in development)
- Marpole Community Plan (2014)
- Renewable City Strategy (2015)
- Biodiversity Strategy (2016)

³ "Surplus Lands" refer to City-owned lands adjacent to the Arbutus Corridor (outside of the corridor purchased from CPR), which may not be needed for greenway or road-based transportation uses.

CITY MANAGER'S COMMENTS

The Arbutus Greenway represents a rare city-building opportunity to add 42 acres of treasured public space and over 9-km of walking and cycling network for people of all ages and abilities to our city. The initial investment in this corridor is already paying off, with thousands of people using the temporary pathway every day, helping to move us toward our Greenest City, Transportation 2040, and Healthy City goals. A robust public engagement program over 18 months has confirmed the community's support for developing the greenway as a world-class destination that is connected to the neighbourhoods through which it passes, grounded in its traditional uses, and designed in harmony with nature.

This project helps to build on Vancouver's reconciliation process with the Musqueam, Squamish, and Tsleil-Waututh Nations, who are interested in collaborating with the City in naming, wayfinding, ethnobotanical, and public art opportunities.

The long-term vision presented in this report, which can be phased in over multiple capital plans and funded from various sources, is fiscally responsible and provides an opportunity to generate some revenue that will support the greenway's purchase and development.

The City Manager RECOMMENDS approval of the recommendations in this report.

REPORT

The Arbutus Corridor is a 9-km former freight and passenger rail line extending from near West 1st Avenue in the north to Milton Street in the south. In March 2016, the City purchased the corridor from CPR with the intention of transforming it into a citywide transportation amenity featuring walking, wheeling, and cycling paths, landscaped and programmed public space, and a future streetcar line.

This report seeks Council endorsement of a long-term design vision for the Arbutus Greenway, which has been developed in consultation with citizens and stakeholders, and in partnership with Indigenous governments. The report also seeks Council direction to proceed with implementation of the first phase of construction, and to undertake related work to extend the greenway to existing and planned waterfront greenways and other key transportation routes.

Background/Context

Historical Uses

Long before the City of Vancouver was colonized, Indigenous people from various nations travelled across the Burrard Peninsula on footpaths and running routes. Although today's Arbutus Corridor was created in the late 1800s to facilitate contemporary rail transportation, the general alignment of the corridor has served transportation needs for millennia. The greenway presents an opportunity to demonstrate and honour the First Nations' traditional use of these routes for gathering, hunting, and communication.

The Arbutus Corridor of today is a product of Western Canadian rail development in the late 19th century. CPR was granted the land by the Provincial crown in 1886 and the rail line was completed in 1902. From 1905 to the early 1950s, the Lulu Island Interurban Line (also known

as the "Sockeye Special") carried passengers along the Arbutus Corridor between Downtown Vancouver and Steveston. Freight operation on the corridor continued until 2001.

Portions of the public street rights-of-way adjacent to the corridor have been used as far back as World War II for community gardening by both groups and individuals. Over the years, gardeners have been requested to keep their plots within the street right-of-way and off the rail corridor to remain in compliance with their license agreements.

Purchase

In early 2016, the City came to an agreement with CPR to purchase the rail corridor. The Purchase Agreement requires the City to undertake an expedited process to develop "Design Plans" for transportation uses, including walking, cycling and light rail. Any lands not required for transportation uses could be deemed "Excess Lands" and may be subject to a revenue-sharing arrangement between the City and CPR with respect to any future sale. The terms and conditions of sale are outlined in the Arbutus Railway Line Purchase Agreement, dated March 4th, 2016. Further information is also provided later in this report.

Physical Context

The corridor purchased by the City extends from near West 1st Avenue in the north to Milton Street in the south (see Figure 1 below). For most of its length, the corridor is approximately 20.1-m wide. Some sections are narrower (West 1st Avenue to West 5th Avenue: 15.1-m wide; Fir Street to Maple Street: 17.6-m wide; West 6th Avenue to West 16th Avenue: 15.1-m wide). Some sections of the corridor have City street rights-of-way immediately adjacent on one or both sides. This means that the City now owns and manages property up to 60-m wide along portions of the corridor to serve a variety of uses, such as transportation, parking, public space, and the greenway. The corridor and adjacent street rights-of-way have been considered together for the purposes of greenway design, and for the identification of any City-owned "surplus" lands outside of the purchased corridor that may not be needed for continued transportation purposes or public use.



Figure 1: Arbutus Greenway and Nearby Parks

Natural Context

A significant appeal of this corridor for active transportation uses is the shallow grades throughout. Because it was used for rail purposes, much of the corridor is on grades of less than 2%, including on the ridge between West 33rd Avenue and West 37th Avenue. The steepest segment of the corridor is between Broadway and West 16th Avenue.

The corridor also benefits from long views to the north and south in some locations.

The corridor is relatively free of significant trees at this time, although there are some mature trees in adjacent street rights-of-way. Much of the existing vegetation within the corridor is invasive species, including Himalayan blackberry, Japanese knotweed, bindweed, hops, giant hogweed, and wild chervil. Of these, blackberries are most pervasive, yet knotweed is most problematic due to its persistence and potential for damage to adjacent structures. Targeted

herbicide treatment of knotweed along the corridor began in 2017, and is expected to continue on a periodic basis over several years in efforts to eradicate the species.

Although it is narrow and much of the area will be used for transportation needs, the corridor presents an opportunity to support the City's biodiversity strategy by reintroducing and connecting habitat for native species over longer distances. This includes habitat for ground animals as well as birds, bees, and bats.

Parks Context

The Arbutus Greenway passes adjacent to six City parks, as described below and shown in Figure 1, and is in close proximity to several others. These parks are assets managed by the Vancouver Board of Parks and Recreation ("Park Board"), and are recognized as highly complementary to the Arbutus Greenway by offering opportunities for expanded public space along the route, as well as potential co-location of amenities such as washrooms. Arbutus Greenway project staff have been collaborating closely with Park Board staff through the development of the design vision.

- **Fir and 6th Park** is a relatively new park with a small playground and some passive walking and seating space, and is planned for significant expansion in the upcoming Capital Plan. As the expanded park is bisected by the Arbutus Corridor, it will be important for the project team to continue working closely with Park Board staff through the upcoming park design process.
- **Delamont Park** is located between Arbutus Street and the greenway, just north of West 7th Avenue. It is home to a well-used playground. In the longer term, Park Board intends to expand this park to improve public access to green space in this highly populated area of Kitsilano.
- Quilchena Park is the largest park along the greenway, abutting the west edge of the purchased corridor between West 29th Avenue and West 33rd Avenue. The park has a number of well-used amenities, including a skate park, dog park, playing fields, playground, washrooms, and walking paths.
- **Kerrisdale Park** is a fully programmed park, occupied by ball fields, half of the Point Grey Secondary sports field and track, and the historic Kerrisdale Arena. It is separated from the greenway by East Boulevard.
- **Riverview Park**, located at the west edge of the greenway south of West 64th Avenue, is a larger passive park with mostly mature trees, a small playground, and a few benches.
- **William Mackie Park** is a small but well-loved community park on the east side of the greenway at West 71st Avenue. The park is home to a small playground and a few other amenities. The Marpole Museum sits on City-owned property immediately south of the park.

Transportation Context

The Arbutus Corridor runs primarily north-south across the west side of Vancouver, linking distinct neighbourhoods enroute and nearly connecting False Creek to the Fraser River. It has been, and will continue to be, primarily a transportation corridor. It is particularly appealing for people using active modes (walking, wheeling, cycling, skateboarding, etc.) because grades along the route are shallow and for much of its length it is relatively uninterrupted by crossing

traffic. South of West 16th Ave, crossings occur primarily at arterial streets that are spaced up to 800-m apart. Therefore, interactions between greenway users and motor vehicle traffic are relatively infrequent.

For people walking on foot or wheeling with a mobility aid, the corridor is relatively accessible today, and long-term improvements will make it a fully accessible, comfortable, and pleasant place that is mostly separated from motor vehicle traffic. Project staff have already heard many anecdotes of people – seniors in particular – who are walking more for exercise and recreation.

The corridor intersects numerous east-west and north-south cycling routes and greenways, such as the Cypress Bikeway, Off Broadway Bikeway, 10th Avenue Bikeway, 29th Avenue Bikeway, Ridgeway Greenway, and 45th Avenue Bikeway, among others. This high level of connectivity makes the greenway a significant addition to the City's broader cycling network. Most importantly, the greenway and its associated connections add over 9-km to the City's "all-ages-and-abilities" (AAA) cycling network, providing a safe, comfortable, and convenient route for people who might otherwise not cycle.

The Arbutus Greenway will also integrate with numerous transit services to enable multi-modal travel for all purposes. Of particular note will be an integrated rapid transit station at the Millennium Line Broadway Extension, adjacent to the greenway at West Broadway, and a new east-west B-Line service on West 41st Avenue in Kerrisdale, which staff are working to integrate closely with the greenway.

Temporary Pathway

Shortly after the City purchased the corridor and the rails were removed, staff began to design and construct a temporary pathway from Fir Street to Milton Street. The intent of the temporary pathway was to implement a relatively simple and inexpensive shared pathway that would enable citizens to explore the route and consider its future potential while the City planned for a high-quality greenway. The section to the north of West 5th Avenue and Fir Street was not developed as part of the temporary pathway due to engineering and safety constraints, as laid out in the Purchase Agreement.

Although some community members expressed concern about the paving of the corridor, public engagement undertaken shortly after the project began revealed strong support for hard surfacing to enable access and improve comfort, particularly for people with disabilities. Based on that engagement effort, staff chose to invest significantly more resources into the temporary pathway to improve intersection crossings, add benches and landscaping, install temporary washrooms, and add width to enable separation of walking and cycling along the corridor.

Work continues on improvements to the temporary pathway, with intersection signalization recently completed at West Broadway and West 12th Avenue, and now wrapping up at Southwest Marine Drive. Installation of a solar lighting pilot project is also underway between West 33rd Avenue and West 37th Avenue, the darkest segment of the greenway. Many of these improvements are transferable to the permanent greenway, but the temporary pathway is not designed for the long term.

Public interest and support for the temporary pathway has been evident from early in the project. The following table summarizes summer and winter user counts collected on weekdays and weekends. As illustrated in the data, winter usage in early 2018 remained strong relative to warmer months in 2017, with walking volumes increasing at all locations. Moreover, usage is

generally higher on weekends than on weekdays, indicating that the pathway is providing an important recreational function in addition to being used for commuting.

Table 1: Walking, Wheeling and Cycling Count Data Summary

Location	Summer 2017				Winter 2018					
	Weekday		Weekend		Peak	Weekday		Weekend		Peak
	16	Ø₽	16	Ø₽	Total Usage	16	Ø₽	16	Ø₽	Total Usage
Cypress St	740	470	690	1280	1970	440	670	1370	940	2310
West King Edward Ave	340	490	350	1940	2290	400	530	890	610	1500
West 49 th Ave	420	280	670	710	1380	330	250	860	950	1810

Note: Counts collected by human observers over 12-hour period on multiple days.

The temporary path has also proven to be popular for educational, research, and community initiatives. Since 2016, staff have collaborated with the Centre for Hip Health and Mobility, UBC landscape architecture, forestry and urban design professors and students, and public and private elementary schools near the corridor on various projects. The temporary path has also been home to several VIVA Vancouver activations, a mural project, a photography exhibit, and a community book trading library.

Strategic Analysis

Collaboration with Musqueam, Squamish, and Tsleil-Waututh Nations

The Arbutus Greenway represents a significant opportunity to educate the public on and honour the traditional uses of Pacific Northwest vegetation and running/messenger routes by MST First Nations. Members of the project team have met numerous times with representatives of the MST First Nations to identify their interests in the project and to develop a working relationship that will help to guide design and implementation of the greenway. Staff also attended a fall 2017 community open house at Musqueam at which various City projects were represented.

To date, the MST First Nations have expressed interest in the project and the opportunity for it to represent a cultural journey through the following key aspects of the corridor and its design:

- Naming of the corridor and/or specific locations along the route
- Ethnobotany and native plantings, including traditional use of plant materials
- · Wayfinding, signage, and storytelling
- Public art

Project staff continue to work collaboratively with representatives of the MST First Nations on a framework for developing these aspects of the project further, including opportunities to contract with the MST First Nations' knowledge holders and artists. The project team highly values this collaboration and will continue to work on flexible timelines to accommodate meaningful discussion with the MST First Nations.

In addition to working with MST First Nations on these overarching elements, the project team is working more closely with the Musqueam Nation on the extension of the greenway to the Fraser River, which will involve crossing ćəsna?əm, a traditional village and burial site. As outlined later in this report, Musqueam elders are open to collaborating on this aspect of the project.

Public and Stakeholder Engagement

Planning, design, and implementation of the Arbutus Greenway is being shaped through a multiphased engagement process, with multiple opportunities to get involved. Public and stakeholder input heavily influenced the vision for the future greenway, and provided many ideas that have been incorporated into the design vision (such as the emphasis on physical separation between modes, and incorporation of urban ecology and urban agriculture). When developing the design vision, staff considered public input along with legal, technical, and financial considerations.

Engagement Process

Since September 2016, the project team has held over 50 events and had more than 7,000 "touchpoints" or interactions with stakeholders and members of the public. Engagement and outreach tactics have included the following:

- 1 multi-day charrette / design workshop (the "Design Jam")
- 8 half-day stakeholder workshops
- 14 public open houses
- 28 pop-up outreach events
- 17 advisory committee meetings
- 40-plus community group meetings
- 2 Talk Vancouver online surveys
- 7 social media channels in both English and Chinese

The engagement process has included five rounds of engagement and outreach to date, as outlined in Table 2.

Table 2: Engagement Objectives

Engagement Round	Engagement objectives
Temporary Path	Share concerns and perceived benefits
Fall 2016	Give feedback on design principles and design options
Vision and Values	Share vision and values for the future greenway
Spring 2017	Give feedback on how they want to participate
Project Outreach	Learn about opportunities to get involved in the planning process, and
Summer 2017	apply to be an "Arbutus Champion"
Design Options	Identify desired features, amenities, and experiences
Fall 2017	Explore design possibilities for six "test" locations
	Provide feedback on the proposed streetcar alignment
Proposed Design	Give feedback on proposed design, north/south extensions and
Spring 2018	connections, and potential funding mechanism

Following each round of engagement, staff published a consultation summary report, including key themes along with more detailed findings. The Proposed Design Consultation Summary Report, from the most recent round of engagement, is enclosed as Appendix A. Summary reports for previous rounds of engagement can be found on the project website at vancouver.ca/arbutusgreenway.

Key Themes and Findings

A number of overarching themes emerged over the course of the project, building on what staff heard during previous rounds of engagement. These include a desire for:

- Safe, comfortable, and accessible design;
- Additional amenities such as public washrooms and seating;
- Places for social interaction, play, and relaxation;
- Connections to neighbourhoods, parks, and other points of interest along the greenway and at the north and south ends; and
- Opportunities for urban ecology and urban agriculture.

In April and May 2018, as part of the fourth round of engagement, staff asked for feedback on the proposed design. On average, 74% of survey respondents indicated that they "like" or "really like" the proposed design (Figure 2). In addition to the above-noted themes, a number of participants expressed a desire to enhance the existing context while being careful to not overdesign. There were also a number of questions and comments relating to north/south extensions, implementation timeline for streetcar, and retention of licensed community gardens.

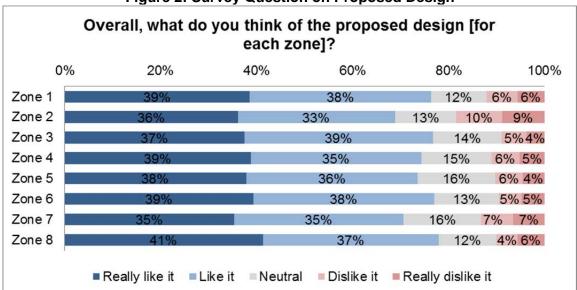


Figure 2: Survey Question on Proposed Design

Note: See "Design Vision: Character Zones" section for geographic extents of character zones.

As part of spring 2018, engagement, we also asked about the use of potential "Excess Lands" (i.e., any portion of the corridor not needed for walking, wheeling, cycling, or future streetcar). Three out of five (59%) survey respondents "agree" or "strongly agree" with the use of excess lands to fund construction of the future greenway. An additional 18% are "neutral" and 23% "disagree" or "strongly disagree". A number of respondents expressed a desire for additional information and consultation.

Future Phases of Engagement

Further engagement is planned as part of detailed design and implementation of the greenway, including consultation on the following topics:

- North extension to False Creek/Granville Island;
- South extension to the Fraser River and nearby destinations; and
- Detailed design for each character zone (phased approach).

It is important to note that any rezoning of potential excess/surplus lands would be considered in a separate community planning process with further public engagement.

Greenway Vision and Objectives

As an outcome of the first two phases of public engagement – Temporary Path and Visioning – the project team, with support from the project's technical and executive advisory committees, developed the following vision for the future Arbutus Greenway:

The Arbutus Greenway will be a defining element of Vancouver's urban landscape as a vibrant and beautiful public space for walking, wheeling, cycling, and streetcar. It will be a destination which fosters both movement and rich social interaction — inspired by nature and the stories of the places it connects.

Complementary to this vision statement are nine objectives for the project, provided in the design vision in Appendix B. These have guided the development of the preferred design concept presented in this report.

A Corridor of Variety

A broad range of design ideas and priorities emerged through engagement, reinforcing that the Arbutus Corridor should reflect and will need to embody varied characteristics, community interests, and needs, some of which may appear to be at odds. Examples are illustrated in the following figure:

Natural ↔ cultivated	Indigenous heritage ↔ colonial heritage
Urban ↔ "rural"	Loose/unstructured ↔ purposeful
Intimate ↔ gregarious	City-serving ↔ community-oriented
Movement ↔ pause	Fast-moving ↔ slow-moving

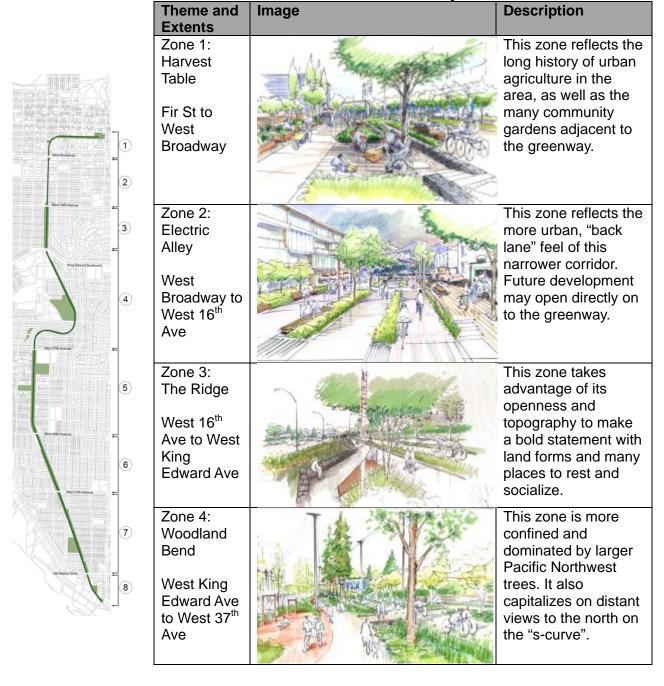
The challenge for the design team was to reflect these many diverse priorities in the preferred design concept. The project's vision incorporates much variety along the corridor – a variety of experiences, of landscapes, of public spaces, and of scale.

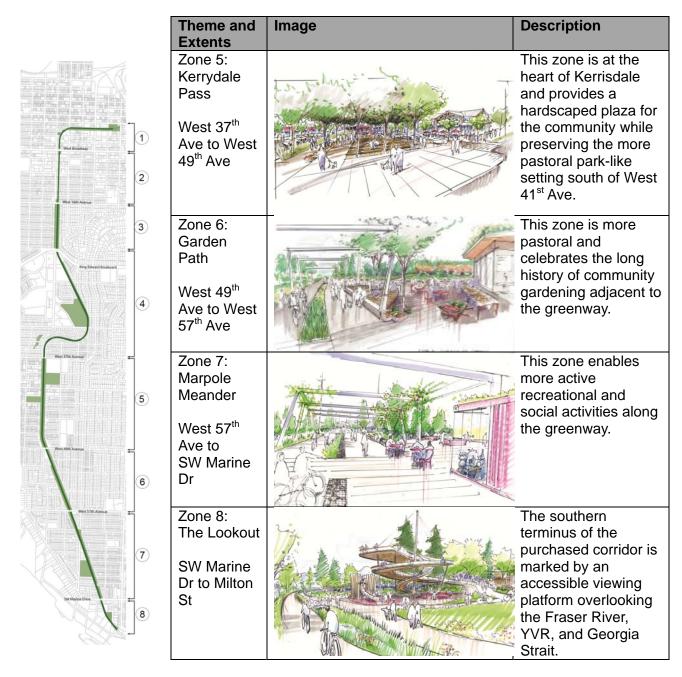
This interest in variety and a strong public desire to design the corridor around the neighbourhoods through which it passes led the design team to segment the greenway into eight "character zones". These zones are distinct owing to their spatial characteristics, location along the corridor, adjacent land and community uses, and programmatic elements. Although there will be common design elements that unify the entire greenway, each character zone will offer unique elements and experiences to users. This approach also enables the greenway to be implemented in phases, with priorities based on the unique characteristics and implementation considerations of each zone.

Design Vision: Character Zones

The design vision, which is presented in full in Appendix B, is formulated around the eight character zones described below (Table 3). Each zone reflects a broad theme and is attributed a temporary placeholder name to facilitate discussion with the public and stakeholders. As noted previously, however, staff are engaged in discussions with the MST First Nations on various topics of common interest, of which naming of the greenway and its elements is a key consideration.

Table 3: Character Zone Summary





Park Interfaces

The greenway project aligns well with the Park Board's goal to "create a city-wide network of connected parks and green spaces". There is a significant opportunity to integrate the greenway with the six parks adjacent to the corridor, which will expand the experience of the greenway and offer more space for people to pause along the route. Parks offer opportunities for improved habitat connectivity, expanded green infrastructure and naturalized space, shared washrooms and concessions, and recreation facilities. That said, there is increasing demand on these park spaces and, consequently, a growing need to protect them.

Despite there being six parks along the 9-km route, there are large segments of the greenway that are lacking unprogrammed park space within a 5-minute walking distance. The greenway can provide that needed passive space, and help to achieve the "Access to Nature" goal in the

Greenest City Action Plan. In this way, the greenway and nearby parks will have a symbiotic relationship and should ideally be fully integrated.

Project staff have been working closely with Park Board staff to explore these opportunities and to develop a set of guiding principles for the integration of the greenway with parks (see Appendix B). It must be noted, however, that the Park Board is currently renewing its long-term Parks and Recreation Master Plan, which will identify long-term open space and recreation needs across the city. Several of the parks (and associated recreation facilities) along the greenway are expected to be expanded or renewed in the coming years, at which point there will be a better opportunity to integrate the greenway and the parks. The planned timing of these updates and renewals is being carefully considered in the development of proposed scheduling and implementation of the greenway. In the meantime, with Council support, the project team will continue to work with Park Board staff to use the guiding principles to inform the greenway design and identify short-term priorities and minor improvements to open up the interfaces between the greenway and adjacent parks, as identified in the Park Board capital plan.

Future Streetcar

As set out in the Purchase Agreement with CPR, the City purchased the Arbutus Corridor with the long-term intention of developing light rail along the corridor. Accordingly, the project objectives include dedicating space for a future streetcar (a form of light rail), and the Design Plans presented within this report were developed on this basis. However, there is currently no anticipated timeline or committed funding for delivery of a streetcar service along the Arbutus Corridor. It is likely that any streetcar service in Vancouver would be part of the regional transit network, currently operated by TransLink.

The design team has developed a greenway concept into which future streetcar can be inserted, but there will need to be reconfiguration of the walking and cycling infrastructure in some areas at the time streetcar implementation. In the absence of a committed timeline, this is a reasonable design assumption. Furthermore, BC Hydro infrastructure along the corridor will need to be relocated or undergrounded as part of the streetcar project.

At this conceptual level of planning and design for a streetcar, the design team considered three primary alignment options, as follows:

- 1. The streetcar lies entirely within the land area purchased from CPR.
- 2. The streetcar lies generally to the east side of the corridor, partly within the purchased area and partly in the East Boulevard right-of-way (where it is adjacent to the purchased area).
- 3. The streetcar lies generally to the west side of the corridor, partly within the purchased area but mostly in the right-of-way of West Boulevard/Arbutus Street (where it is adjacent to the purchased area).

In assessing these alignment options at a high level and without undertaking an extensive streetcar design exercise, staff considered a number of criteria, such as transit efficiency, traffic and parking impacts, greenway impacts, community impacts, and so forth.

The preferred streetcar alignment used to develop this greenway design vision is a hybrid of the three options considered. For transit efficiency, to minimize traffic and parking impacts, and to consider the Purchase Agreement to the greatest extent possible, the preferred alignment generally lies at the western edge of the purchased area. Where West Boulevard/Arbutus Street

is adjacent to the corridor, the streetcar alignment lies partially within the street right-of-way (but out of the street itself) to maximize public space along the greenway.

In the narrowest segment of the corridor (West 8th Avenue to West 16th Avenue), which is 15-m wide, there is insufficient space to accommodate two streetcar tracks and walking and cycling paths of the desired width. In this section, the plan assumes that the northbound streetcar will be located along Arbutus Street, with the southbound track remaining in the greenway corridor.

Once the timing for implementation of a streetcar along the Arbutus Greenway is better known, a detailed planning and design effort will be undertaken. That work will finalize track alignment, stop locations, operational details, and vehicle specifications (among other topics).

Separate to this process, the Transportation Division has retained a consultant to undertake a technical update of the citywide streetcar network plan. This plan will be reported to Council at a later date and will include consideration of the Arbutus Greenway streetcar and its integration with the broader network.

Greenway Extensions and Connections

The first project objective shown in the design vision is that the Arbutus Greenway extends from False Creek to the Fraser River, connecting water to water and linking existing and planned waterfront greenways at both ends. The MST First Nations and the general public are also supportive of a water-to-water experience. However, the purchased corridor falls short of both False Creek and the Fraser River. To achieve this objective, the project team has evaluated various options for extending the greenway beyond its current limits, and to connect to other key existing and planned active transportation corridors. These extensions will be critical to achieving a greenway that is fully integrated into the City's active transportation network.

North Extensions and Connections

The primary objective for the north end of the greenway is to connect it to the False Creek Seawall and Granville Island. Other important connections include Burrard Bridge and Granville Bridge (and the future greenway across the bridge).

Based on an analysis of numerous criteria and several routing options, staff recommend that the immediate priority be to extend the greenway along Pine Street to West 1st Avenue, and along West 1st Avenue to Creekside Drive to reach the Seawall and Granville Island (see Figure 3 below). This would entail the installation of protected bike lanes and improved walking facilities to achieve the project's objective of providing a continuous "AAA" experience.

Other recommended connections in the longer term include:

- A "AAA" cycling connection along West 1st Avenue from Pine Street to Burrard Street to provide a seamless option to the Burrard Bridge and points west.
- A future walking (and potentially cycling) facility under the Fir Street off-ramp of the Granville
 Bridge to connect directly to Granville Island. The City currently leases lands and buildings
 under the off-ramp to commercial tenants, so any modification and associated timeline to
 establish a greenway connection would need to account for existing lease arrangements.
 This connection could be associated with potential reconfiguration of the southbound
 Granville Bridge cloverleaf ramp, anticipated later in the 2019-2022 Capital Plan.

 A future walking and cycling connection to the planned Granville Bridge Greenway, likely along West 5th Avenue. Design of this facility would have to be integrated with the Park Board's design for an expanded 6th and Fir Park, and potential reconfiguration of the southbound Granville Bridge cloverleaf ramp.

In addition to these active transportation connections, the streetcar is envisioned to extend from West 6th Avenue and Fir Street northward along Fir Street to connect with an east-west streetcar route along False Creek South, and to extend eastward along West 6th Avenue to Granville Street, where it would turn northward across the bridge. Details of these connections will be further developed as part of the update to the citywide streetcar network plan, now underway.

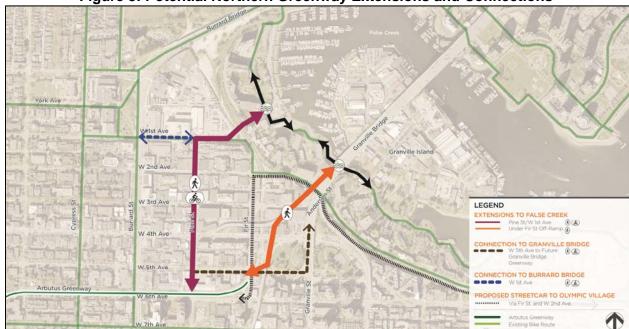


Figure 3: Potential Northern Greenway Extensions and Connections

With Council endorsement in principle, staff will further develop designs for the northerly extension along Pine Street and West 1st Avenue and initiate engagement with businesses and residents of the area. Staff will also continue to develop concepts for the other recommended connections in coordination with upcoming transportation and park projects.

South Extensions and Connections

The primary short-term objective for the southern extension of the greenway is to reach the Fraser River. Other important active transportation destinations in the area include the Marine Drive Canada Line Station, the Canada Line Bridge over the river, Kent Avenue Bikeway, and the Arthur Laing Bridge. The various route options are illustrated in Figure 4 below.

There are numerous challenges with these southerly connections, including:

 The ćəsna?əm site, which extends from approximately Milton Street to approximately Hudson Street and has cultural and archaeological value to the Musqueam Nation and the City of Vancouver.

- The slope immediately to the south of the greenway (e.g., along Milton Street) is too steep to be considered accessible or "AAA".
- The City's road network to the east of Hudson Street is limited and challenging for "AAA" walking and cycling. This limited network is used for industrial operations and trucking, so the development of a connection through this area will be challenging.

As an immediate priority, the project team is working with Musqueam representatives to develop a minimally-intrusive, yet accessible, route across ćesna?em to reach the City's unused street right-of-way at West 75th Avenue. This would enable a connection to Hudson Street and a planned street-end park on the Fraser River. Staff are working with Musqueam to undertake an archaeological investigation of the proposed route. Subject to Council direction, the results of the archaeological investigation, and continued collaboration with Musqueam Nation, the project team will continue to develop designs and construction plans for this greenway extension. Engagement with affected stakeholders near the route will also be undertaken.



Figure 4: Potential Southern Greenway Extensions & Connections

Other walking and cycling connections recommended for further development over time include the following:

- A route to the Fraser River and Richmond Island via West 75th Avenue and Bentley Street.
- A route to Fraser River Park via Barnard Street and West 75th Avenue.
- A connection from the greenway path to SW Marine Drive south of William Mackie Park to
 enable people to cycle more easily between the greenway and the Arthur Laing Bridge. This
 will be developed as part of the design and implementation of character zone 8 ("The
 Lookout").

- An eastward connection to the Canada Line Bridge and Kent Avenue Bikeway from the West 75th Avenue right-of-way at Hudson Street, which may involve property acquisition or leasing.
- A bike route along West 67th Avenue and West 68th Avenue to the Heather Street Bikeway to connect to the Canada Line Bridge and Marine Drive Station. This route is identified in the Marpole Community Plan and was signed in 2017 to give people direction between the Heather Bikeway and the greenway. Further improvements will be considered to make it more comfortable for people of all ages and abilities.
- A bike route along West 64th Avenue to Cambie Street to connect to the Canada Line Bridge and Marine Drive Station. This route is identified in the Marpole Community Plan.

With Council endorsement of these connections in principle, staff will continue to develop these greenway connections over time, subsequent to the completion of the immediate priority route crossing ćəsna?əm. Further public engagement and Council direction may be required.

Lands Not Required for Transportation

The Arbutus Corridor Purchase Agreement requires the City to complete an expedited planning and design process for the purchased corridor to identify those portions of the lands required for transportation uses (the "Design Plans"), including walking, cycling, and light rail. This planning and design process has reviewed whether there are any corridor lands purchased from CPR, or other City-owned lands adjacent to the corridor, that are not required for greenway, future streetcar, or other transportation purposes.

Excess and Option Lands

Lands within the purchased corridor not required for transportation use may be deemed "Excess Lands", and may be made available by the City for residential, commercial or industrial development. The Purchase Agreement provides that revenue generated by the sale of Excess Lands may be shared between the City and CPR.

Although the agreement requires the City to review the entire corridor for potential Excess Lands, the Purchase Agreement specifically recognizes that the City does not intend to use that portion of the purchased corridor north of West 5th Avenue (the "Option Lands") for transportation uses due to safety and engineering constraints (see Figure 5 below). If, subsequent to approval of these Design Plans, the City amends the Arbutus Corridor Official Development Plan (ODP) and approves rezoning and subdivision of the Option Lands, then CPR has 90 days to exercise its option to re-purchase these properties.



Figure 5: Option Lands

If CPR exercises this option, then it has no further right to share in the sale proceeds of any Excess Lands south of West 5th Avenue. If CPR chooses not to exercise this option, then the City and CPR will share revenue generated from the sale of any Excess Lands.

At this time, the Design Plans presented in this report identify no Excess Lands outside of the Option Lands.

With Council direction, staff intend to subsequently bring a report to Council to initiate the process to withdraw the Option Lands from the Arbutus Corridor ODP, as they are not needed for transportation purposes per the ODP. Should such an amendment be approved, this will enable a subsequent planning process to determine future land uses on those properties and allow CPR to decide whether it will exercise its option to re-purchase them. Staff expect to bring forward a proposed amendment to the False Creek Official Development Plan for Council consideration in 2019, setting out development potential for the triangular-shaped parcel on the east side of Fir Street, north of West 2nd Avenue.

Surplus City Lands

Staff have developed the design vision for greenway and transportation uses including both the purchased corridor and City-owned lands (primarily street rights-of-way) immediately adjacent to the purchased corridor. Through this process to date, staff have identified one area of City-owned land that may be deemed surplus and not used for the greenway or needed for road-based transportation. This area is distinct from the Excess Lands described previously because it lies entirely outside the corridor purchased from CPR, whereas the Excess Lands (defined in the Purchase Agreement) are only lands within the boundaries of the purchased corridor. This presents an opportunity to release these lands for other purposes, such as development, and to use revenue from them to fund the purchase and implementation of the Arbutus Greenway.

The area identified as potentially surplus is along East Boulevard between West 37th Avenue and approximately West 40th Avenue, including the street right-of-way of East Boulevard, as illustrated below in Figure 6. Greenway uses, including the future streetcar, will consume the purchased corridor. The appropriate type and scale of potential development at this location requires further investigation, and community engagement, by staff. Existing users of the space (e.g., park/track users, film industry, school community, etc.) will need to be considered through the planning process to determine how their needs may be accommodated in the future.

Kerrisdale Park Secondary School SURPLUS LANDS STUDY AREA

Figure 6: Potential Surplus City Lands Adjacent to Greenway Corridor

Full closure of East Boulevard to motor vehicles between West 37th Avenue and West 40th Avenue will have implications for local access, circulation and parking in the Kerrisdale neighbourhood, and will require changes to the road and traffic signal networks to mitigate impacts. The necessary transportation modifications will need to be identified through further technical analysis in a collaborative effort between the Engineering and Planning, Urban Design and Sustainability departments.

Associated Community Planning Initiatives

There are several current and future planning initiatives that are applicable to the greenway.

Broadway Corridor Station Area Planning (expected to launch imminently) is arising from the Millennium Line Broadway SkyTrain Extension and has an approximate study area bounded by 4th Avenue, Clark Drive, 16th Avenue, and Vine Street. It relates to Character Zones 1 and 2 of the proposed greenway design. The target date for completion of the Broadway Corridor Plan is the end of 2020.

The upcoming *Employment Lands Study* will be relevant to the greenway connections to the north, linking to False Creek and industrial and mixed employment lands in south Vancouver. As part of City Core 2050, the Employment Lands Study will focus on job space, land supply, and infrastructure to support a robust and diverse economy over the coming decades.

Northern greenway connections will be considered in parallel with the False Creek South planning program. Council recently approved a Provisional Vision Statement and Guiding Planning Principles for False Creek South. Long-term comprehensive planning will occur at an appropriate time, when greater clarity is reached on lease negotiations for City-owned land in the community.

Implementation of the *Housing Vancouver Strategy* will see the launch of new neighbourhood centre planning programs and opportunities to increase housing choices across the city. Overall, 72,000 new homes are targeted over the next 10 years, including 12,000 social, supportive and non-profit co-op units and 20,000 purpose-built rental units.

Arbutus Village and Kerrisdale Village were identified in the *Arbutus Ridge, Kerrisdale, Shaughnessy (ARKS) Community Vision* for possible neighbourhood centre planning. These areas relate to Character Zones 4 and 5, respectively.

Lastly, the *Marpole Community Plan*, approved in May 2014, relates to Character Zones 7 and 8, as well as the southern connection to the Fraser River. Although the Community Plan has already been approved, implementation of the plan is ongoing. This plan provides opportunities for rezoning and development in accordance with the Council-approved policy.

Implementation Strategy

The Arbutus Greenway will be implemented over many years and multiple (at least four) capital plans. Designing the greenway in character zones enables a simpler approach to implementation in that these discrete zones can be designed and constructed as distinct segments that can be selected over time in response to evolving City priorities, project coordination opportunities (e.g., transit and park projects), and available funding.

In addition to setting current priorities for the eight character zones within the area purchased, the implementation strategy prioritizes connectivity to False Creek and the Fraser River, various "spot improvements" to be introduced over the next four years, and collaboration with park planning activities. This will ensure that the existing temporary pathway is able to accommodate growing demands until such time as permanent greenway infrastructure is completed.

Staff developed an evaluation framework (see Appendix C for details) for the eight character zones that reflects a broad range of implementation considerations including visibility/profile, equity, relative cost, ability to enhance safety, and relevant planning and transit initiatives, among others. The criteria are organized into two categories:

- 1. Reasons for advancing the zone forward in the construction sequence
- 2. Reasons for postponing the zone in the construction sequence

The evaluation led to the following recommendations for implementation of Phase 1 by 2022, subject to funding availability:

- A southern extension to the Hudson street-end park and the Fraser River
- A northern extension from the greenway to False Creek and the Seawall (Seaside Greenway)
- The Lookout SW Marine to Milton Street (Zone 8)
- The Ridge West 16th Avenue to West King Edward Avenue (Zone 3)
- Short-term spot improvements to enhance safety and comfort for people walking, wheeling, and cycling (see Appendix C, page 13)
- Coordinate Zone 1 greenway planning with Park Board's park planning in Zone 1 (West 6th Avenue and Fir Street Park, Delamont Park)

Subsequent phases will be determined in conjunction with Council priorities, access to funds, and other priorities at the time. Cost estimates for subsequent phases will be developed in association with detailed design and reported to Council.

Further Work

The following items will be pursued as part of implementation of the first phase of the greenway.

Arbutus Greenway Master Plan

The design vision described in this report and in Appendix B gives Council an overview of the high-level design features of each character zone along the corridor, as well as early thinking about key design elements such as benches, structures, and wayfinding. The Arbutus Greenway Master Plan will provide a more in-depth narrative about the project, its origins, and its future as a defining element in Vancouver.

For example, the Master Plan will include the following elements:

- Overarching design narrative
- Wayfinding and storytelling/interpretive features
- Further detail on key design elements, such as benches, lighting, structures
- Planting palette
- Green infrastructure and urban ecology features

At this time, staff intend to finalize the Arbutus Greenway Master Plan by spring 2019. Wayfinding and key design elements described in the Master Plan will be incorporated into each character zone starting with the first phase of implementation.

Conversion of Properties to "Road"

The corridor purchased by the City comprises a large number of small, abutting parcels of real property. To simplify design, construction, and ongoing operation of the greenway corridor, staff intend to report back to Council with recommendations on the consolidation of the real property and considerations for the establishment of the corridor as a "road" under Section 291a of the Vancouver Charter.

Management and Stewardship Strategy

The greenway represents a significant addition of approximately 42 acres of public space and transportation infrastructure to the City's assets. This requires an ongoing commitment to maintenance and stewardship in perpetuity.

Management and operations will include the following examples:

- Sweeping, debris removal
- Salting, snow removal
- Landscape maintenance, tree trimming
- Maintenance/repair/replacement of structures and furnishings
- Invasive species management
- Washroom maintenance
- Electrical maintenance

- Garbage/recycling/dog waste removal
- Litter removal
- Permitting for events
- Community garden management
- Monitoring
- Graffiti management
- Sign and marking replacement

In addition, the provision of public spaces along the length of the corridor will require stewardship and ongoing programming, potentially in partnership with community groups and business improvement associations.

With Council direction, staff will report back to Council with a management and stewardship plan for the greenway. This plan will be prepared in collaboration with Park Board and staff from other involved Departments and Engineering branches.

Public/Civic Agency Input

Through the development of the design vision over the past two years, the Arbutus Greenway project team presented to and gathered input from several Council and other stakeholder committees, as listed below. These groups were generally updated prior to or during each round of public engagement, meaning that there were up to four presentations to each over the course of the planning and design process.

- Persons with Disabilities Advisory Committee
- Urban Aboriginal Peoples Advisory Committee
- Active Transportation Policy Council
- Children, Youth and Families Advisory Committee
- Transportation 2040 Stakeholder Committee
- Public Art Committee
- Seniors' Advisory Committee

Implications/Related Issues/Risk

Financial

With Council direction, staff will initiate detailed design and related technical work for the first phase of implementation for the Arbutus Greenway through the 2019-2022 Capital Plan cycle. Funding is already secured for staffing and design costs during this phase.

Capital costs for the first phase are expected to be funded from a combination of Community Amenity Contributions (CACs) from new developments in the area and external sources. Staff will pursue contributions from all three senior levels of government, with an objective of securing at least 50% of capital costs from these sources.

Implementation of the greenway is scalable to available funding, and staff will report back to Council on implementation and funding as necessary over the course of the coming Capital Plan cycle. It is currently anticipated that future phases will occur over subsequent Capital Plan cycles in a similar fashion.

Environmental

The addition of over 9-km of walking and cycling routes for people of all ages and abilities makes a significant contribution to the City's environmental and transportation goals by encouraging people to travel using healthy, less-polluting modes of travel.

The southern extent of the greenway and the proposed southward extension to the Fraser River lie within the known extents of ćəsna?əm. Prior to undertaking any construction in this area, the City will complete an archaeological assessment under permit from the provincial government. Any artefacts and/or remains that are found during this assessment will be

handled in close cooperation with the Musqueam Nation. If the extent of artefacts and/or remains is extensive, then project staff will liaise with senior management and Musqueam representatives to determine whether a modified approach to the project is necessary.

Legal

The completion of the design vision is intended to meet the requirements under Article 9.1 of the Arbutus Railway Line Purchase Agreement between CPR and the City.

Further action related to the "Option Lands" is required by the City to meet Articles 9.2, 9.3, and 9.4 and other aspects of the agreement. Article 9.5 of the agreement states that the City must make "reasonable efforts" to complete these processes by the fourth anniversary of the Closing Date, or March 7, 2020.

CONCLUSION

The Arbutus Greenway presents a rare opportunity to create a relatively uninterrupted water-to-water, linear public space to serve the entire city and beyond. Through a robust public engagement effort, the City's project team has developed a design vision for the greenway that responds to the distinct characteristics and contexts of the neighbourhoods through which it passes.

Implementation of the entire greenway will take place over multiple years. This report seeks Council endorsement for the design vision, and direction to proceed with a number of initiatives to enable the first phase of implementation to begin.

* * * * *



Arbutus Greenway Proposed Design

Consultation Summary Report

July 2018



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EXECUTIVE SUMMARY

The Arbutus Greenway is a north-south transportation corridor that will connect people, parks, and places from False Creek to the Fraser River. In 2016, the City of Vancouver purchased the land from Canadian Pacific Railway for the purpose of creating a high-quality public space for walking, cycling, and future streetcar.

The planning process has included many opportunities for residents, community members, and stakeholders to offer feedback and ideas. Since 2016, we've held **50+ events and had more than 7,000** "touchpoints" or interactions with members of the public and others.



Opportunities for Input

In spring 2018, we invited the public to learn about the proposed design and share their feedback. The following table summarizes public opportunities to provide input.

CONSULTATION ACTIVITY	TOUCHPOINTS	
Talk Vancouver Survey	1,123 responses	
April 19 - May 6, 2018		
Open Houses	809 participants	
April 19, 21, 25 and 28, 2018		
Advisory Committee Meetings	52 attendees	
April 18, 20 and 26,		
May 14 and 15, 2018		
Stakeholder meetings	31 participants	
Ongoing		









The purpose of this round of engagement was to seek public input on:

- The proposed design, focusing on eight distinct character zones
- Potential north and south connections
- Use of "Excess Lands" to fund the greenway (i.e. any portion of the Arbutus Corridor that is not needed for walking, cycling, or future streetcar).

This document provides a summary of input received from members of the public (including neighbouring residents and property owners), stakeholders, and City advisory committees. Thank you to everyone who participated!



On average, **74% of survey respondents** indicated that they "like" or "really like" the proposed design.

Some of the key themes included suggestions around:

- Ensuring the design is safe, comfortable, and easy to use;
- Providing additional amenities such as
- public washrooms and seating; and
- Enhancing the existing context while being careful not to over-design.

"I love that bike and pedestrian traffic is separated, and that there are places to sit, and all sorts of gardens to enjoy. Bravo!"

"It would be great to see more public washrooms and water fountains available along the greenway."

"People are happy with a path to walk, bike, walk dogs, or wheel strollers on. Just make it safe, green, and attractive and it will be used."

North and south connections are a medium-high priority. People look forward to improved local and regional connections

"Please advance work on these important connections for pedestrians and cyclists."

Three out of five (59%) of survey respondents support the use of Excess

Lands to fund the purchase of the corridor and the construction of the future greenway. Comments touched on a range of topics including opportunities to use potential Excess Lands for other City objectives (e.g. parkland or affordable housing) and a desire for more information and further dialogue.

"Please consider building apartment rental housing along the Arbutus corridor."

"It's unclear how excess lands would be redeveloped. More information on the potential rezoning options is needed."

How Input Will Be Used

The design team will refine the proposed design based on public input where feasible, while taking into account technical and financial considerations. The proposed design concept will then be presented to City Council in summer 2018 for their consideration. If approved, the design will serve as a framework for detailed design and construction, including further opportunities for public input.

For Excess Lands, any potential rezoning would be considered in a **future planning process** with public engagement, along with consideration of surrounding context, site planning, and other technical requirements.





1. INTRODUCTION

The Arbutus Greenway is a north-south transportation corridor that will connect people, parks, and places from False Creek to the Fraser River. In 2016, the City of Vancouver purchased the land from Canadian Pacific Railway for the purpose of creating a **high-quality public space for walking, cycling, and future streetcar**. See Appendix A for Arbutus Greenway project vision and objectives.



2. BACKGROUND

The idea of developing a greenway along the Arbutus Corridor has been City policy for more than 20 years. There are a number of plans that provide context for the project and help shape the public conversation about the future greenway:

DOCUMENT	STRATEGIC DIRECTION
Greenways Plan (1995)	Build a network of greenways, including Arbutus — a "keystone" of the planned greenways system.
Arbutus Corridor Official Development Plan (2000)	Develop the Arbutus corridor for transportation (excluding motor vehicles and elevated transit) and as a city greenway.
Greenest City 2020 Action Plan (2011)	Provide access to greenspace and support active travel: "All Vancouver residents live within a 5-minute walk of a park, greenway or other green space."
Regional Growth Strategy (2011)	Encourage walking and cycling through expansion of the regional greenway network.
Transportation 2040 (2012)	Develop the corridor for walking and cycling, and as a future streetcar route.
Healthy City Strategy (2015)	Provide safe, active, and accessible ways of getting around to help increase physical activity levels: "Make over 50 per cent of trips by foot, bicycle, and public transit."









Purchase Agreement

When the City purchased the corridor from CPR, one of the main conditions was that the greenway was to be used for walking, cycling, and future streetcar. The purchase agreement also includes language about the planning process for the corridor, which is paraphrased below:

- Section 9.1: The City will expedite the planning process for greenway components: Walking, cycling, and a future light rail.
- Section 9.2: After the greenway design is complete, the City will commence a separate planning process to determine future uses of any "Excess Lands" on the Arbutus Corridor. Council's approval will be required for any changes in land use.

Excess Lands refers to any portion of the Arbutus Corridor that is not needed for walking, cycling, or future streetcar. To help pay for the purchase of the corridor, the City is looking at developing Excess Lands. As per the Purchase Agreement, any potential rezoning of Excess Lands would be considered in a future public planning process, including further consultation.¹

Excess Lands refers to any portion of the Arbutus Corridor that is not needed for walking, cycling, or future streetcar. To help pay for the purchase of the corridor, the City is looking at developing Excess Lands. As per the Purchase Agreement, any potential rezoning of Excess Lands would be considered in a future public planning process, including further consultation.

¹Postscript: Further technical work has identified that there aren't any Excess Lands in Kerrisdale between West 37th Avenue and West 40th Avenue. However, there may be additional "surplus" lands. Surplus lands are City-owned lands that are located next to the corridor on adjacent street right-of-way, and are not required for transportation purposes.





3. PROPOSED DESIGN **ENGAGEMENT PROCESS**

In spring 2018, we invited stakeholders and members of the public to learn more about the plans for the future Arbutus Greenway and provide feedback on:

- The proposed design concept
- North and south greenway connections
- Use of Excess Lands to fund the greenway (i.e. areas not required for walking, cycling, or future streetcar).

Opportunities to provide feedback included an online survey, open houses, community stakeholder meetings, and City of Vancouver advisory committee meetings.

CONSULTATION ACTIVITY	TOUCHPOINTS	
Talk Vancouver Survey	1,123 responses	
April 19 - May 6, 2018		
Open Houses	809 participants	
April 19, 21, 25 and 28, 2018		
Advisory Committee Meetings	52 attendees	
April 18, 20 and 26,		
May 14 and 15, 2018		
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What is a Proposed Design?

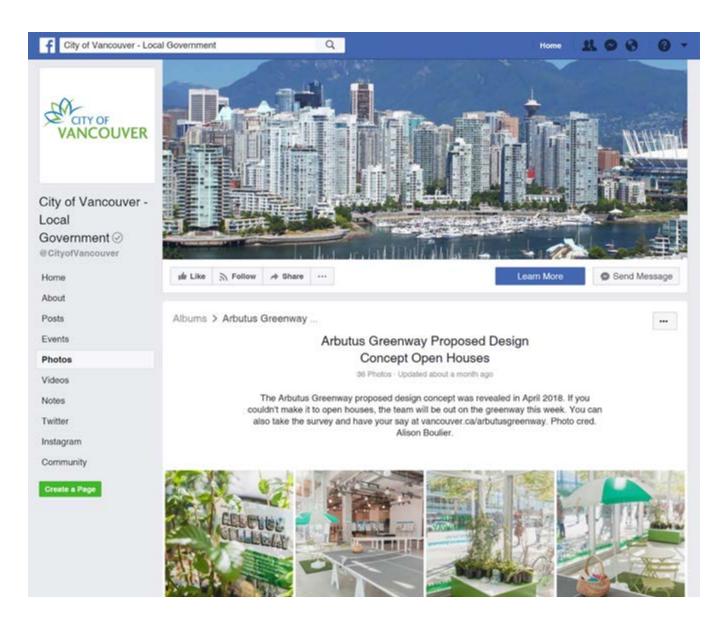
The proposed design is a high-level "design vision" for the future Arbutus Greenway, building on what we heard during previous rounds of engagement. It takes inspiration from neighbourhood characteristics and features, such as parks and views, while working within design constraints. To view the proposed design, visit vancouver.ca/arbutusgreenway.

Notification Process

Notification of opportunities to participate included:

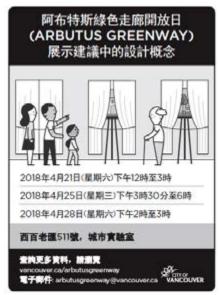
- **Social media:** Open House notifications and survey links were posted on the City of Vancouver's social media accounts, including Twitter, Facebook, Instagram, and Weibo. In addition, the City used geo-targeted Facebook, Instagram, Weibo, and WeChat ads to encourage residents to attend the events.
- **Project website:** All materials were posted on vancouver.ca/arbutusgreenway, including open house dates, a link to the survey, as well as English and Simplified Chinese information boards.
- **Newsletter:** An invitation to attend open houses and take the survey was sent to 2,500+ Arbutus Greenway newsletter subscribers.
- **Email Invitations:** An invitation to attend a special "sneak peak" open house was sent to "Arbutus Champions" (110 people who participated in a 2.5-day, collaborative design workshop in October 2017).
- **Posters:** Posters outlining opportunities to get involved were delivered to all City of Vancouver community centres and libraries.
- **Newspaper advertisements:** Advertisements were placed in the following publications inviting members of the public to attend open houses and take the survey.





Proposed Design Concept Advertisements

PUBLICATION	DATE
Vancouver Courier	April 19 and 26, 2018
Sing Tao	April 14 and 21, 2018
Ming Pao	April 14 and 21, 2018







Online Engagement

Nearly all of our engagement materials are posted on the City's website and were shared on social media via the following channels:

АСТ	IVITY	ONLINE INTERACTIONS As of May 10, 2018
f	Facebook: Facebook Live and Facebook album of proposed design concept and open houses	721 views 86 likes 5 comments
0	Instagram: Instagram posts and Instagram Stories during the open houses	5,500+ views 972 likes 16 comments
y	Twitter: Posts about open houses, surveys, and images of the proposed design concept	62 likes 40 retweets 5 comments
<u></u>	Weibo: Posts about open houses, surveys, and images of the proposed design concept	57K views 8 likes 3 comments 6 shares
%	WeChat Advertorial: Post about the Arbutus Greenway project, temporary path, proposed design concept, open houses, and survey	509 views





4. RESULTS: WHAT WE HEARD

The following section provides a summary of what we heard through our open houses, online survey, and community stakeholder meetings. Additional feedback from Advisory Committee meetings can be found in Appendix C.

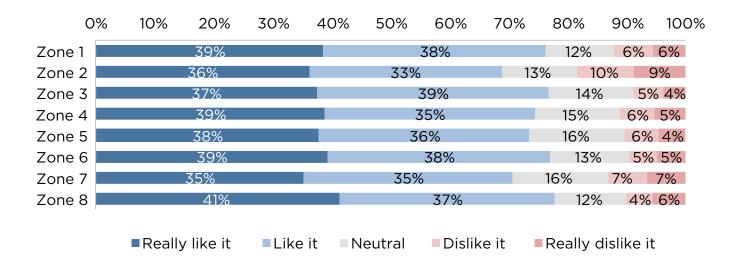
Talk Vancouver Survey

The City of Vancouver hosted an online TalkVancouver survey, which was open for comment from April 19 through May 6. Hard copies of the survey were also available at open house and by request. In total, 1,123 complete responses were received. A high-level summary of key themes and findings is presented below.

• Proposed design: Questions #1to #9 asked, "Overall, what do you think of the proposed design..." for each character zone? At a high level, most people are excited to see the design for the future greenway come to life, with many survey respondents expressing appreciation and excitement for the proposed design. On average, 74% of survey respondents indicated that they "like" or "really like" the proposed design for each character zone.



Overall, what do you think of the proposed design (for each zone)?

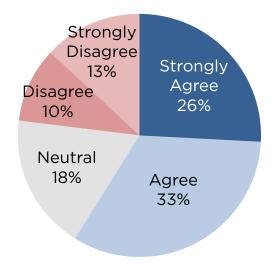


- Additional comments about the proposed design: Question #9 asked, "Do you have any other comments about the proposed design for the future Arbutus Greenway?" Of the 1,123 survey respondents, 779 people provided additional written comments regarding the proposed design. Comments were then coded by a third-party firm to better understand key themes and ideas.
 - o Nearly one in five qualitative comments expressed support for the design e.g. "I like the design", "it's great", "looking forward to it", etc.
 - o Transportation design was a major point of discussion with more than a quarter of respondents (28%) mentioning safety aspects and/or emphasizing ease of use. Concerns about intersections was a recurring theme, along with comments expressing a desire for improved connections to surrounding neighbourhoods.
 - o Many respondents indicated that they like the separation of pedestrians and cyclists. Some suggest further safety improvements such as providing greater separation between users, ensuring pedestrians do not need to cross the bike path to access rest areas/streetcars, and enforcing cycling speeds.
 - o With respect to public realm, while amenities are appreciated, a number of respondents said that they would prefer a simpler design. Removing/reducing frames and minimizing light pollution were some of the suggestions mentioned.





- North connections: Question #10 asked. "How would you prioritize the following transportation connections that are proposed for the northern end of the greenway?" A future walking route to Granville Island under Fir Street off-ramp was the number one priority according to respondents, followed by a future walking/cycling route to False Creek via Pine Street and West 1st Avenue.
- South connections: Question #11 asked, "How would you prioritize the following transportation connections that are proposed for the southern end of the greenway?" In the south, a connection to Canada Line Bridge / Kent Avenue bike route was the number one priority, followed by "multiple future extensions" to the Fraser River, and a connection to the Marine Drive Canada Line Station.
- Excess Lands: Question #12 asked, "To what extent do you agree or disagree with developing Excess Lands to help fund the purchase of the corridor and construction of the future greenway?" In response, 59 per cent said they "strongly agree or "agree", 18 per cent said they are "neutral", and 23 per cent said they "disagree or strongly disagree".







- General comments about the project: Question #13 asked, "Do you have any other comments?" 467 people provided additional comments. Responses were coded by a thirdparty to better understand key themes and ideas.
 - o Of the 1,072 respondents who completed question #12 regarding Excess Lands, 154 provided additional comments ranging in tone and content. Some of the key themes included an interest in using Excess Lands for other City objectives, and a desire for more information and further dialogue. A number of respondents asked for more information on what types of land use would be considered and/or expressed their concerns about highrise development.
 - o Many respondents provided further comments about the proposed design. Comments touched on a broad range of topics including but not limited to safety at major intersections, support for the proposed design, desire for additional amenities, and the importance of urban ecology.
 - o North and south connections were another important topic of discussion. Comments focused local and regional destinations (e.g. downtown, Granville Island, Richmond), along with the benefits and challenges associated with different potential routes.

Complete results can be found in Appendix B, including examples of verbatim comments organized by theme.





Community Stakeholder Meetings

Leading up to and during the engagement period, the Arbutus Greenway project team met with representatives from community groups and organizations, including but not limited to community associations, business improvement associations, and community garden societies. The purpose of these meetings was to:

- Share project information and provide an opportunity to ask questions; and
- Seek feedback on the proposed design, to better understand their aspirations and concerns.

PARTICIPATING ORGANIZATIONS	DATE
Maple Community Garden Society	March 21, 2018
Cypress Community Garden Society	
City Farmer	
Pine Street Community Garden Society	March 22, 2018
Point Grey Secondary School	April 13, 2018
Arbutus Ridge Kerrisdale Shaughnessy (ARKS)	April 17, 2018
Kerrisdale Business Improvement Association (BIA)	
Shaughnessy Heights Property Owners Association (SHPOA)	
South Granville BIA	TBD





The following provides an overview of key questions and concerns:

- Streetcar: Location of future streetcar stations was a topic of discussion. There were also a number of questions about timing and integration with other greenway elements (e.g. "How would pedestrians and cyclists be separated from streetcar?" and "Will there be a buffer between gardens?"). In Kitsilano, one group suggested locating future streetcars within the street's right-of-way along West 6th Avenue. Project team members noted that streetcars were a requirement of the purchase agreement between the City and CPR.
- Transportation design: Thinking about neighbouring businesses, one person asked that the City consider potential impacts associated with reducing parking in commercial areas. Another person suggested that wayfinding signage along the greenway would help highlight local amenities and attractions.
- Public realm: One group expressed a desire for additional public washrooms. Another suggested that the City explore opportunities to animate building facades and activate the greenway in urban/commercial areas (e.g. screening a movie night on the side of a building).
- Community gardens: The project team's senior project manager explained that the City is working towards no net loss of gardens for the length of the greenway. Garden representatives asked about timeline for proposed relocation of community gardens along West 6th Avenue and proposed layout/design for relocated gardens. Several people expressed concerns about potential contamination of soil from construction of the temporary path.
- **Excess Lands:** The City's senior project manager noted that a significant portion of these lands occur on adjacent street right-of-way currently serving East Boulevard between West 37th Avenue and West 40th Avenue. One topic of discussion focused on parking and the City was asked to consider parking-use given that this area served for school pick-up and dropoff. One group suggested that some commercial uses at ground level could have a positive impact for the area.



Advisory Committee Meetings

As part of the proposed design consultation process, Arbutus Greenway project staff presented to five City of Vancouver Advisory Committees. Meeting minutes can be found in Appendix C.

5. NEXT STEPS

Thank you to everyone who provided feedback during this round of consultation. Your feedback will be used to refine the proposed design where feasible, while taking into account technical and financial considerations.

SPRING 2018	SUMMER 2018	EARLY 2019	PHASE 1	FUTURE PHASES
PROPOSED DESIGN CONCEPT	COUNCIL CONSIDERATION OF PROPOSED DESIGN	ARBUTUS GREENWAY MASTER PLAN	(Next Capital Plan) DETAILED DESIGN & CONSTRUCTION	(Additional Capital Plans) DETAILED DESIGN & CONSTRUCTION

City staff will present the proposed design to Council for their consideration in summer 2018, as part of a broader "design vision" and implementation strategy. If approved, it will be formalized in a Master Plan, providing a framework for detailed design and construction.

For Excess Lands² and surplus³ lands, any potential rezoning would be considered in a separate, future planning process including public consultation. Further information will be provided at that time.



² "Excess Lands" are defined as any portion of the Arbutus Corridor that is not needed for walking, cycling, or future streetcar (light rail) uses.

³ "Surplus Lands" are defined as City-owned lands adjacent to the Arbutus Corridor, which may not be needed for greenway or road-based transportation purposes.

APPENDIX A

PROJECT VISION AND OBJECTIVES

ARBUTUS GREENWAY VISION

The Arbutus Greenway will be a defining element of Vancouver's urban landscape as a vibrant and beautiful public space for walking, cycling, and streetcar. It will be a destination which fosters both movement and rich social interaction — inspired by nature and the stories of the places it connects.

ARBUTUS GREENWAY PROJECT OBJECTIVES

- Enable safe and comfortable travel between False Creek and the Fraser River for all ages and abilities.
- 2 Ensure the master plan for the future Arbutus Greenway anticipates and dedicates space for a future streetcar.
- Provide flexible, **public spaces** for people to gather, socialize, support community events, and enable artistic expression.
- Enable **connections** within and across neighbourhoods adjacent to the greenway.
- S As the City of Reconciliation, ensure the future Arbutus Greenway will recognize the rich history and cultural diversity of the lands.
- Enhance the City's **biological diversity** and urban ecology.
- **Engage and involve** local stakeholders and citywide residents.
- 8 Ensure the Arbutus Greenway design is **resilient** and adaptable to allow for changing circumstances.
- 9 Allow the Arbutus Greenway to be constructed in phases, to accommodate a variety of funding strategies and changing circumstances.



APPENDIX B

TALK VANCOUVER SURVEY RESULTS

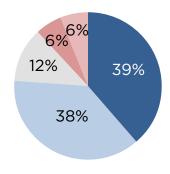
The survey included fourteen questions, focusing on: the proposed design for each character zone (#1 to #9); north and south connections (#11 and #12); and use of potential Excess Lands to pay for the greenway (#13). There was also an open-ended section for additional comments (#14). (*Response percentages may not add up to 100% due to rounding.)

Character Zone 1 | West 6th Avenue / Fir Street to West Broadway

What do you think of the following features in the "Harvest Table" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	42%	35%	17%	1%	4%
Signalized Crossings at Intersections	48%	32%	13%	3%	4%
Public Realm Improvements	42%	34%	14%	4%	6%
Opportunities for Urban Ecology	50%	29%	15%	2%	4%

Overall, what do you think of the proposed design for the "Harvest Table"?



engaging ways to access the space and embed that sense of community."

"Social space, bee keeping and literal harvest table all look like

- "New retaining walls should not overshadow or look into to existing residential or private yards e.g. along W. 5th Avenue."
- "I don't feel that the Harvest Table is inclusive enough. Why not open up the garden so that anyone can enjoy it vs. a small group of people who have their private plots?"
- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it



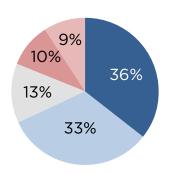


Character Zone 2 | West Broadway to West 16th Avenue

What do you think of the following features in the "Electric Alley" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	50%	32%	10%	2%	5%
Signalized Crossings at Intersections	51%	29%	12%	3%	5%
Public Realm Improvements	40%	28%	14%	9%	9%
Opportunities for Urban Ecology	41%	28%	20%	5%	7%

Overall, what do you think of the proposed design for the "Electric Alley"?



- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it

- "Very excited about the 'Electric Alley'. I'd love to see some 'pop-up' cafes and food trucks."
- "Especially like Electric Ave concept. Saw the Highline in New York and love that mix of art and public space."
- "The only thing I am not so sure about are the large, overhead frames. These look slightly obtrusive. A physical mock-up would help to visualize them."
- "One of the beauties of an urban green path is to be exposed to nature and the expanse of the sky and trees. Creating an industrial framework that effectively encloses the area is actually taking away from nature and this sense of openness."
- "Please be considerate with the lighting, particularly in "Electric Alley", but more generally with all of the lighting choices."



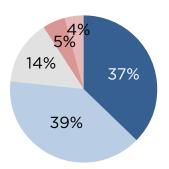


Character Zone 3 | West 16th Avenue to West King Edward Avenue

What do you think of the following features in the "The Ridge" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	42%	36%	16%	2%	3%
Signalized Crossings at Intersections	48%	29%	16%	3%	3%
Public Realm Improvements	44%	31%	16%	4%	5%
Opportunities for Urban Ecology	49%	28%	15%	5%	4%

Overall, what do you think of the proposed design for the "The Ridge"?



- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it

- "Large permanent and temporary art installations from 16th to 25th."
- "Ridge part needs more trees on the traffic side rather than an unpleasant walk along Arbutus St."
- "Should retain/relocate the existing wooden telephone poles especially between 16th and King Ed so as to frame this part of the trail."
- "Seating nooks should be by pedestrian not bicycle paths."
- "Gabion structures [retaining walls made of stacked stones bound together with wire] can be interesting/attractive or ugly. Make them interesting and attractive."



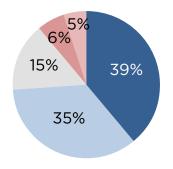


Character Zone 4 | West King Edward Avenue to West 37th Avenue

What do you think of the following features in the "The Woodland Bend" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	41%	34%	17%	3%	5%
Signalized Crossings at Intersections	47%	31%	14%	3%	4%
Public Realm Improvements	44%	26%	16%	8%	5%
Opportunities for Urban Ecology	49%	29%	14%	4%	4%

Overall, what do you think of the proposed design for the "The Woodland Bend"?



- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it

- "Excellent ideas! I love the integration of nature and areas for activities. Parkour park will be very popular with my children!"
- "I personally really like the woodland bend zone. The opened up view to the mountain is gorgeous and please keep that and allow the public to enjoy it."
- "This section should be for quiet reflection, relaxation and the view. Parkour and fitness equipment could be located closer to Quilchena Park where there is easier access."
- "The Woodland Bend portion has a great design for the prestreetcar approach. Living adjacent to the area, it would be an immense turnoff if the only way to implement the streetcar would be to eliminate the (1) non-uniformity of the pathway and (2) the social congregation areas. By uniformness I mean turning it from a varying separated path with new zones of urban ecology, to a simple side by side bike and pedestrian path with a dedicated rail path next to that."



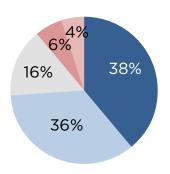


Character Zone 5 | West 37th Avenue to West 49th Avenue

What do you think of the following features in the "KerryDale Pass" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	45%	35%	14%	2%	3%
Signalized Crossings at Intersections	49%	30%	14%	3%	4%
Public Realm Improvements	46%	28%	15%	6%	4%
Opportunities for Urban Ecology	41%	28%	22%	4%	4%

Overall, what do you think of the proposed design for the "KerryDale Pass"?



- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it

- "Greenway is great, our family enjoys biking and walking our way to Kerrisdale and hope it doesn't change too much."
- "Ensure there are enough benches for people wanting to have a snack and a rest while shopping in Kerrisdale."
- "First off, I love it! This feels like a destination itself let alone an access route I hope more will commute on. A few missing items to me: - bikeshare stations (even just a big one in Kerrisdale would be great) - I feel that fixing the road nightmare at 41st and Arbutus should have been part of the plan."
- "Please do not use names like 'KerryDale' and 'Electric Alley'. The Arbutus greenway doesn't need trendy branding."



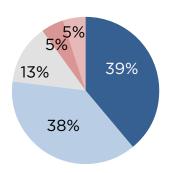


Character Zone 6 | West 49th Avenue to West 57th Avenue

What do you think of the following features in the "Garden Path" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	40%	37%	17%	3%	4%
Signalized Crossings at Intersections	46%	33%	14%	4%	4%
Public Realm Improvements	44%	31%	13%	6%	5%
Opportunities for Urban Ecology	51%	29%	12%	4%	4%

Overall, what do you think of the proposed design for the "Garden Path"?



- "Zone 6 from West Blvd at 54th the path is steep, would like a ramp or carved path."
- "Find a way to add more gardening spaces."
- "W Boulevard in the 57th Ave area could also see an increase in traffic. Street parking should be preserved. Otherwise the plan is quite good."



Really like it

Really dislike it



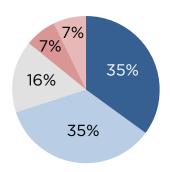


Character Zone 7 | West 57th Avenue to Southwest Marine Drive

What do you think of the following features in the "Marpole Meander" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	42%	34%	18%	3%	4%
Signalized Crossings at Intersections	48%	30%	14%	4%	4%
Public Realm Improvements	42%	27%	15%	8%	8%
Opportunities for Urban Ecology	47%	30%	14%	4%	5%

Overall, what do you think of the proposed design for the "Marpole Meander"?



- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it

- "I would like to see improved access in Zone 7 including paved paths to 69th, 68th, 66th on the west and 66th and 65th East Blvd on the east."
- "It would be great to see more public washrooms and water fountains available along the greenway. While the proposed public realm elements are great, it would be nice to see more 'destination' features as well, such as coffee shops, restaurants, food trucks and buskers dotted along the greenway."
- "Would like to see this area remain as natural as possible (weeds, thorns) with maybe some reference toward our river."



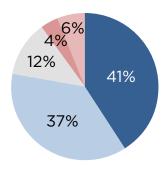


Character Zone 8 | Southwest Marine Drive to Milton Street

What do you think of the following features in the "Lookout" character zone?

DESIGN ELEMENT	REALLY LIKE IT	LIKE IT	NEUTRAL	DISLIKE IT	REALLY DISLIKE IT
Transportation Connections	40%	35%	19%	3%	3%
Signalized Crossings at Intersections	47%	31%	16%	2%	4%
Public Realm Improvements	52%	25%	12%	5%	6%
Opportunities for Urban Ecology	49%	28%	15%	4%	4%

Overall, what do you think of the proposed design for the "Lookout"?



- Really like it
- Like it
- Neutral
- Dislike it
- Really dislike it

- "I love the lookout. It's my favorite feature and I love that it appears to be wheelchair accessible."
- "I wish the lookout platform was a bit bigger, and perhaps had some seating and rain cover. Otherwise, love these plans!"
- "The Lookout tower also looks really cool—well done. That area would definitely benefit from connections to the Fraser River so I hope that is a medium (not long) term priority. In the very short term, could you improve the crossing of Southwest Marine Drive?"
- "A direct connection from Zone 8 to the Marine Drive Canada Line station, ideally both a dedicated bike lane, walking path, and transit route extension to a bus route currently ending at Marine Drive (and a similar extension route from Zone 1 to Granville Island), would complete the connector function of this greenway and maximize ease of mobility between neighbourhoods."



Additional Comments about the Proposed Design

THEMES	EXAMPLES OF PARTICIPANT COMMENTS
Transportation Design	 "The potential for a streetcar is the most exciting thing!" "It is critical to maintain good wheelchair accessibility for the whole greenway. This means a smooth stable surface. Otherwise the surface is too rough for those in wheelchairs who have pain issues. There must be sufficient width for wheelchairs with any amenities along the way accessible."
Support Proposed Design	 "I love that bike and pedestrian traffic is separated, and that there are places to sit, and all sorts of gardens to enjoy. Bravo!" "Keep up the great work - what a wonderful addition to the city and a great opportunity to help us all be healthier. Can't wait." "I appreciate the thought put into this. The areas for quiet and the areas for play are wonderful."
Urban Ecology	 "I am so happy to see that every opportunity is being taken to integrate urban ecology into this plan! With our city becoming ever more densified, I believe that green space is priceless." "I really like the proposals for enhancing biodiversity, but perhaps also incorporate trees and plantings that are larger in scale and provide shade for people and wildlife; water features for people to dip their toes in and for wildlife to drink from; and vertical gardens to provide green space in three dimensions."
Urban Agriculture	 "Increase in total area of community gardens. They are an important benefit for the neighbourhood. Find other areas along the corridor for food gardens." "As a member of Maple Community Garden I note that our garden will be moved north of the old tracks. I appreciate and support the changes you suggest. Some things I would like to reinforce for planning are to collaborate with our garden executive to fine tune the plans." "There should be some guidelines and design features or options like size of plots pathways, fences, gates, water, storage that are in common but flexibility and creativity needs to be offered to enhanced the best features of each community garden."



THEMES	EXAMPLES OF PARTICIPANT COMMENTS
Simple Design	 "People are happy with a path to walk, bike, walk dogs, or wheel strollers on. Just make it safe, green, and attractive and it will be used." "The only thing I am not so sure about are the large, overhead frames depicted in the Electric Alley design. These look slightly obtrusive. A physical mock-up would help to visualize them." "Keep it simple and natural."
Amenities	 "It would be great to have more public washrooms along the route. I also love the cafe idea in Kerrisdale." "With more and more people using the greenway, please have more garbage and recycling than there is now." "Can we have more covered-seating areas, and warm + dry material to sit on (e.g. wood vs. concrete) to encourage rainy-day use?"
Lighting	 "Please include some subtle path lighting. Doesn't need to be floodlights, but some sections are so dark that they are very hard to bike at night, even with a bike light." "Lighting for safety is good but I disagree with anything that increases light pollution unnecessarily." "I live at West 12th. I am concerned that the overhead lighting will keep me awake at night."
Other Ideas	 "Please don't forget to provide opportunities for showcasing and learning from First Nations culture." "The success of this proposal seems to be contingent on having an open dialogue and collaborating with the property owners that are right up against the greenway." "ILOVE the streetcar idea. I wish we'd have streetcars throughout all of Vancouver. I also wish East Van could have such gorgeous thoughtful design elements for its greenways."





North Greenway Connection

How would you prioritize the following transportation connections that are proposed for the northern end of the greenway?

	HIGH PRIORITY	MEDIUM PRIORITY	LOW PRIORITY	DON'T KNOW
Future walking route to Granville Island under Fir St Off-Ramp	46%	31%	16%	6%
Future walking/cycling route to False Creek via Pine St and W 1st Ave	38%	32%	23%	7%
Multiple future walking/cycling routes to Granville Bridge via W 5th Ave	27%	34%	31%	7%

Do you have any other comments about the proposed design? Examples of comments specific to the northern connection:

- "I am mostly interested in being able to continuously bike from the Arbutus Greenway north to Kits Point. Granville Island, and downtown."
- "I didn't see proposals on how to get the streetcar down to Granville Island as that seems like a missed opportunity."
- It appears that there are not relatively direct connections to Granville Island and the seawall eastbound. It would help if 2nd Ave were uses for this purpose between Pine and Anderson. Also, it would be good to have a bypass connection from 5th/Granville to east."





Southern Greenway Connection

How would you prioritize the following transportation connections that are proposed for the southern end of the greenway?

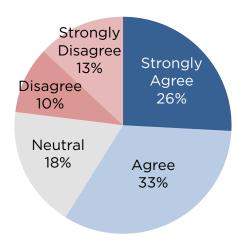
	HIGH PRIORITY	MEDIUM PRIORITY	LOW PRIORITY	DON'T KNOW
Multiple future extensions to the Fraser River, including Hudson St Park and Fraser River Park	31%	31%	20%	18%
Connection to Marine Dr Station via W 67th Ave & W 68th Ave	27%	34%	20%	19%
Connection to Canada Line Bridge and Kent Ave bike route	41%	26%	16%	16%
Connection to Arthur Laing Bridge/Richmond	24%	29%	29%	18%

- "I hope that the greenway will be extended as a cycling/walking route right to the Fraser River without having to use the sidewalks along a very busy road."
- "Please find a solution to continue greenway at same AAA [all ages and abilities] quality in Marpole to connect to new Fraser river parks & Oak St bridge. Many comments, but having AAA connections & no gaps at both ends is so important to maintain quality, it's worth the extra work now."
- "Some connections identified already exist, e.g. Milton to Bentley. It is very steep with no sidewalks. If this means the city would improve the roads and put in sidewalks, wonderful. Similarly with the route between the Greenway and Marine Drive Station. I often walk along 67th and 68th Ave. There are many intersections without curb cuts (not accessible for wheelchairs and walkers). If this plan would mean improvements, and perhaps more signals, that would be wonderful."



Excess Lands

To what extent do you agree or disagree with developing Excess Lands to help fund the purchase of the corridor and construction of the future greenway?



General Comments about the Project

Do you have any other comments about the proposed design for the future **Arbutus Greenway?**

THEMES	EXAMPLES OF PARTICIPANT COMMENTS
Agree with Using Excess Lands to Fund the Greenway	 "Selling the Excess Lands is a good way to fund the project." "If parts of East Boulevard could contribute to the Greenway, by providing either space or funding, I'd be all for it." "Perhaps this is more general but I would say that money for developing the greenway should perhaps come from higher property taxes. That said, 'developing Excess Lands' is reasonable but should be done with prudence and gradually."



THEMES	EXAMPLES OF PARTICIPANT COMMENTS
Disagree with Developing Excess Lands to Fund the Greenway	 "All of this land is precious to the public of Vancouver. As this city continues to develop and the population continues to grow, open public green spaces will be more and more essential for a decent quality of life in the city. We are very fortunate to have gotten these lands back in public control to be used for public benefit. Do not let them go. Find other sources of funding from the tax and development base." "Removing a section of East Boulevard that currently serves the high school and which is also an important stream of traffic that prevents West Boulevard from getting too congested, is a big mistake in my opinion."
Questions about Excess Lands	 "I am not sure about the funding using Excess Lands, this needs to be made a bit clearer. Does it mean building housing? Shops? Restaurants?" "Would the City still own these lands? Rent them out? Use them as public spaces to be booked (is that even appropriate there?). My priority would be to maximize profits without sacrificing character." "Has the city published a timeline for development?" "What is happening to the parking lot from 41st to 39th on West Boulevard?"
Other Comments About Excess Lands	 "If the city does allow development of Excess Lands, we need to ensure it doesn't take away from the nature of the arbutus corridor, and that the "atmosphere" of the corridor is maintained." "Excess Lands should focus on social or co-op housing not profit." "Re-development of Excess Lands should focus on providing more '3rd space' businesses: coffee shops, restaurants, etc., which could be destinations for greenway users and for local residents." "I know opinions vary but I am happy to pay more in property tax for projects like this."



THEMES

EXAMPLES OF PARTICIPANT COMMENTS

Support Arbutus Greenway **Project**

- "This is a great opportunity to improve the livability of the city and show how it can be done in other areas of the city."
- "I really like the idea of a variety of gathering places with tables, chairs, public art, etc. Vancouver needs more places where people can connect without having to spend money."
- "The Arbutus Greenway is already a huge success, so enhancing it is a wonderful idea."
- "I think the project is great overall, I hope to see it realized to its full potential with quality build materials and attractive art & lighting. I also hope to see the streetcar/rapid transit element come to fruition sooner rather than later."

Other Ideas

- "Please include Indigenous art, culture, and history. Honor the first people."
- "Please prioritize ecological restoration where possible. It would be great to have a more detailed explanation of urban ecology."
- "Some of the crossings of the greenway over major streets are still tricky, such as at Arbutus and 16th. Priority should be in the plan to ensure the crossings are upgraded to support the cycling and walking traffic."







Who Participated

How would you prioritize the following transportation connections that are proposed for the northern end of the greenway?

PLACE OF RESIDENCE	
Arbutus Ridge	4%
Downtown	6%
Dunbar Southlands	4%
Fairview	11%
Grandview Woodland	4%
Hastings Sunrise	1%
Kensington Cedar Cottage	3%
Kerrisdale	8%
Killarney	1%
Kitsilano	25%
Marpole	4%
Mount Pleasant	5%
Oakridge	1%
Renfrew Collingwood	1%
Riley Park	3%
Shaughnessy	2%
South Cambie	1%
Strathcona	1%
Sunset	2%
Victoria Fraserview	1%
West End	7%
West Point Grey	3%
Other / Live outside Vancouver	3%

AGE	
19 and under	0%
"20-29"	9%
"30-39"	18%
"40-49"	18%
"50-59"	21%
"60-69"	22%
70+	10%

GENDER	
Male	47%
Female	48%
Transgender	0%
Other/None of the above	0%
Prefer not to say	4%

MODE OF TRANSPORTATION		
Walk	22%	
Walk or wheel using an assistive device	1%	
Bicycle	17%	
Transit	22%	
Driver or passenger	34%	
Other	3%	



APPENDIX C

FEEDBACK FROM ADVISORY COMMITTEES

ADVISORY COMMITTEES	FEEDBACK
Active Transportation Policy Council - Project Sub-	As this Advisory Committee meeting was a working session, there were no minutes.
Committee April 18, 2018	 Mike Anderson, Transportation Engineer, and Akber Pabani, Project Engineer, gave a presentation on the proposed design. Committee members provided the following comments and questions: Consider improving the pedestrian connection to Granville Bridge. Will the bike and pedestrian paths be vertically separated? Will there be green infrastructure, especially once the
	streetcar is installed?
Seniors Advisory Committee April 20, 2018	As this Advisory Committee meeting was a working session, there were no minutes.
	Akber Pabani, Project Engineer and Ian Stewart, Landscape Architect, gave a presentation on the proposed design. Committee members provided the following comments and questions:
	 Once the streetcar scheduling has been determined, please involve the committee to advise on streetcar accessibility elements. Committee appreciates that most of their inputs have been incorporated in the designs.
Children, Youth, and Families	Excerpt from minutes:
Advisory Committee April 26, 2018	"Akber Pabani, Project Engineer, Arbutus Greenway, and Danielle Enright, Planning Assistant, Arbutus Greenway, provided a presentation on the progress of the Arbutus Greenway project as well as an overview of next steps.



ADVISORY COMMITTEES FEEDBACK Excerpt from minutes: **Urban Indigenous Peoples' Advisory Committee** "Maggie Buttle, Project Manager, Arbutus Greenway May 14, 2018 Project, provided a review of the consultation with the Musqueam, Squamish and Tsleil-Waututh, and presented preliminary plans, noting these are subject to change as consultation continues. In discussion, Committee members expressed appreciation for staff's work on this project and agreed that it was on the right track. Committee members also noted that opportunities to learn from First Nations along the way, as well as more Indigenous names for the various segments, would be appropriate." Persons' with Disabilities As this Advisory Committee meeting was a working session there were no minutes. **Advisory Committee -Accessible City Advisory Sub-**Mike Anderson, Transportation Engineer, and Paul **Committee** Storer, Branch Manager - Transportation Design, gave a presentation regarding the proposed design and May 15, 2018 responded to guestions. Committee members provided the following comments and questions: • What is the timeline for construction and what are the implementation criteria? • Consider integrating accessible parking and furniture into the design.





vancouver.ca/arbutusgreenway

Appendix B







Appendix B -Arbutus Greenway Design Vision

July 2018



VISION STATEMENT

The Arbutus Greenway will be a defining element of Vancouver's urban landscape as a vibrant and beautiful public space for walking, wheeling, cycling, and streetcar.

It will be a destination which fosters both movement and rich social interaction - inspired by nature and the stories of the places it connects.

PROJECT OBJECTIVES

- 1. Enable safe and comfortable travel between False Creek and the Fraser River for all ages and abilities.
- 2. Ensure the master plan for the future Arbutus Greenway anticipates and dedicates space for a future streetcar.
- 3. Provide flexible public spaces for people to gather, socialize, support community events, and enable artistic expression.
- 4. Enable connections within and across neighbourhoods adjacent to the greenway.
- 5. As the City of Reconciliation, ensure the future Arbutus Greenway will recognize the rich history and cultural diversity of the lands.
- 6. Enhance the City's biological diversity and urban ecology.
- 7. Engage and involve local stakeholders and citywide residents.
- 8. Ensure the Arbutus Greenway design is resilient and adaptable to allow for changing circumstances.
- 9. Allow the Arbutus Greenway to be constructed in phases, to accommodate a variety of funding strategies and changing circumstances.

Introduction

The origins of the Arbutus Greenway can be traced back to the City's 1995 Greenway Plan within which Arbutus Way was identified as "the most desireable Greenway route next to the waterfront routes". Twenty one years later, in 2016, the City of Vancouver purchased the Arbutus railway corrdior from Canadian Pacific Railway for the purpose of creating a high-quality public space for walking, cycling, and future streetcar that connects people, parks, and places from False Creek to the Fraser River.

This document provides a summary of the design vision for the Arbutus Greenway: a vision that is the culmination of a two-year planning, design and engagement process. Public engagement has underpinned the Arbutus Greenway design process, influencing the vision for the future greenway and identifying a broad suite of design ideas that the project team have incorporated within the project. Since 2016, the City has held 50-plus events and had more than 7,000 participant interactions, helping to shape the development of the designs thus far.

Traveling through eight distinct character zones, the Arbutus Greenway provides a range of experiences and spatial qualities. The design concepts represented on the following pages take inspiration from distinct neighbourhood characteristics and features as well as adjacent parks, distant views, and places where people can come together.

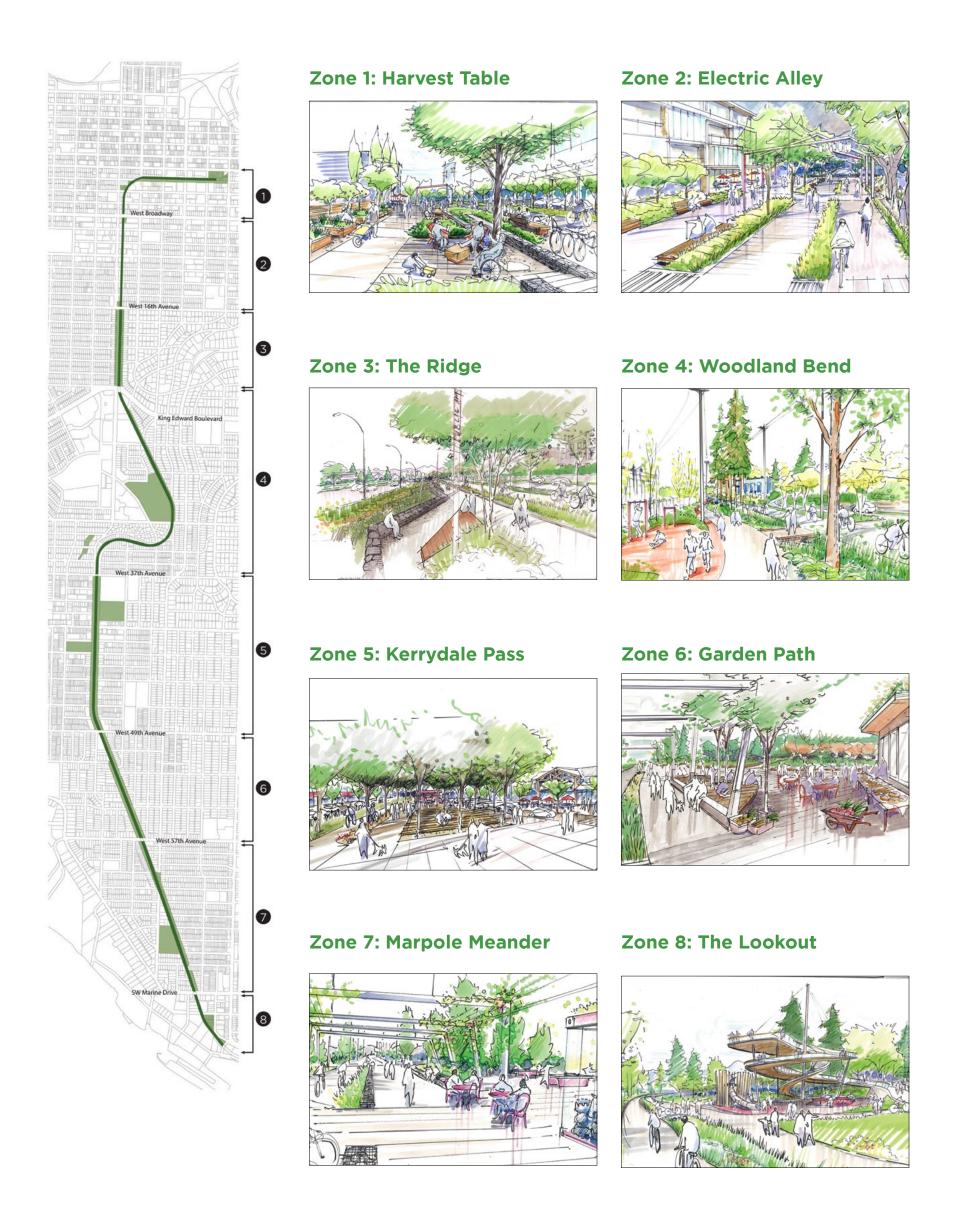
The Arbutus Greenway Design Vision also acknowledges that the greenway is situated on the unceded traditional homelands of Musqueam, Squamish, and Tsleil-Waututh (MST) Nations. As such our commitment to MST Nations is that we will continue to collaborate with them on the overall design of the future greenway, and ensure the design recognizes the history and cultural diversity of the lands.

While this design vision provides a high level direction for the development of the Arbutus Greenway, we anticipate that the detailed design of each of the eight character zones will continue to elaborate on this vision and will include further opportunities for public involvement.

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Overview of Character Zone Themes





DESIGN THEME: HARVEST TABLE

The Harvest Table is a place of coming together to convene over urban agriculture and food. The existing community gardens play an instrumental role in the experience of the zone and two city parks (Delamont, West 6th and Fir) adjacent to the greenway provide places for people to pause, relax and recreate. Harvest tables offer places for people to socialize and enjoy a picnic. Architectural structures at select locations mark gateways onto the greenway, and provide opportunities for public art and overhead lighting.



DESIGN HIGHLIGHTS

Public realm improvements:

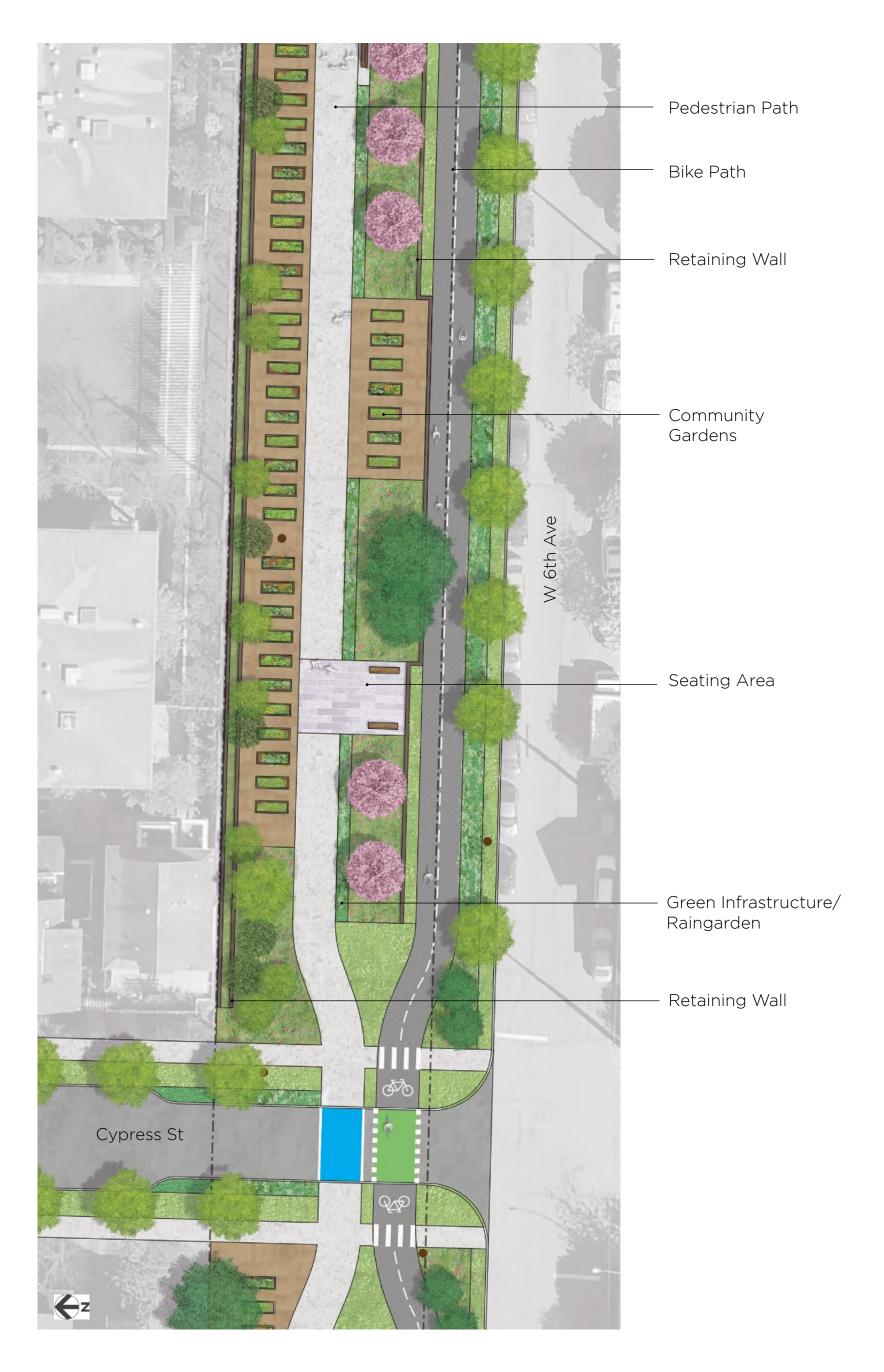
- Benches, a public washroom and other landscape furniture
- Harvest tables for picnics and community gatherings
- Small plaza at Burrard St
- Wildlife habitat and raingardens

Transportation Improvements

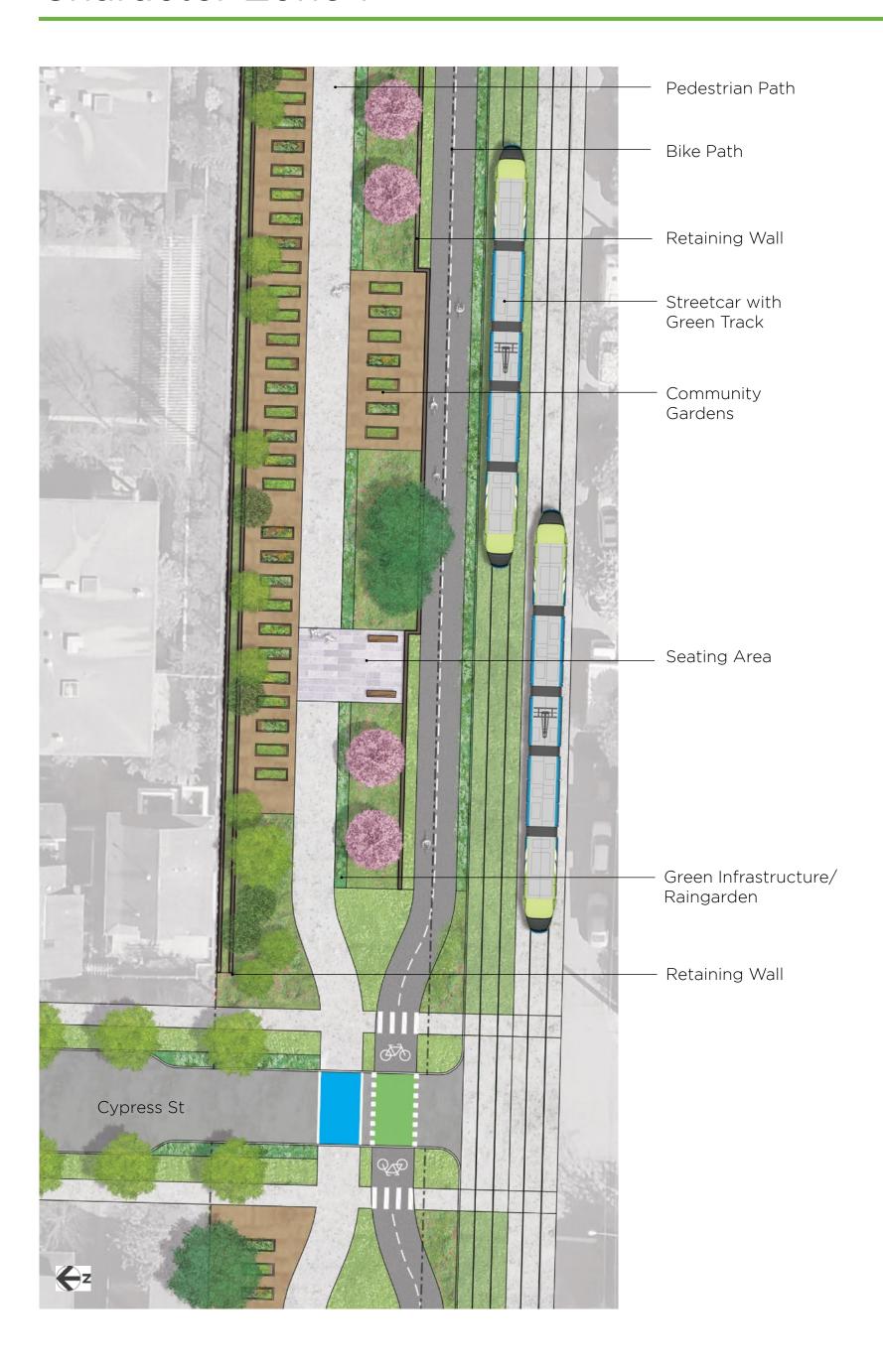
- 3.5 metre walking and cycling paths
- Physical separation between pedestrians and cyclists
- New signalized crossings at Burrard St and W Broadway
- Connections to False Creek and Granville Island
- Dark Sky compliant pathway lighting

PUBLIC FEEDBACK

- Provide places to sit and relax: "Places to sit, hang out, and have a conversation" and "seating (formal and informal) in sunny spaces close to amenities"
- Integrate food production into design: "Recognize connection to food"
- Be mindful of neighbouring properties for the location of the harvest table.

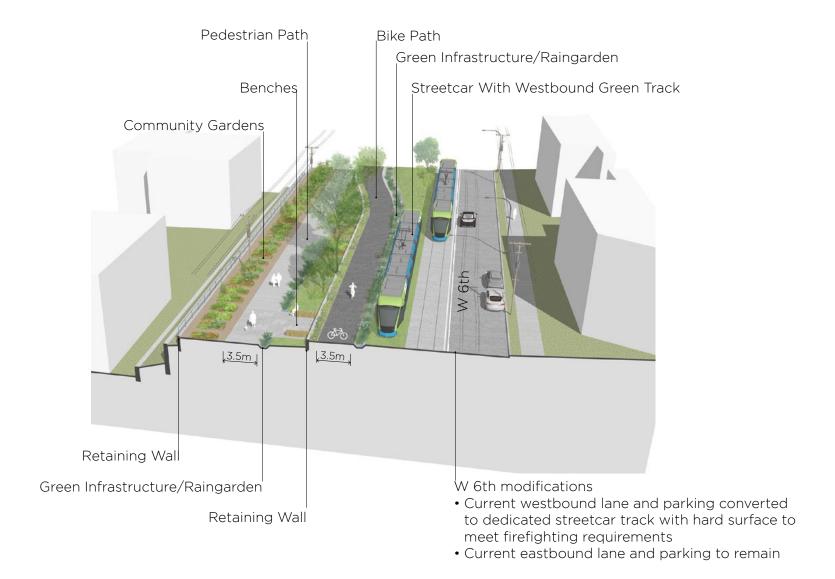


PRE-STREETCAR PLAN VIEW





PRE-STREETCAR 3D MODEL



POST-STREETCAR 3D MODEL



DESIGN THEME: ELECTRIC ALLEY

Electric Alley is the narrowest section (15m) of the greenway and is named after the only remaining interurban power poles along the corridor. It provides a series of garden rooms for seating, public art and native planting that provide respite and enhance the zone's ecology. Small plazas at W Broadway and W 16th Ave mark gateways into the zone. Architectural structures at select locations provide opportunities for overhead lighting, planting and public art. Future development along the west side of the greenway could include a coffee shop/cafe fronting the greenway and offer a place to stop for a drink or a snack.



DESIGN HIGHLIGHTS

Public realm improvements:

- Architectural elements for gateways, lighting, and public art
- Small plazas at W Broadway and W 16th Ave
- Benches, a public washroom and other landscape furniture
- Trees, wildlife habitat and raingardens

Transportation Improvements

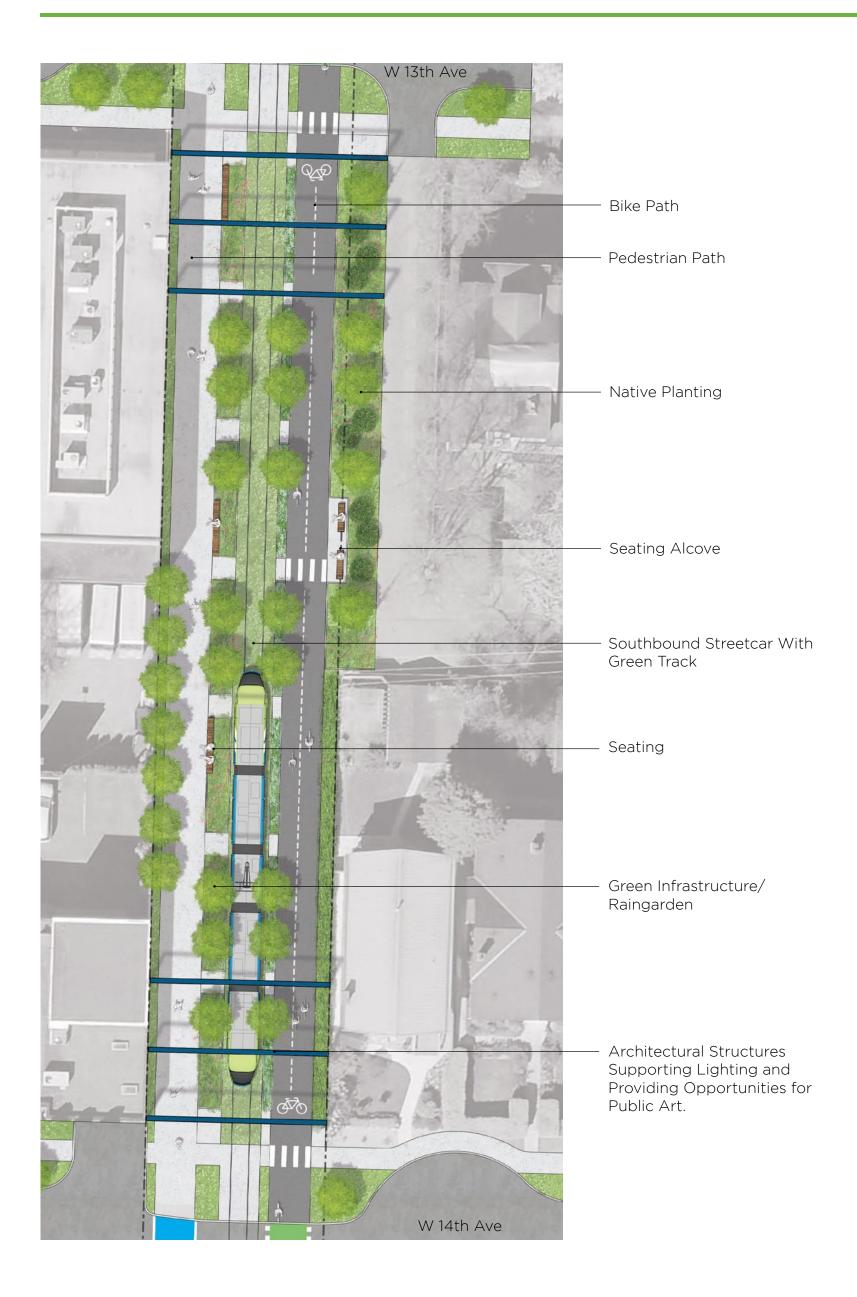
- 3.5 metre walking and cycling paths
- Physical separation between pedestrians and cyclists
- New signalized crossings at W Broadway and W 12th Ave
- Connections to W 10th Ave bike route and future W 14th Ave bike route
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences

PUBLIC FEEDBACK

- Create different rooms: "Different spaces, different functions, some more urban, some more immersive in nature"
- Connect to the greenway: "Create nodes where bike/bus routes and commercial areas intersect, and provide seating, maps, and shelter"
- Be mindful of neighboring properties "Please be considerate with the lighting, particularly in Electric Alley, but more generally with all the lighting choices"

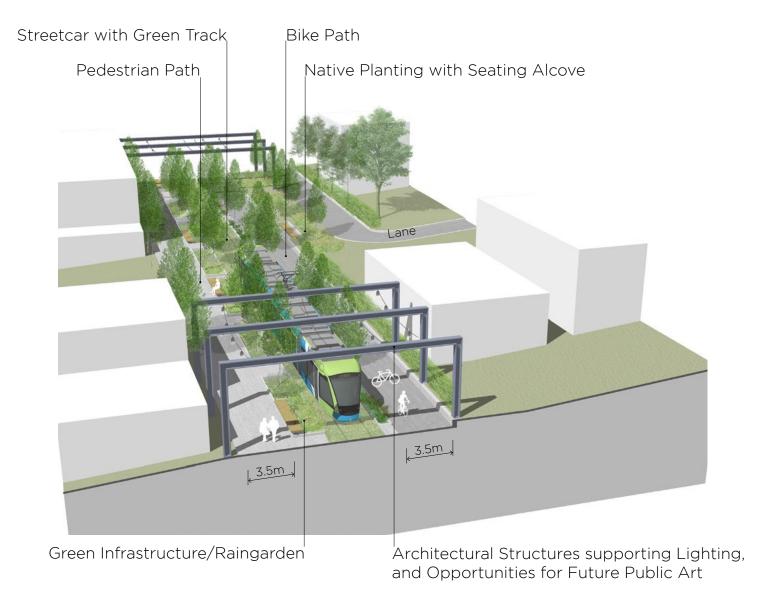


PRE-STREETCAR PLAN VIEW





PRE-STREETCAR 3D MODEL



Post-Streetcar 3D Model



DESIGN THEME: THE RIDGE

The Ridge is the most expansive section of the greenway with panoramic views to English Bay and the distant mountains. The eastern half of the zone sits considerably higher than Arbutus Street and is defined by a series of bold, angular landforms and retaining walls that create promontories for people to sit, relax, and enjoy the views, as well as accomodate public art. Native plants are used extensively, including pollinator-friendly plants, to provide habitat for birds and bees, and to enhance the zone's ecology.



DESIGN HIGHLIGHTS

Public realm improvements:

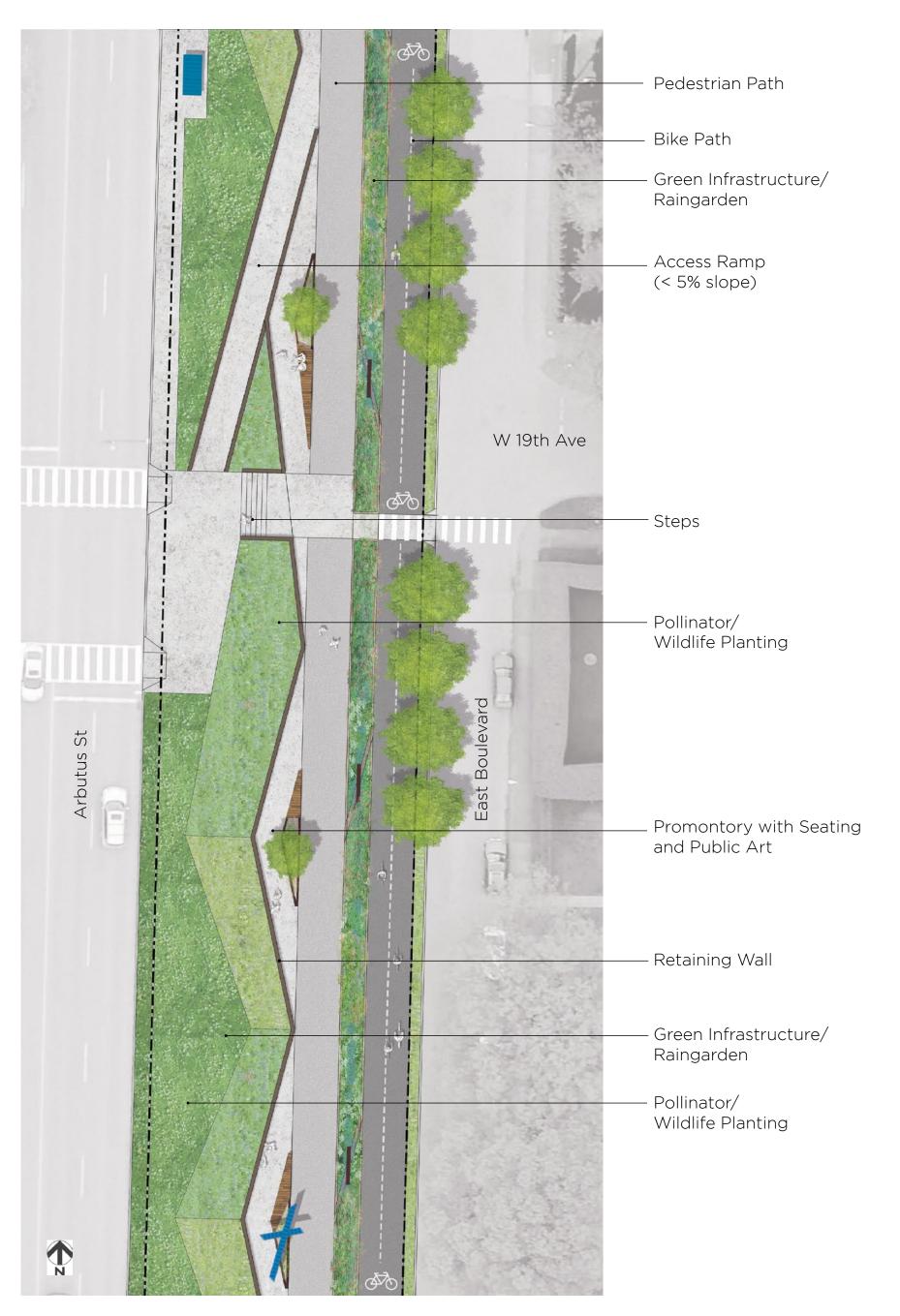
- Angular promontories for seating and public art
- Benches, a public washroom and other landscape furniture
- Wildlife habitat and raingardens
- Small grassy knoll at West King Edward Ave.

Transportation Improvements

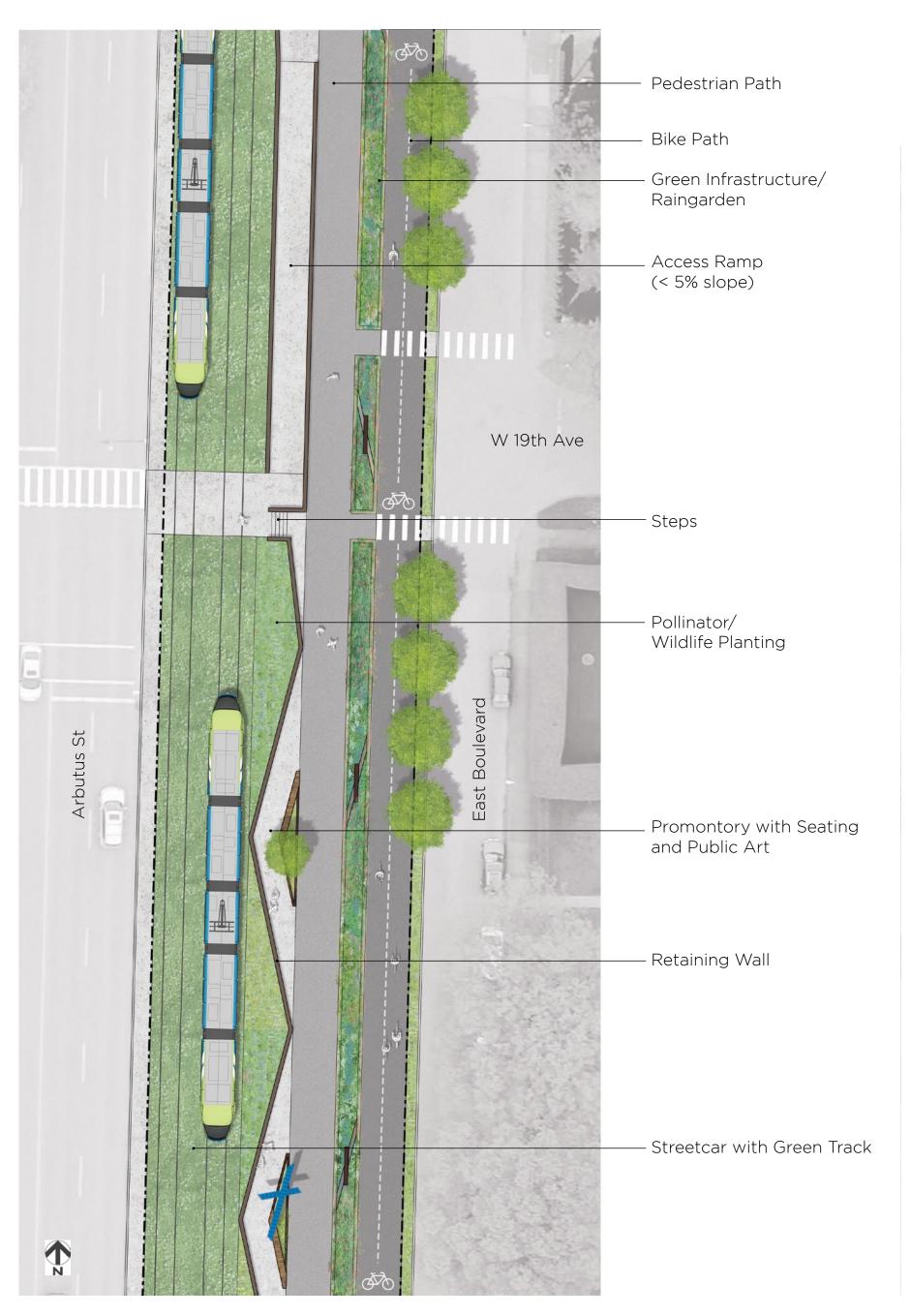
- 3.5 metre walking and cycling paths
- Fully-accessible connection to Arbutus St at W 20th Ave
- Physical separation between pedestrians and cyclists
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences
- Enhanced connections from adjacent neighbourhoods

PUBLIC FEEDBACK

- Ensure "accessibility both on the greenway and getting to/from the greenway"
- Support biodiversity: "Create pollinator hotels"
- Showcase views: "Frame views and vistas"
- Incorporate public art: "Permanent and temporary art installations from 16th to 25th"



PRE-STREETCAR PLAN VIEW



POST-STREETCAR PLAN VIEW



PRE-STREETCAR 3D MODEL



POST-STREETCAR 3D MODEL



Design Theme: Woodland bend

The Woodland Bend is the quietest zone along the greenway as it is removed from major streets. The design leverages the existing mature trees in the adjacent Shaugnessy neighbourhood and in Quilchena Park to re-establish an immersive Pacific Northwest forest experience, complete with coniferous and deciduous trees. The winding pedestrian path includes a fitness circuit and parkour course that add recreational choices to the zone. Lookout points and seating areas between West 33rd Ave and West 37th Avenue take advantage of views to the North Shore Mountains.



DESIGN HIGHLIGHTS

Public realm improvements:

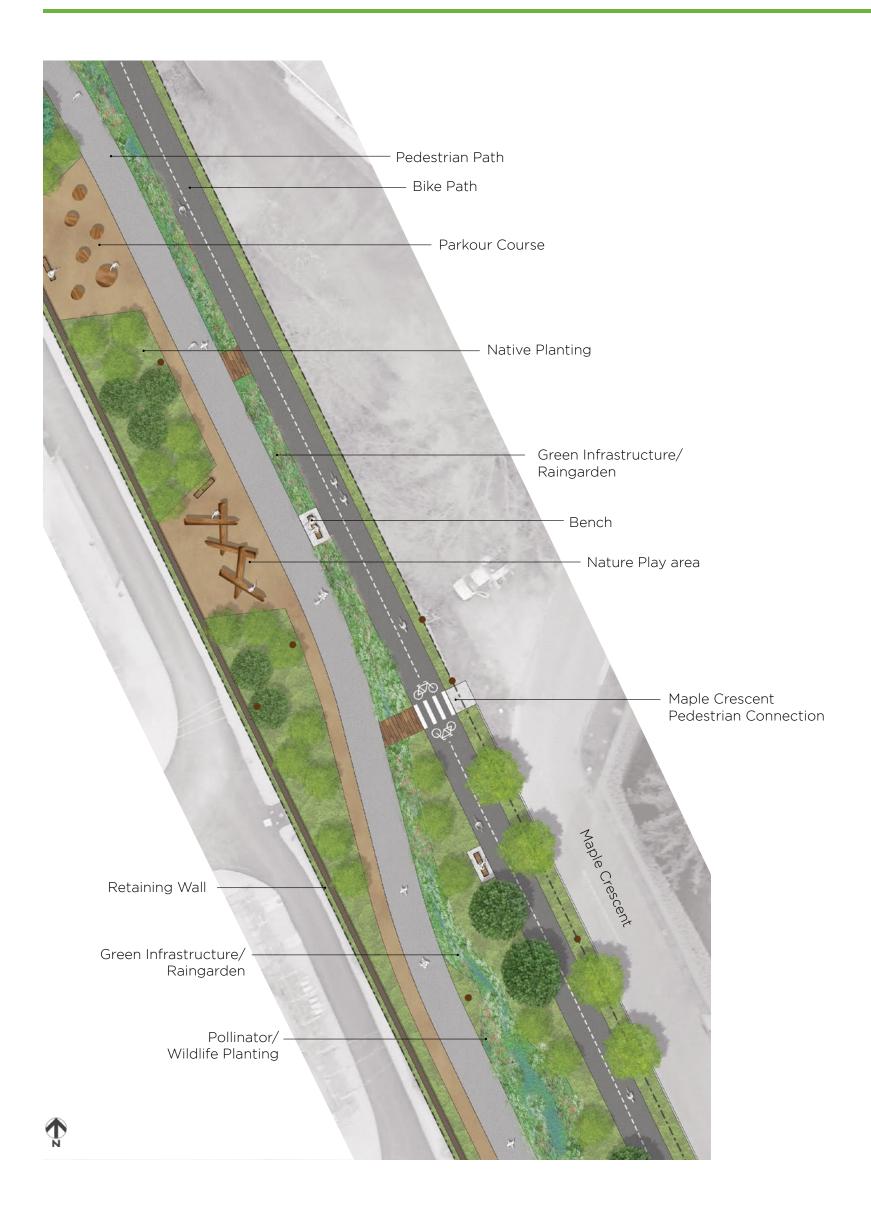
- Pacific Northwest forest canopy
- Benches and other landscape furniture
- Lookout points
- Fitness equipment and parkour course
- Nature play

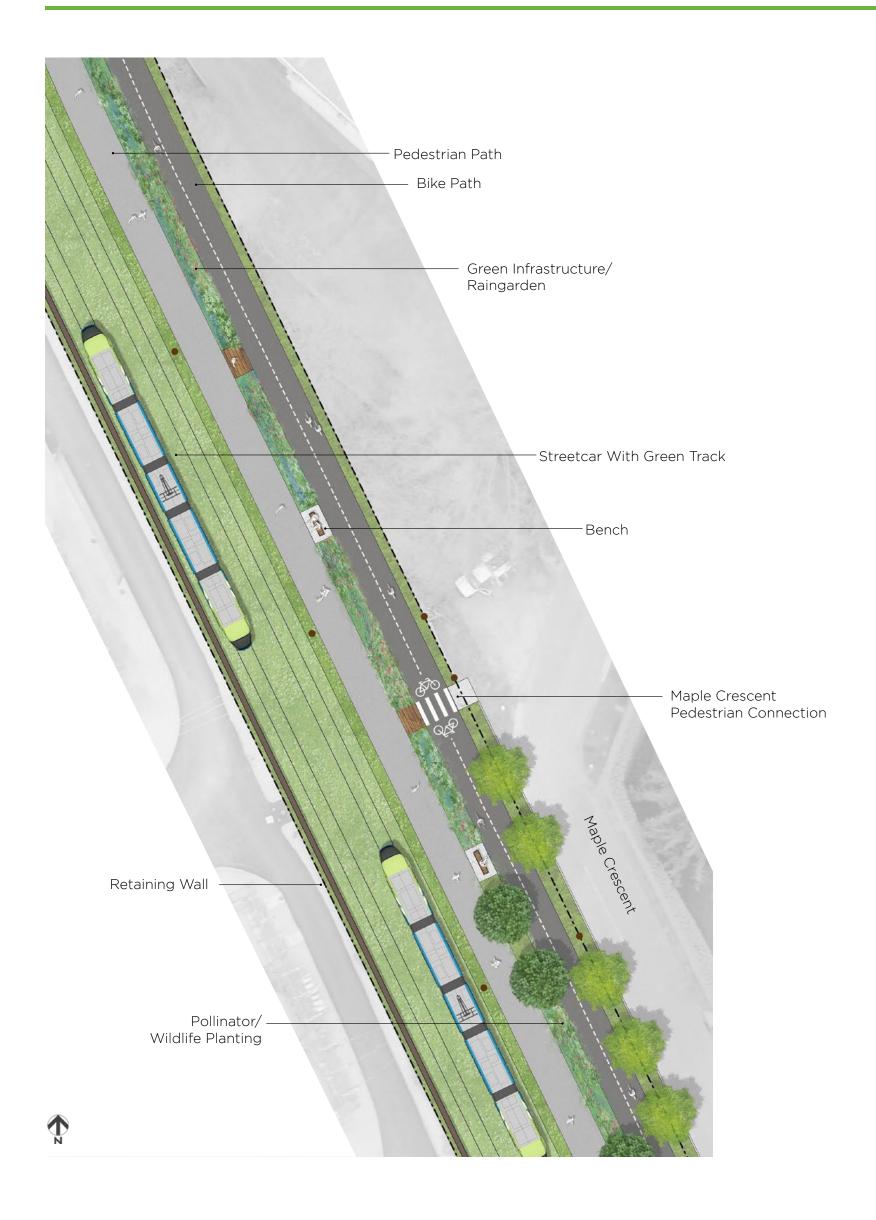
Transportation Improvements

- 3.5 metre walking and cycling paths
- Physical separation between pedestrians and cyclists
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences
- Enhanced connections from adjacent neighbourhoods

PUBLIC FEEDBACK

- Showcase views: "I personally really like the Woodland Bend, the opened up view to the mountains is gorgeous. Please keep that and allow the public to enjoy it.
- Provide places to play: "Would be great to have some type of exercise stations along the way"
- Use "Indigenous species in landscaping"







PRE-STREETCAR 3D MODEL



Post-Streetcar 3D Model



DESIGN THEME: KERRYDALE PASS

Kerrydale Pass marks both the middle and highest points along the greenway. It passes through Kerrisdale, the largest retail and civic hub on the greenway. A public plaza on the north side of West 41st Ave provides a vibrant gathering area for programming, performances, entertainment, and celebrations. To the south of West 41st Ave notable features include a variety of seating areas, informal landscaped areas comprised of native and non-native plants, and a potential site for a small, annual garden design competition.



DESIGN HIGHLIGHTS

Public realm improvements:

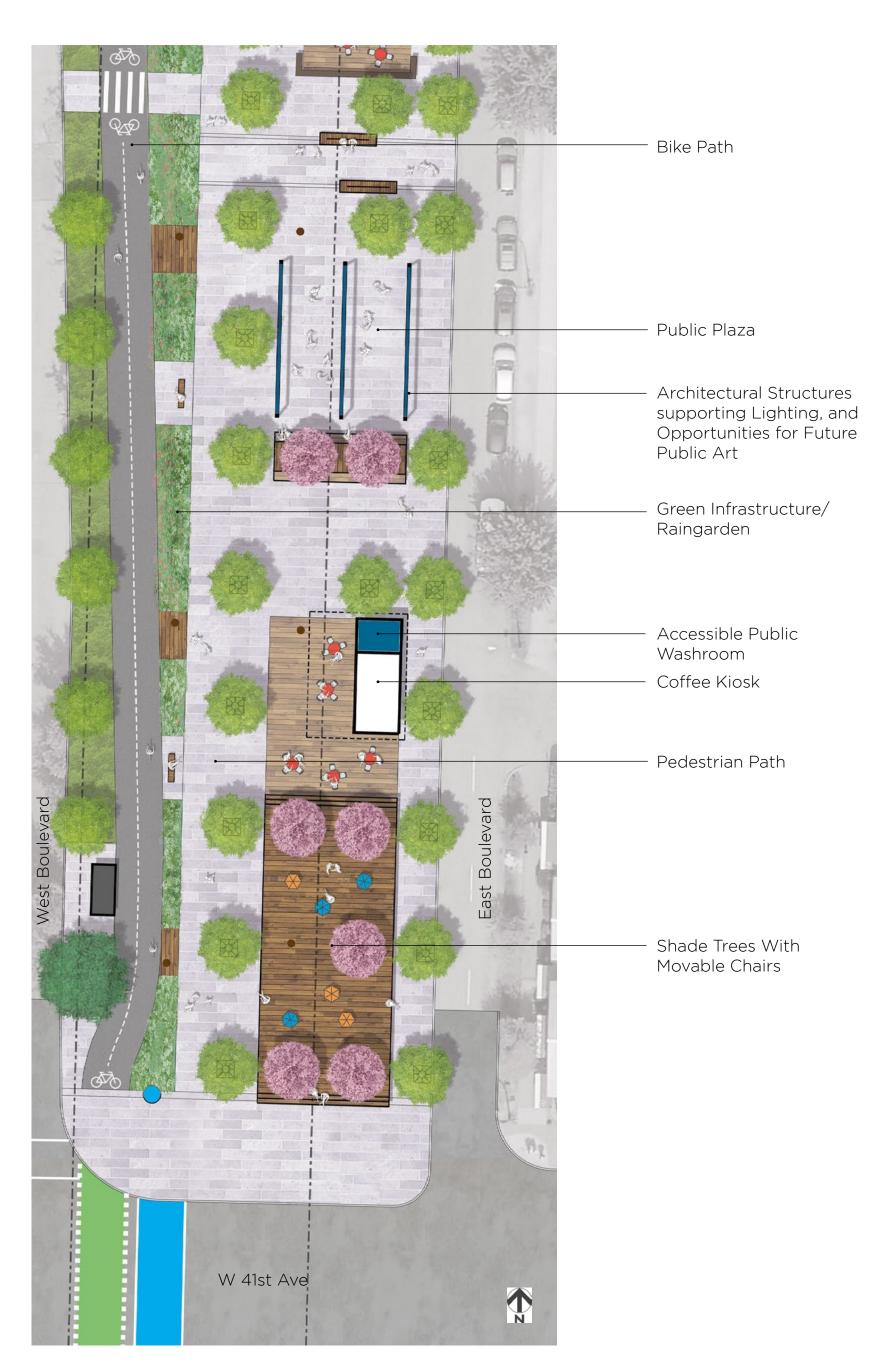
- Public Plaza with possible coffee kiosk
- Moveable tables and chairs for outdoor dining
- Dark Sky compliant lighting
- A variety of seating areas
- Benches and other landscape amenities

Transportation Improvements

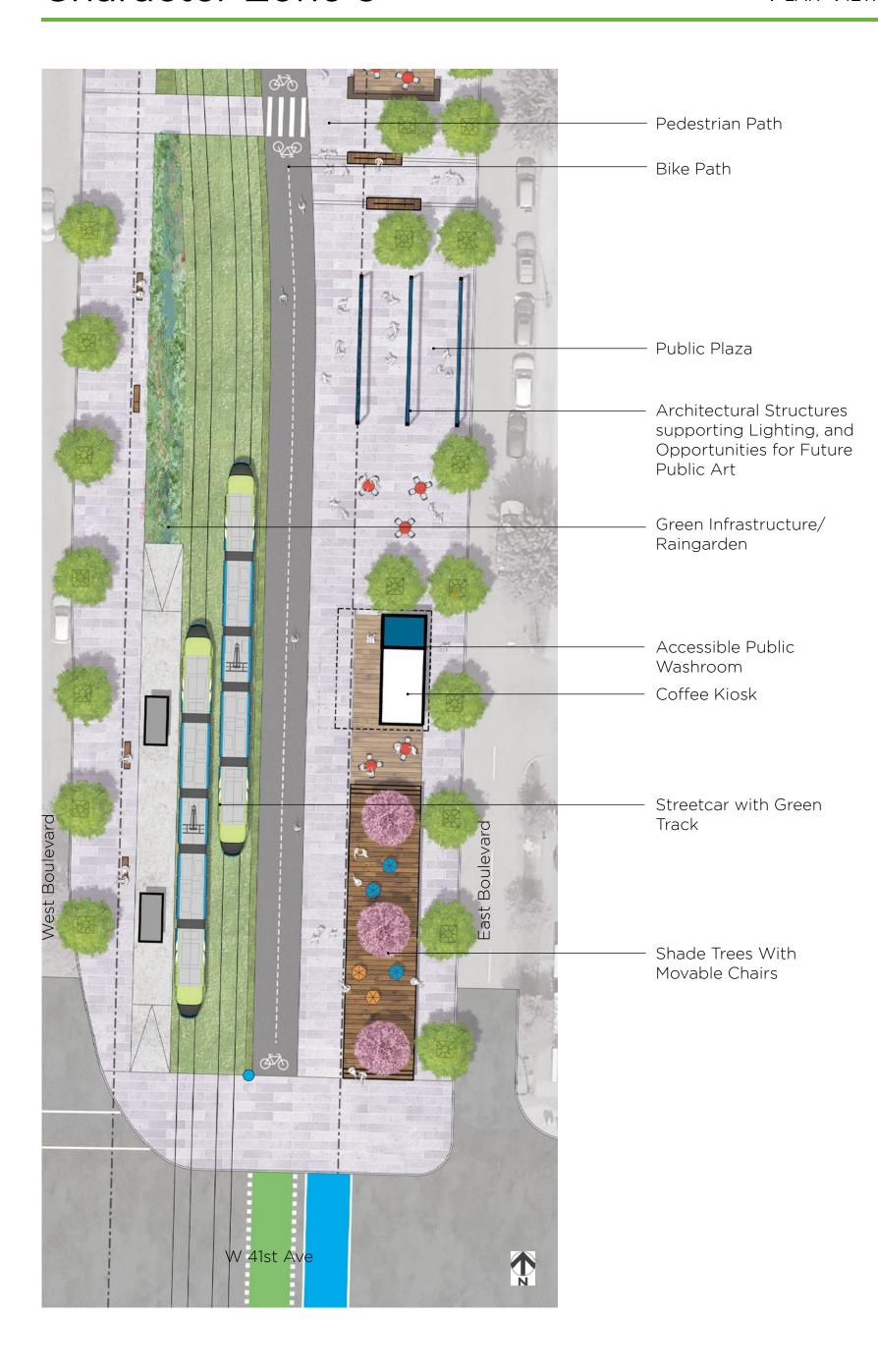
- 4 meter and 3.5 metre wide walking and cycling paths
- Physical separation between pedestrians and cyclists
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences
- Enhanced connections from adjacent neighbourhoods

Public Feedback

- Provide places to eat and drink: "Allow cafes and coffee shops on the greenway"
- Provide places to sit: "Ensure there are enough benches for people wanting to have a rest while in Kerrisdale"
- Celebrate distinct "Greenway Villages Kerrisdale has food and shops"



PRE-STREETCAR PLAN VIEW





PRE-STREETCAR 3D MODEL



POST-STREETCAR 3D MODEL



DESIGN THEME: GARDEN PATH

Garden Path celebrates the existing and historically noteworthy Victory Gardens located along the east side of the greenway, by making urban agriculture and urban ecology central themes. Extensive plantings of wildflowers and native grasses create a colourful, seasonally varied, pastoral experience and enhance the zone's biodiversity. A small community gathering area has been added at West 54th Avenue, as well as numerous seating areas, insect hotels and edible landscaping along the length of the zone.



Design Highlights

Public realm improvements:

- Community gathering area at West 54th Ave including tables and chairs
- Constructed wetland at West 54th Ave
- Dark Sky compliant lighting, benches, and other landscape amenities
- Extensive plantings of wildflowers and native grasses

Transportation Improvements

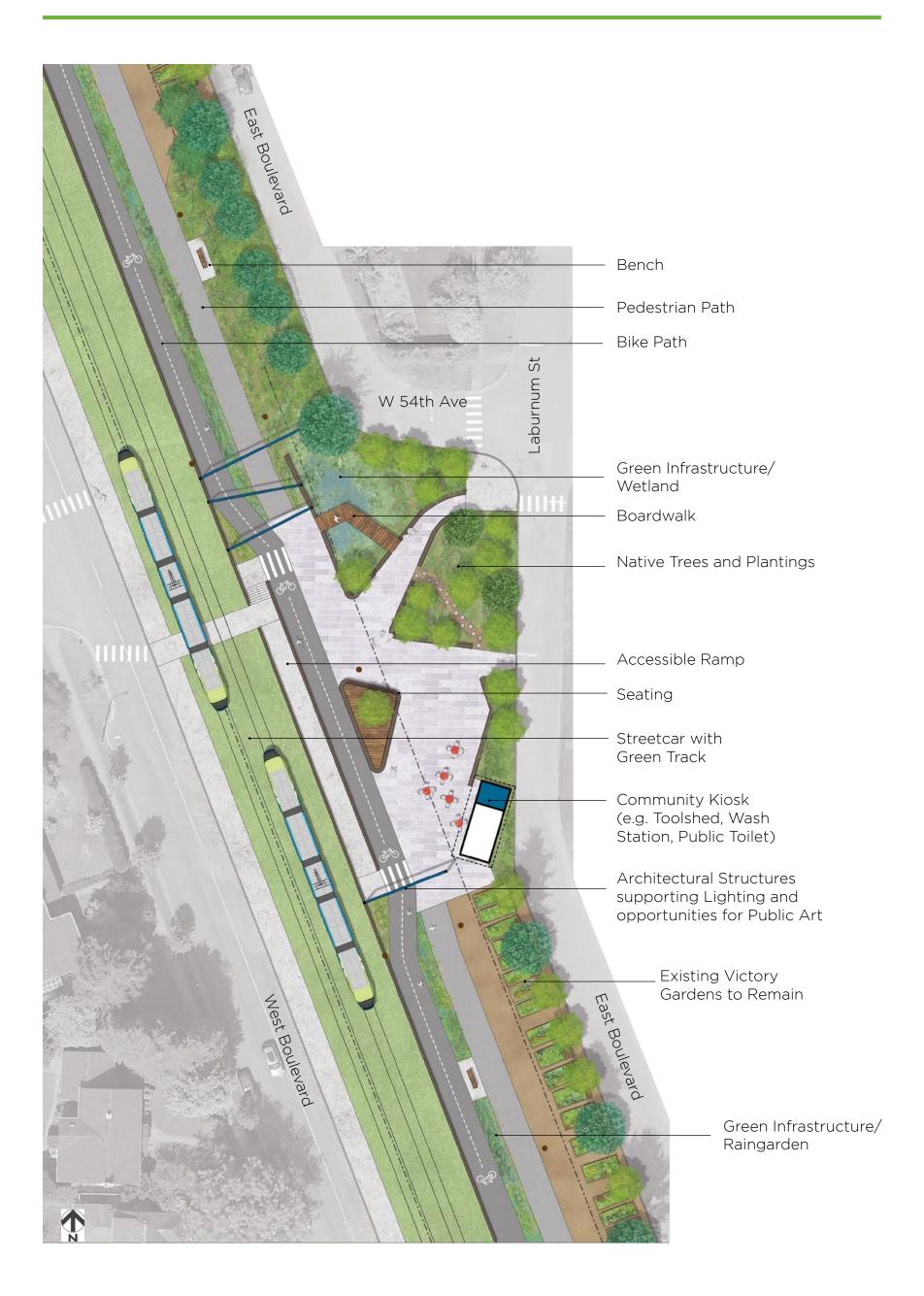
- 3.5 metre walking and cycling paths
- Physical separation between pedestrians and cyclists
- Informal garden paths
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences
- Enhanced connections from adjacent neighbourhoods

PUBLIC FEEDBACK

- Support biodiversity: "Scented plantings, butterfly bush, different trees, bird nesting boxes"
- Incorporate urban agriculture: "Find a way to add more gardening spaces" where possible.
- Design for all ages and abilities: "Zone 6 from W Boulevard at 54th the path is steep, would like a ramp or curved path"



PRE-STREETCAR PLAN VIEW





PRE-STREETCAR 3D MODEL



Post-Streetcar 3D Model



DESIGN THEME: MARPOLE MEANDER

The Marpole Meander is one of the longest sections of the greenway and offers a variety of recreational opportunities (E.G. pickleball and bocce courts, ping pong tables, a large chess board, a parkour course and a kids bike skills course). A small community gathering area at West 60th Ave includes movable tables and chairs, a public washroom and a sharing shed housing recreation equipment. The zone also includes the southern portion of the Victory Gardens. The Marpole Meander passes by Riverview Park at W 64th Ave, the second largest park along the greenway.



Design Highlights

Public realm improvements:

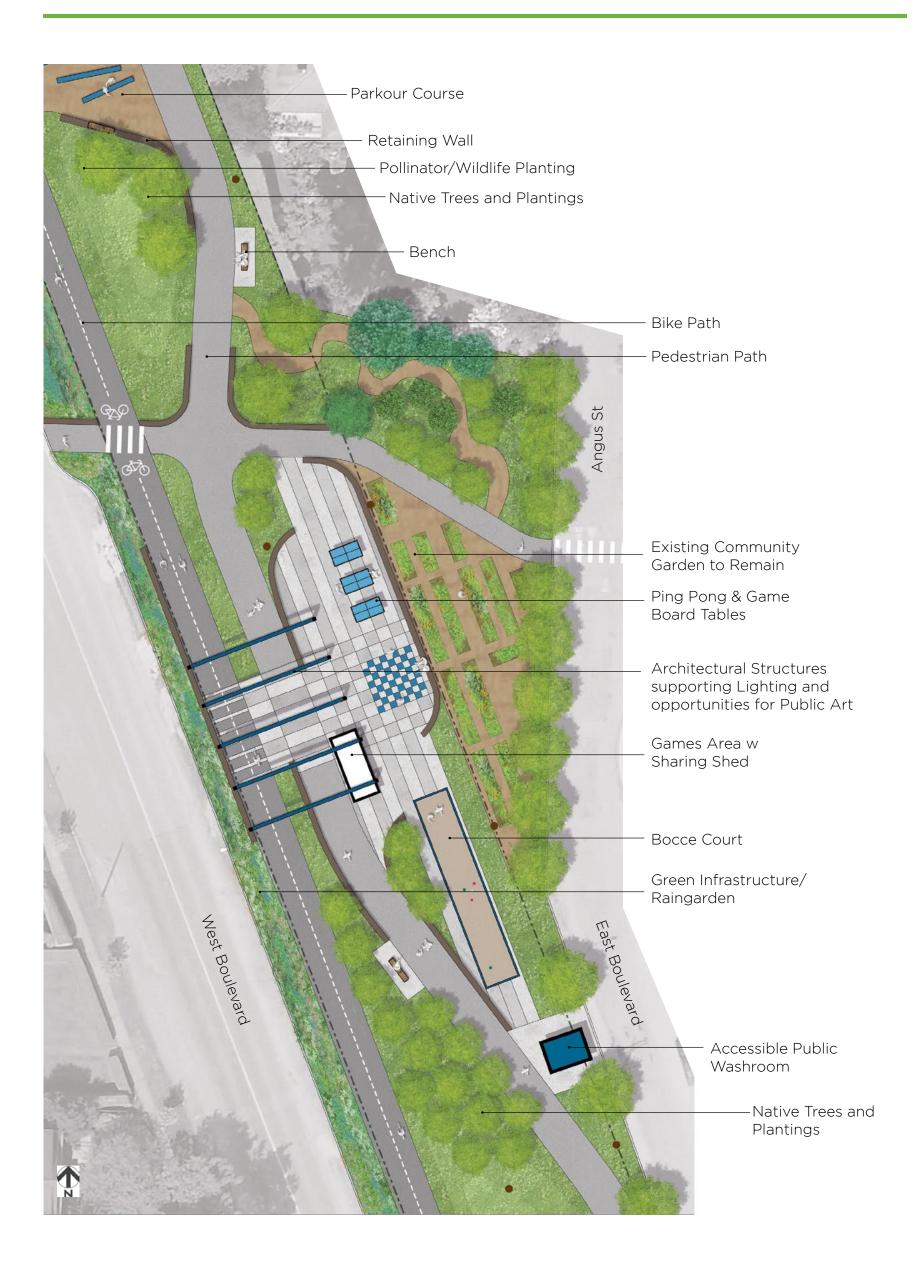
- Community gathering area at West 60th including a community "sharing" shed
- Small sport courts for pickleball, badminton, bocce etc
- Parkour course and 'kids' bike skills course
- Moveable tables and chairs
- Board game tables and ping pong tables
- Dark Sky compliant lighting, benches, other amenities
- Wildlife habitat and raingardens

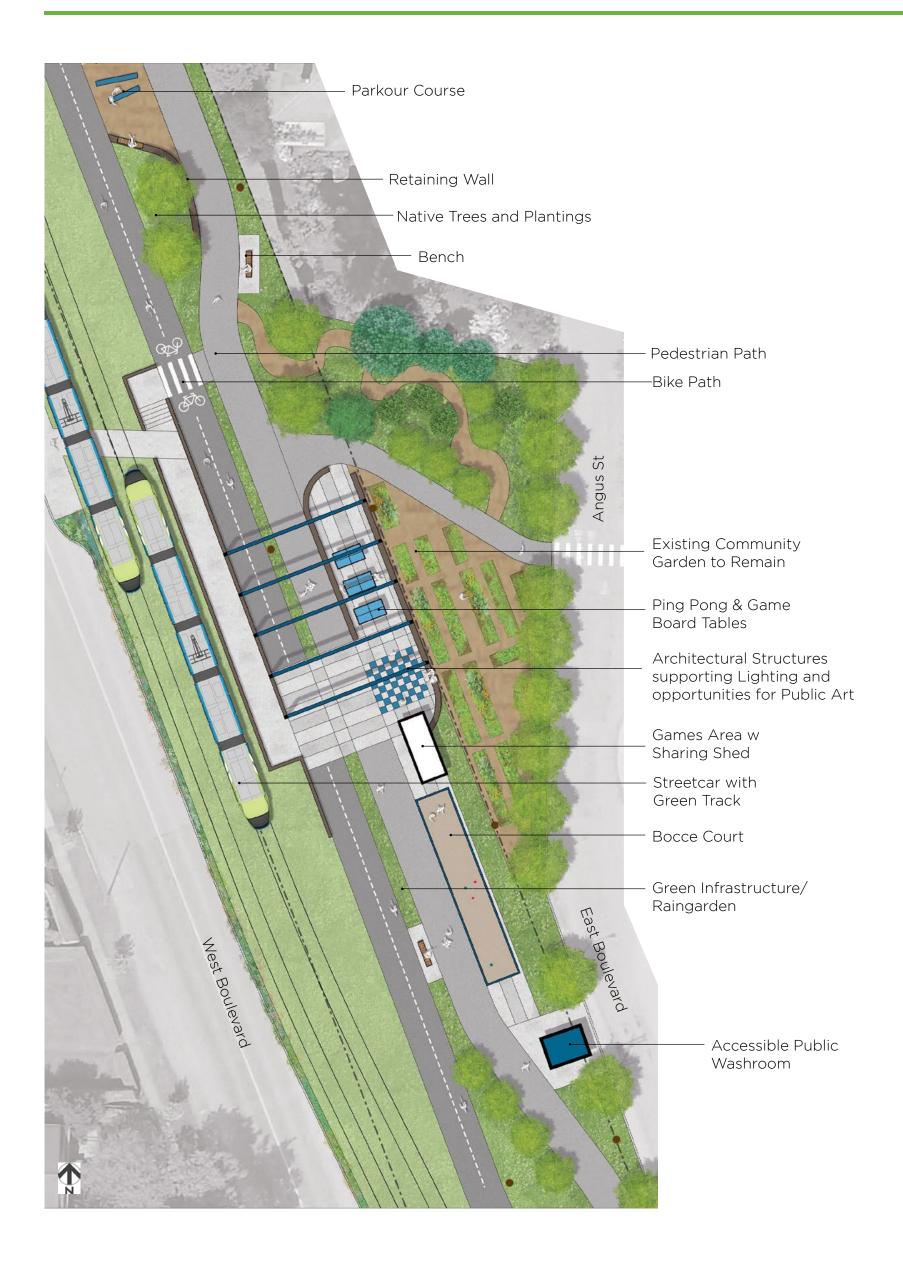
Transportation Improvements

- 3.5 metre walking and cycling paths
- Physical separation between pedestrians and cyclists
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences
- Enhanced connections from adjacent neighbourhoods

Public Feedback

- Make the greenway "easy to use by providing amenities, wash rooms, and garbage bins"
- Provide play spaces for "bocce, petanque court, and horseshoe, ping pong"
- Connect to adjacent neighborhoods: "I would like to see improved public access in Zone 7 including paved paths"







PRE-STREETCAR 3D MODEL



Post-Streetcar 3D Model



DESIGN THEME: THE LOOKOUT

The Lookout is a place of connection: south to the Fraser River and Richmond, and east to the Canada Line Bridge. It is marked by an iconic, fully accessible lookout tower that provides views across the Fraser River Delta to YVR and the distant Gulf and San Juan Islands. This zone sits adjacent to cesna? The Musqueam Nation's sacred site. The City will continue to collaborate with the Musqueam Nation on determing an accessible connection to the Fraser River, and on the integration of the greenway into Musqueam's vision for cesna?



DESIGN HIGHLIGHTS

Public realm improvements:

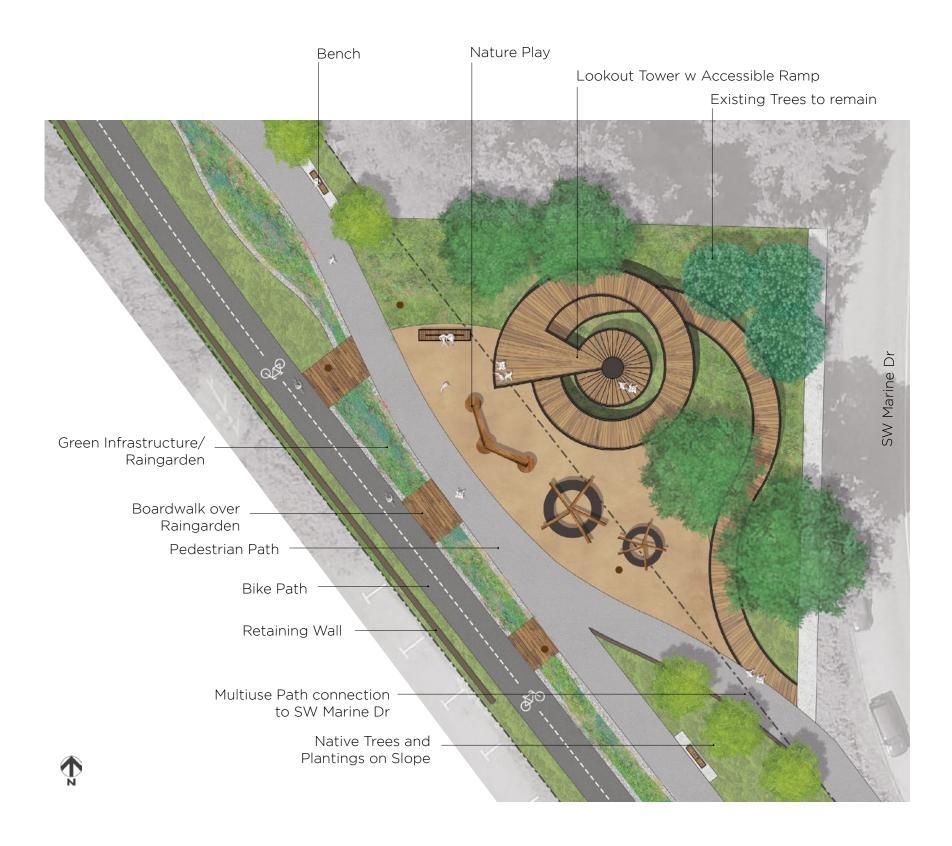
- Fully accessible lookout tower
- Dark Sky compliant lighting, benches, other amenities
- Wildlife habitat and raingardens
- New community gardens
- Nature play

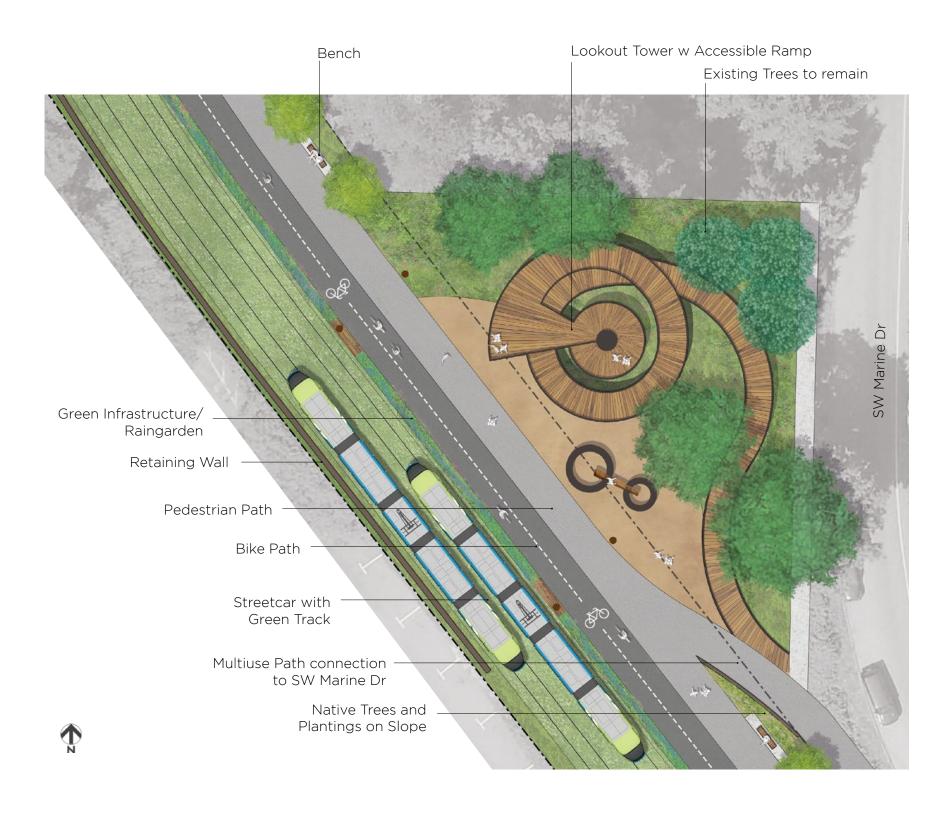
Transportation Improvements

- 3.5 metre walking and cycling paths
- Physical separation between pedestrians and cyclists
- Dark Sky compliant pathway lighting to ensure there is no lighting pollution into adjacent residences
- Enhanced connections from adjacent neighbourhoods

PUBLIC FEEDBACK:

- "I love the lookout. Its my favorite feature and I love that it appears to be wheelchair accessible."
- Create "features that capture rainwater or disseminate rainwater"
- "This area would definitely benefit from connections to the Fraser River so I hope that is a medium (not long) term priority"





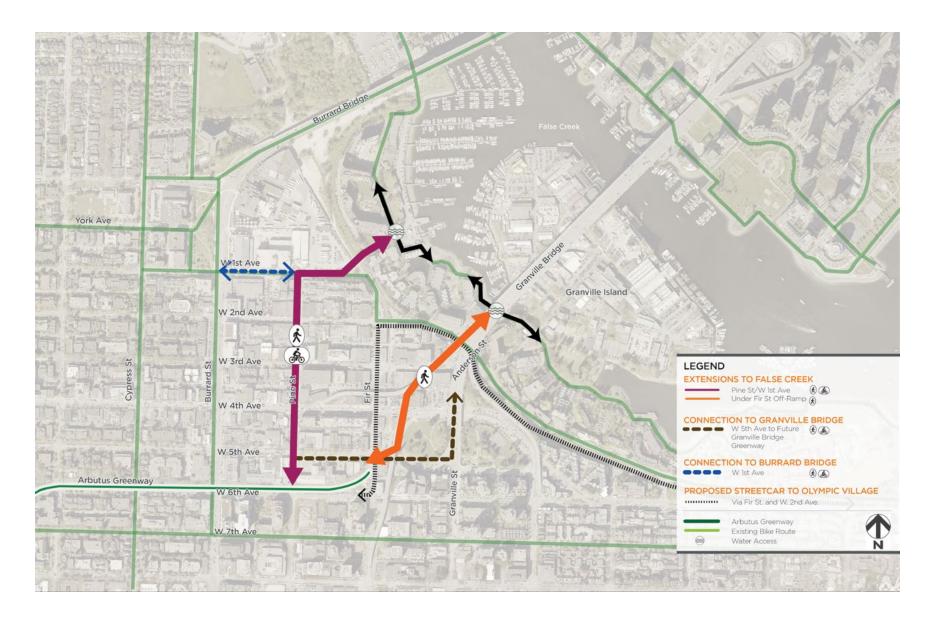


PRE-STREETCAR 3D MODEL



Post-Streetcar 3D Model

Northern Extensions



Ensuring safe and comfortable travel between False Creek and the Fraser River for all ages and abilities is one of the City's core objectives. To determine the best route for northern and southern extensions, a broad range of criteria were considered including: route directness, connections to other bike routes, and road/intersection characteristics.

The northern extensions include:

- A proposed Triple A cycling route to False Creek via Pine St and W 1st Ave
- A walking route to False Creek under the Fir St offramp, subject to further investigation.
- Future walking/cycling route to Granville
 Bridge along W 5th Ave, subject to further transportation and park design

Southern Extensions



The southern end of the Arbutus Greenway offers multiple, albeit somewhat complicated opportunities for extending the greenway to the Fraser River and existing transportation infrastructure. Investigation is currently in progress to assess possible extensions with an emphasis on the following links:

- Hudson St Park
- Fraser River Park
- Arthur Laing Bridge / Richmond

Additional desired connections that require considerably more investigation include:

- Marine Dr Station via W 67th Ave and W 68th Ave
- Canada Line Bridge and Kent Ave bike route (to be determined)

The City will continue to work with Musqueam, Squamish, and Tsleil-Waututh Nations to explore connections to the Fraser River.

Collaboration with Musqueam, Squamish and Tsleil-Waututh Nations

Overview

The City of Vancouver is situated on the shared, unceded traditional territories of Musqueam, Squamish, and Tsleil-Waututh (MST) Nations. The Arbutus Greenway Team is collaborating with MST Nations on the design and development of the Arbutus Greenway, with a particular emphasis on the following topics: Naming and Visibility, Wayfinding, Ethnobotany and Public Art.

Naming and Visibility:

There is an opportunity to leverage the Arbutus Greenway as a pilot project for MST Nations naming and for increasing the visibility of MST Nations' culture. There also exists a possibility to rename the overall greenway or specific sections of the greenway with traditional place names.

Wayfinding:

Develop a comprehensive signage package for the greenway, in English, Həṅḍəminəm (Halkomelem), and Skwxwú7mesh (Squamish). The package will have the following goals:

- Help people navigate to destinations on and off the greenway
- Recognise sites with significant cultural and historic importance to MST Nations
- Increase the visibility of MST Nations language and culture on their territories
- Interpret events and tell stories of the corridor's past

Ethnobotany:

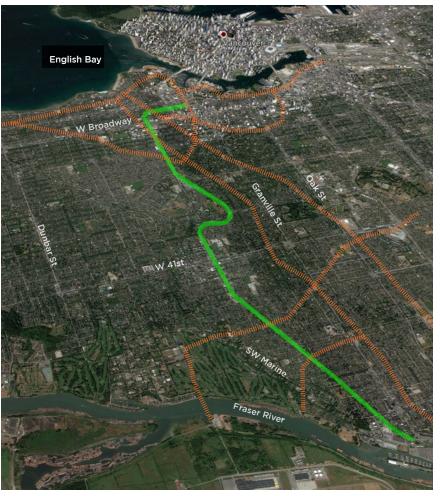
Reintroduce native plants along the greenway and add interpretative signage that highlights the cultural value of the plants for MST Nations.

Public Art:

MST Nations will be invited to help the City commission and select Indigenous public art for installations along the Arbutus Greenway.



Native Plants



Traditional MST Nations Travel Routes



Musqueam Nation Street Signs @ UBC



Fusion by Susan Point @ Cornish and SW Marine Dr

Design Elements

Overview

Design elements are a suite of features that provide the greenway with an overarching look and feel, and that link together each character zone. This could include features such as the re-use of remnant railway infrastructure, and consistent wayfinding elements such as signage and coloured paint. Design elements will capture the spirit of the Arbutus Greenway as a journey between river and ocean, punctuated by places for social gathering and connection with nature. Design elements will also serve to establish a cohesive character along the greenway while respecting the neigbourhoods through which the greenway traverses.

Furnishing Principles:

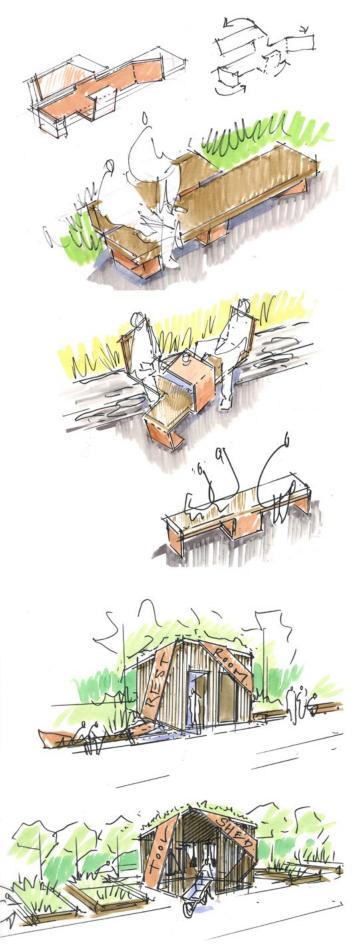
- A suite of consistent furniture will be positioned along the Arbutus Greenway, complemented by unique, iconic features that relate to the distinct character zones.
- Durable, sustainable and locally sourced materials will be used whenever possible.
- Furnishings will be adaptable, providing an armature to support the way in which people use the greenway throughout the seasons.
- Opportunities for community participation in the design of unique furnishings is encouraged through ongoing public engagement and design competitions.

Amenities and Structures Principles:

- Amenities and structures will be located along the Arbutus Greenway at key locations to encourage social interaction, community gathering, special events and recreation.
- Durable, sustainable and locally sourced materials will be used whenever possible.
- Kiosks and covered areas will be unique design elements that relate to the distinct character of the neighbourhood in which it is located.
- Architectural structures will be a consistent design element that repeats along the greenway but will be designed to allow for transformation throughout the seasons with temporary public art, banners, lighting installations, etc.
- Accessible washrooms will ideally be located approximately every kilometre. Washrooms that are co-located with parks will be multi-stall and will be designed in collaboration with the Vancouver Park Board. All other washrooms will be single stall units.

Paths and Paving Principles:

- Walking and cycling surfaces will be built to universal design and accessibility standards.
- Pedestrian and bike paths will be designed to enable all user groups to access and comfortably enjoy the greenway.
- Pathway markings will clearly designate pedestrian pathways, bike pathways and points where these paths intersect.
- Pedestrian paths and bike paths will be constructed primarily of asphalt. In high traffic, urban areas concrete will be considered for pedestrian paths.



Examples of possible furnishings and structures

Wayfinding

Overview

A well-designed wayfinding system enables people to orient themselves and navigate from one area to another with ease and confidence. It helps residents and visitors find their way around a city through the consistent application of information such as landmarks, neighbourhoods, destinations and connections. Wayfinding increases the likelihood that people will make trips on foot, and presents an opportunity to tell the story of the Arbutus Greenway through the use of iconic features.

The City is exploring opportunities to collaborate with the Musqueam, Squamish and Tsleil-Waututh Nations to recognize sites with significant cultural and historic importance to MST Nations through wayfinding.

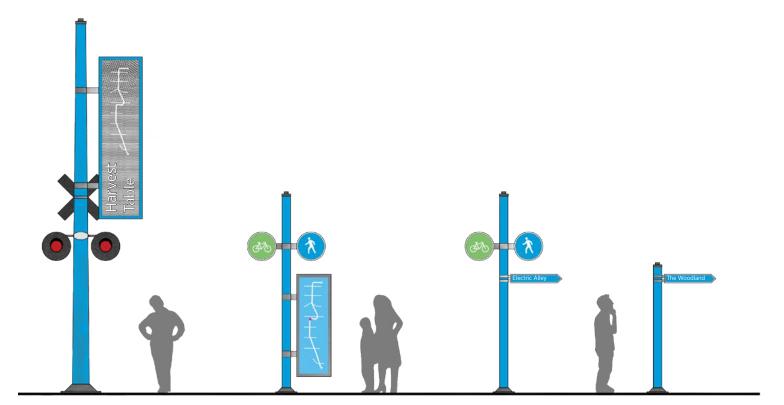
Strategy

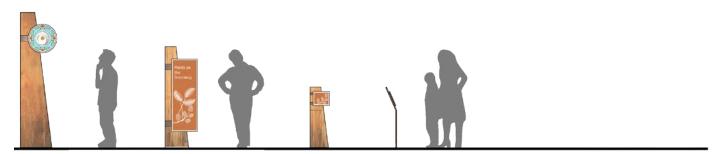
A wayfinding strategy for the Arbutus Greenway Project will be developed in the context of the City's overall wayfinding system, and will include overarching principles and best practices that can be applied to the greenway throughout its construction and operation. It is anticipated that locational signage ("you are here") will be used at all major intersections, decision points and gateways into the greenway. Directional signage will provide additional information at minor decision points and in the vicinity of key destinations. Further design development and influence from First Nations intergovernmental partners will inform the detail of the wayfinding strategy and its components.

Features

Wayfinding on the greenway will include a combination of the following features:

- Maps: Help users to orient themselves and plan their preferred route.
- Fingerposts: At key locations, fingerposts or other directional signage should be utilized to highlight specific, nearby locations.
- Landmarks: Landmark wayfinding utilizes coloured bollards or similar infrastructure in a repetitive pattern to allow users to follow a pathway. Markers may include distances to key locations to help users understand their location in the context of their surroundings.





Examples of wayfinding directional and interpretive elements

Lighting

Overview

Lighting along the Arbutus Greenway will be designed to ensure safe and efficient movement along pedestrian walkways, cycling paths, in addition to celebrating public art, gathering spaces, and supporting wayfinding. The lighting will be integrated into the overall corridor programmatic themes. While there will be corridor-wide consistency in aspects of the design, special considerations will be included for specific neighborhoods, where the lighting will follow the unique nature of the character zones. The lighting design of the Arbutus Greenway will be based on relevant standards, guidelines and technological innovations. It will be structured around four key design principles.



- 1. Lighting should meet its intended purpose of allowing safe and efficient mobility: particularly where public safety considerations are prevalent and standards are applicable. One of the main goals of the lighting within the Arbutus Greenway is to provide active transportation users with the appropriate lighting to safely and comfortably travel through the corridor, while enjoying its diverse features.
- 2. The lighting for public gathering spaces, such as plazas and nodes, shall be inviting, inspirational and exciting. Lighting will be used to highlight public art and create easily identifiable landmarks to assist people in establishing their location and establish a strong sense of place.
- 3. In response to the greenway's urban surroundings, the lighting design will respect the privacy of those living along the greenway. The design will include the use of appropriate light levels, Dark-Sky compliant fixtures, cut-off technologies, and physical light shields in order to minimize light spill.
- 4. On zones of the greenway that are not part of the main pedestrian and cycling corridors, the lighting will provide a warm and comfortable atmosphere while maintaining safety and Crime Prevention Through Environmental Design (CPTED) Principles. These areas will achieve a delicate balance in providing safe spaces for reflection and relaxation, giving the users an opportunity to recharge their bodies both physically and mentally while enjoying free time within the centre of the city.



Overhead/Catenary Lighting (Ronstan Tensile Architecture)



Bollard Lighting (Lumteam)



Dark Sky



Quiet Night

Transportation Design

Overview

The Arbutus Greenway will enable people of all ages and abilities to safely and comfortably travel between False Creek and the Fraser River using a variety of non-motorized means. It will also provide connections to neighbouring areas.

Accessibility

Accessible design refers to the application of universal design principles that improve the safety, convenience, and usability levels for all users. This includes people experiencing a range of physical and cognitive conditions. This is particularly important with increased use of the greenway by older adults, and people with disabilities. Accessibility is a fundamental design principle and will be a significant component of the detailed design of the greenway.

Separation between users

The various transportation modes benefit from spatial separation -horizontal and/or vertical- to ensure each mode can function as intended, and is safe, comfortable and enjoyable to use. For example, the cycling path has been placed next to the streetcar tracks along much of the length of the greenway, so that faster users are separated from people moving at a slower pace.

Similarly, slower paced modes are placed adjacent to passive spaces along the greenway where possible. This can be thought of as a speed gradient.

Crossings

In order to enhance mobility through the corridor, the Arbutus Greenway considers opportunities to create a seamless, continuous experience for people walking, wheeling and cycling that minimizes conflicts with other users.

For minor intersections, pathway users will be prioritized using a range of treatments, such as high visibility pavement markings or unique textures to improve visibility, and using traffic calming measures to reduce traffic speed and volumes.

For major intersections, measures can be used to restrict vehicle access while enabling full movements for people walking and cycling. Alternatively, signals can be designed to reduce or eliminate interactions between motor vehicle traffic and vulnerable road users.

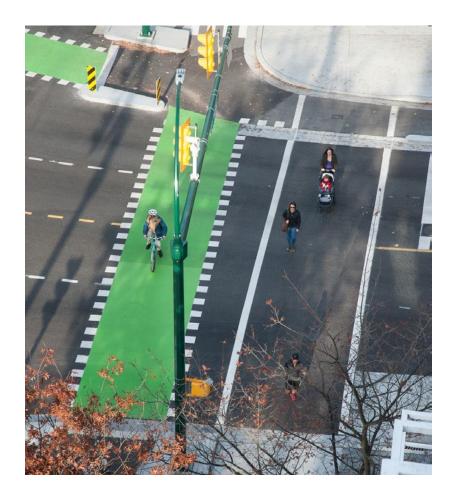


Streetcar

Modern-day streetcar is part of the plan for the future Arbutus Greenway, and will be a comfortable and convenient addition to our city and region's multi-modal transportation system. Streetcars are powered by electricity and controlled by an onboard transit operator. They can run in a dedicated right-of-way or in mixed traffic.

One of the key Arbutus Greenway Project objectives states, "Ensure the Arbutus Greenway is resilient and adaptable to allow for changing circumstances." Equipping the pre-streetcar design with features that facilitate the relatively simple implementation of streetcar in future is critical to ensuring the resiliency of the greenway.

With the implementation of streetcar, cycling and walking pathways will be retained in their prestreetcar locations wherever possible. In most locations along the greenway, the streetcar track is envisioned to be green track (i.e. tracks surrounded by planting material).





Footnote: Although the Arbutus Greenway has been designed to accommodate a future streetcar, a subsequent design process, based on streetcar design parameters, will be undertaken when streetcar is implemented. Please note that the current designs are subject to change.

Urban Ecology

Overview

An important indicator of a healthy, resilient city is the strength of its ecological network. Ecological networks are considered to be the "nervous system" of cities, providing an abundance of life through water, air, earth, plants and animals that we depend on.

While Vancouver is home to a diversity of habitats and naturalized areas, many of them are fragmented and isolated, diminishing their ability to function to their full potential to support natural systems, the hydrologic cycle, climate regulation and to provide abundant habitat and increased biodiversity.

The Arbutus Greenway has the opportunity to be an ecological "artery" of the city, connecting critical and sensitive ecosystems of False Creek with the north arm of the Fraser River. This spine connects 6 parks that already exist with their own ecological functions, but are currently isolated. The greenway could act as an ecological corridor that would contribute to city-wide strategies including the Greenest City 2020 Action Plan, Biodiversity Strategy (2016) and Urban Forestry Strategy (2014).

Throughout the recent public consultation process, the public and stakeholders have identified the importance for the greenway to significantly contribute to the ecology of the city. This includes providing food, water and flower sources for birds, bees, amphibians, and providing places to relax and experience the natural environment characteristic of the West Coast, and opportunities for ecological learning and stewardship.

Green Infrastructure

A key component of enhancing urban ecology is managing stormwater sustainably. The Arbutus Greenway will play a key role in supporting the City's recently adopted Integrated Rainwater Management Plan that seeks to use green infrastructure to manage and reduce rainwater run-off.

Using techniques such as rain gardens, biofiltration trenches, swales and constructed wetlands within the greenway will significantly reduce the flow of rainwater runoff from paved surfaces to existing stormwater infrastructure. Green infrastructure can also filter and improve the water quality of rainwater run-off from paved surfaces.

Integrating systems for sustainable rainwater conveyance and management through these organic environments will provide healthy water downstream, while limiting impacts to an already overwhelmed and aging city infrastructure.

Vegetation

The Arbutus corridor exists within the Coastal Douglas Fir and Coastal Western Hemlock biogeoclimactic zones. However, approximately 90% of the corridor's existing vegetation is comprised of non-native plants species, many of which are considered invasive. Reasserting native trees and shrubs that reflect the historic biogeoclimatic zone as the dominant plant communities along the corridor, as well as anticipating landscape changes due to climatic changes, will play an instrumental role in reestablishing the corridor's ecological function. Native species selection will be planned in collaboration with the Musqueam, Squamish and Tsleil-Waututh Nations.

A key implementation strategy will be the removal of invasive species, followed immediately by the replacement with native species. This protocol will help to establish a native plant community while reducing the likelihood that invasive plants will return. An invasive species management plan will be prepared for the project and will specify the treatment, removal sequencing and management as well as on-going operations and maintenance to observe for, and prevent the presence of invasive species. This will include establishment of a rigorous maintenance regime to support the initial and vital growth stages of new native planting.

Wildlife

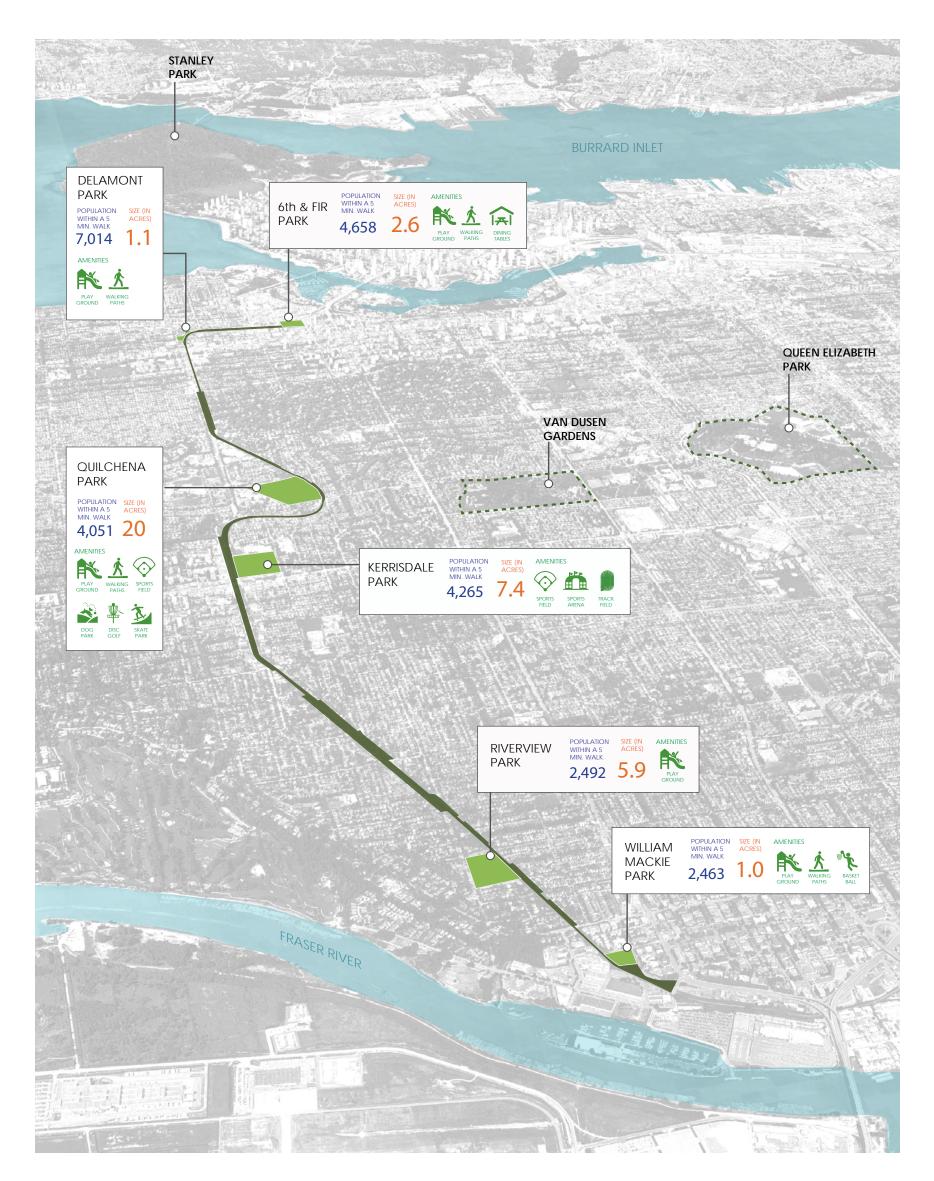
With the increase in native vegetation, the overall greenway's wildlife strategy will aim to increase the presence of native birds and pollinators. The goal will also be to create a key source of food, habitat and respite for over 20 species of terrestrial and aquatic based species. Trees and understory planting will be selected with a composition and spacing that supports migratory species patterns and provides food sources.

The greenway will also be designed to maintain natural corridors for pollinators by connecting larger habitat patches associated found within the neighbouring parks with ecologically diverse treatments of the greenway. This can be achieved through planting meadows of pollinator friendly species and a mix of native plants along the greenway.

Existing Park Context

The Arbutus Greenway passes beside six existing parks. Historically, the former CPR rail line discouraged any spatial relationship between the six parks and the rail line. In some cases fences were constructed to separate the uses. With the City owning the rail corridor, there are opportunities to spatially link the greenway and each park through the evolving design of the Arbutus Greenway, as well as through future park enhancements.

To that end, the City and Park Board will work collectively to ensure the greenway-park interface is successful. The City will be responsible for the design of the greenway and Park Board will lead the design upgrades to parks as required. The graphic below provides the context and location for existing parks immediately adjacent to the greenway.



Greenway-Park Interface Design Principles

The interface between the Arbutus Greenway and adjacent parks will require thoughtful design solutions to ensure both the greenway and the adjacent parks benefit from their new found spatial relationship. As the greenway design evolves, and as adjacent park development and/or improvements are undertaken by Park Board, the following principles will provide clear direction as to how the interface is conceptualised.

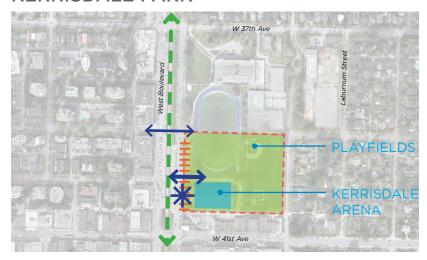
Draft Greenway-Park Interface Design Principles:

- 1. Strategically connect to and from parks
- 2. Maintain & enhance functionality of parks
- 3. Anticipate increased visibility & use
- 4. Create cohesion of character & experience
- 5. Manage safety risks & reduce conflicts

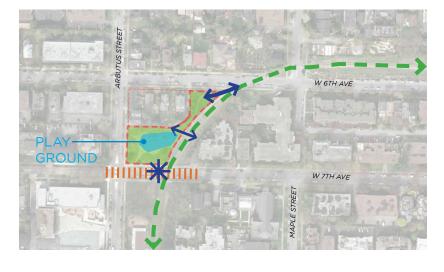
6th & FIR PARK



KERRISDALE PARK



DELAMONT PARK



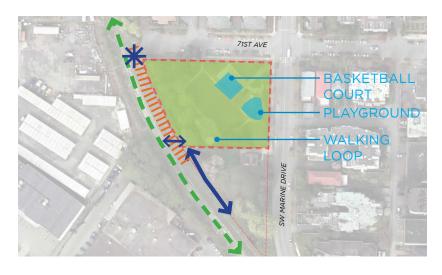
RIVERVIEW PARK



QUILCHENA PARK



WILLIAM MACKIE PARK









Potential node/gateway



Connections to park (internal pathways to be considered and carried out by Park Board engagement and design process)

IIIIIIIII Enhance edges of parks and manage conflicts (between bike/ped, arbutus greenway, and park uses)

Public Art

Overview

The Arbutus Greenway Public Art Master Plan will provide opportunities to bring artists and their work into communication with the greenway's communities, ecologies, histories, and trajectories. Working from independent perspectives, artists will engage the greenway through a variety of artistic approaches and media, deepening the experiences and engagement with the site of visitors and surrounding communities. The art plan will document the cultural context of the greenway and identify potential public art opportunities along its full length.

Public Art Strategy

Public art offers the opportunity to bring artists' eyes to the complex social, cultural, economic and urban conditions of a site. The City of Vancouver's "artist-initiated" approach to commissioning is built on an understanding that the most powerful public expressions come from an artist-directed process of engagement with a site, rather than a pre-determined design brief setting parameters for a commission. Art produced through this approach can support a serious engagement with the site, but with results that could not have been predicted in advance. Done well, a civic public art program will bring art and the city together in all their complexities while maintaining the integrity of each.

Vancouver artists have long operated between the international contemporary art context and a deep engagement with the particularities of this city and region. The city is well furnished with artists who can work responsively to a particularly place. The deep connections between the city's artists and the world also allows for them to work harmoniously in a context mixing local artists with artists from elsewhere in the world.

Public Art Vision & Objectives

Public Art Vision

To provide public art that will enrich the experience of the Arbutus Greenway for the greenway users and the various audiences living and working in the surrounding neighbourhoods.

Public Art Objectives

- To develop public artworks that have interest across time through repeated visits for a broad range of public audiences
- To offer artists the opportunity to expand their art practices through the consideration of the public realm generally and the Arbutus Greenway specifically as a sphere within which to engage new audiences and address new issues
- To bring artists and their varied approaches to the context of the Arbutus Greenway, deepening understanding of the site, its histories, cultures, ecology, and pathways through a powerful engagement between art and site.

Public Art Typologies

Four distinct physical typologies will allow a range of artwork to be showcased along the Arbutus Greenway:

- 1. Nodal artworks at plazas, parks, corners and particular sites of interest
- **2.** Linear artworks that extend along a portion of the greenway length
- **3.** Artworks that are in series distributed along a length of the greenway
- **4. Mobile artworks -** that can be relocated along the greenway

Public art along the greenway may engage with the community and greenway users, relate to the greenway, active transportation, the body and physical fitness, and mix permanent artworks with a program of temporary and changing artwork.

MST Nations Heritage

The Arbutus Greenway's nine kilometre route travels through the traditional territories of the Musqueam, Squamish, and Tsleil-Waututh Nations. Contemporary MST Nations artwork has experienced a resurgence, with its own specific formal vocabulary that distinguishes it from the formline-based artwork of the northern coastal First Nations of the Haida, Kwakwaka'wakw and Tsimshian. Most recently, the rich art-making of the local First Nations has been emerging into public spaces throughout the Vancouver region—initially and largely through the celebrated work of Musqueam artist Susan Point.

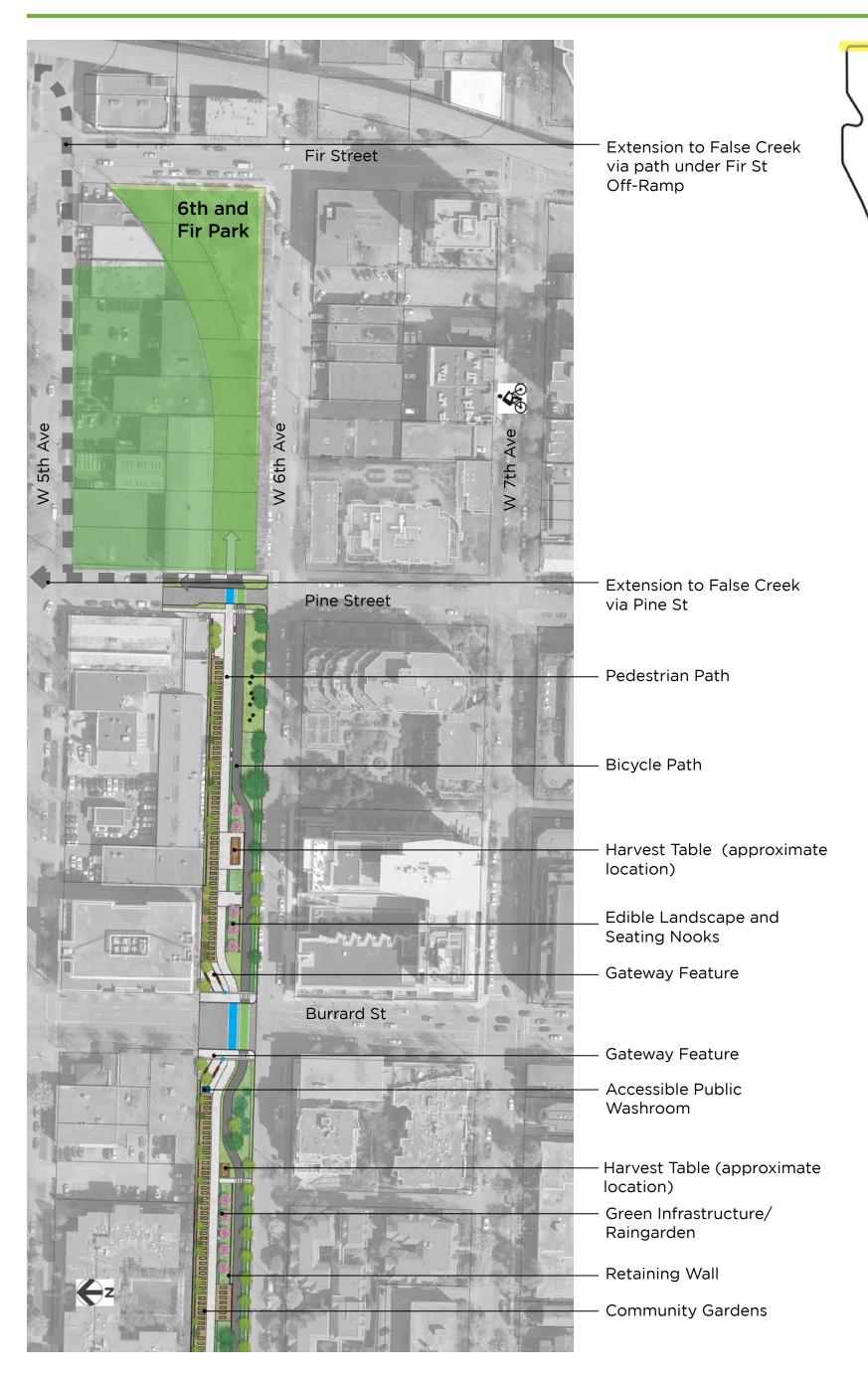
Particular sites of interest along the greenway length are the documented MST Nations travel routes throughout the Burrard Peninsula crossing the Arbutus Greenway route. Among other sites and opportunities, these historical and formal intersections with the greenway will be considered as potential sites for artworks to be developed by local MST First artists.

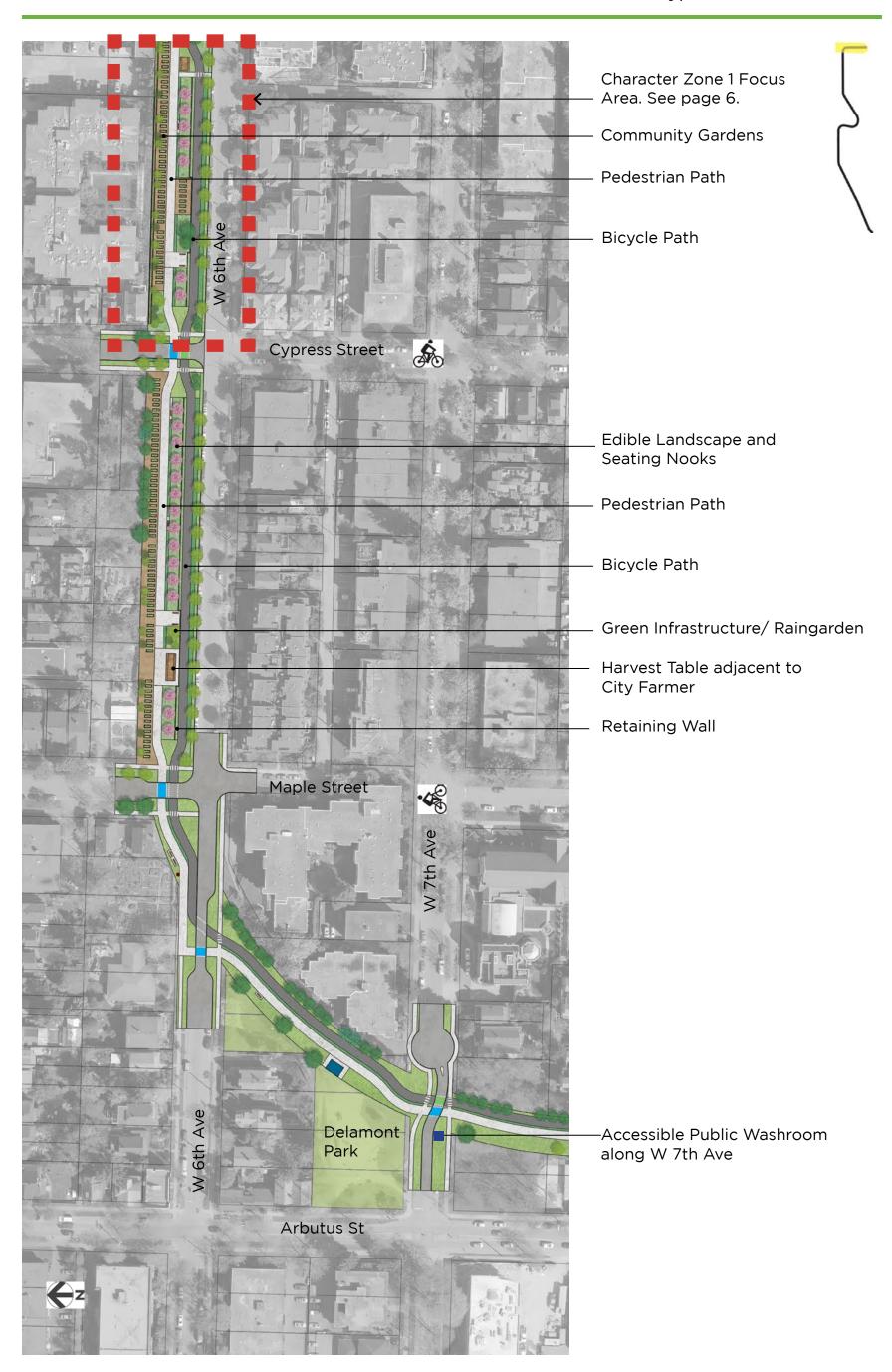
Overall Greenway Plans

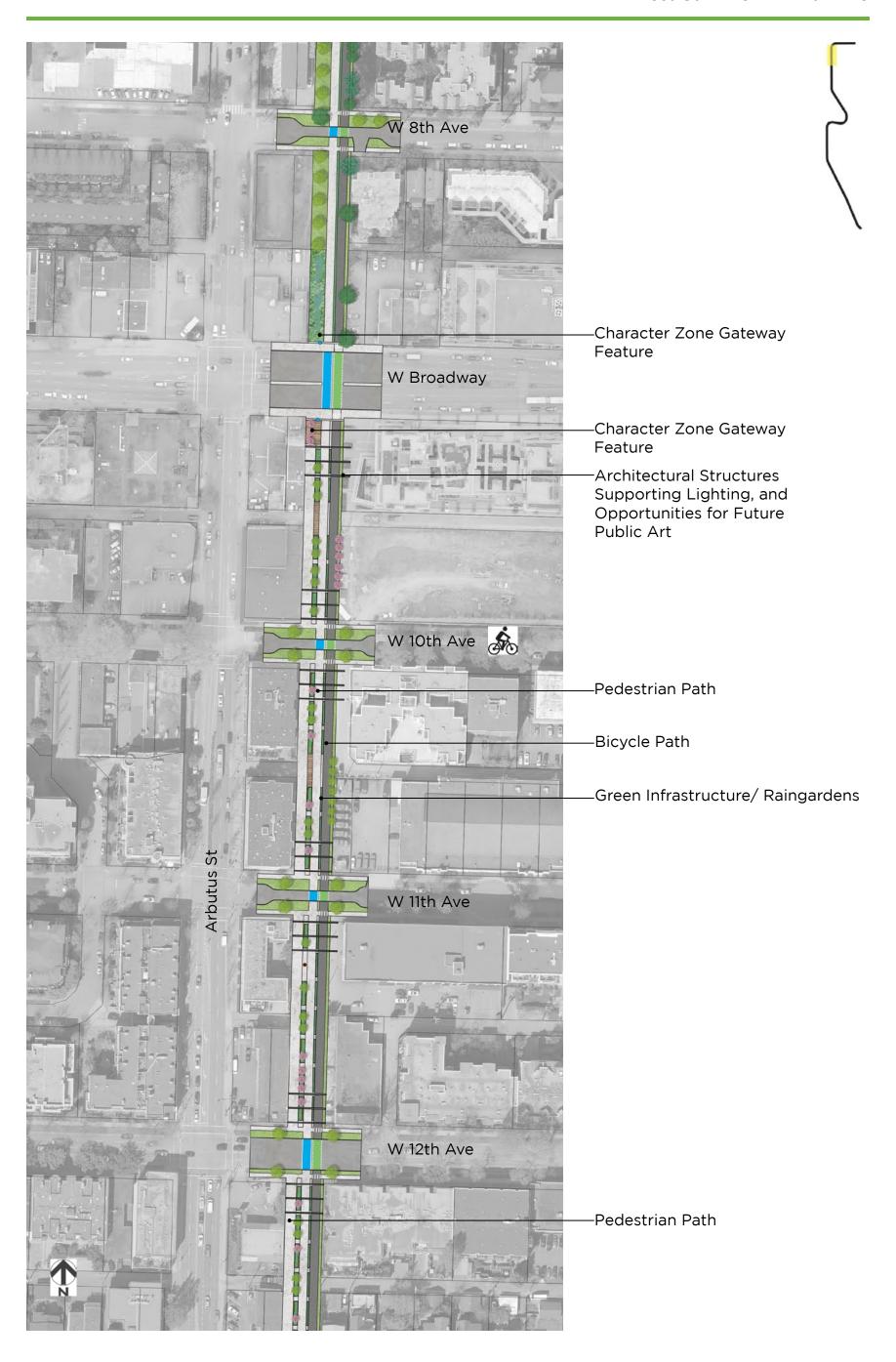
Overview

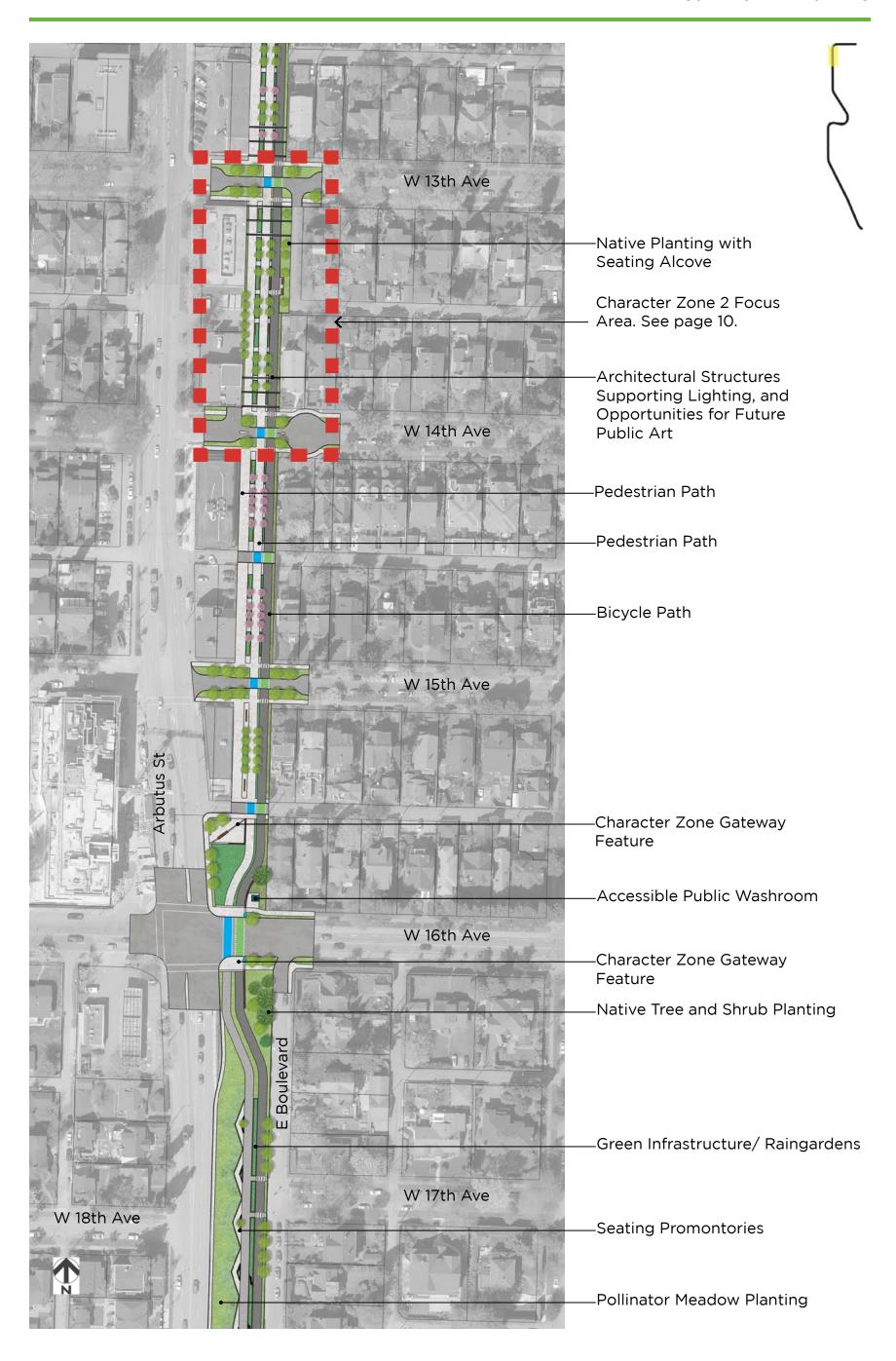
The following section provides a high level view of the proposed pre-streetcar design for the entire greenway. Due to the length of the corridor (approximately 9km), the scale (1:1500) at which much of the design investigation has, to date, been conducted, and the necessity for ongoing public input into the future detailed design of each character zone, the following pages illustrate general design direction rather specific designs.

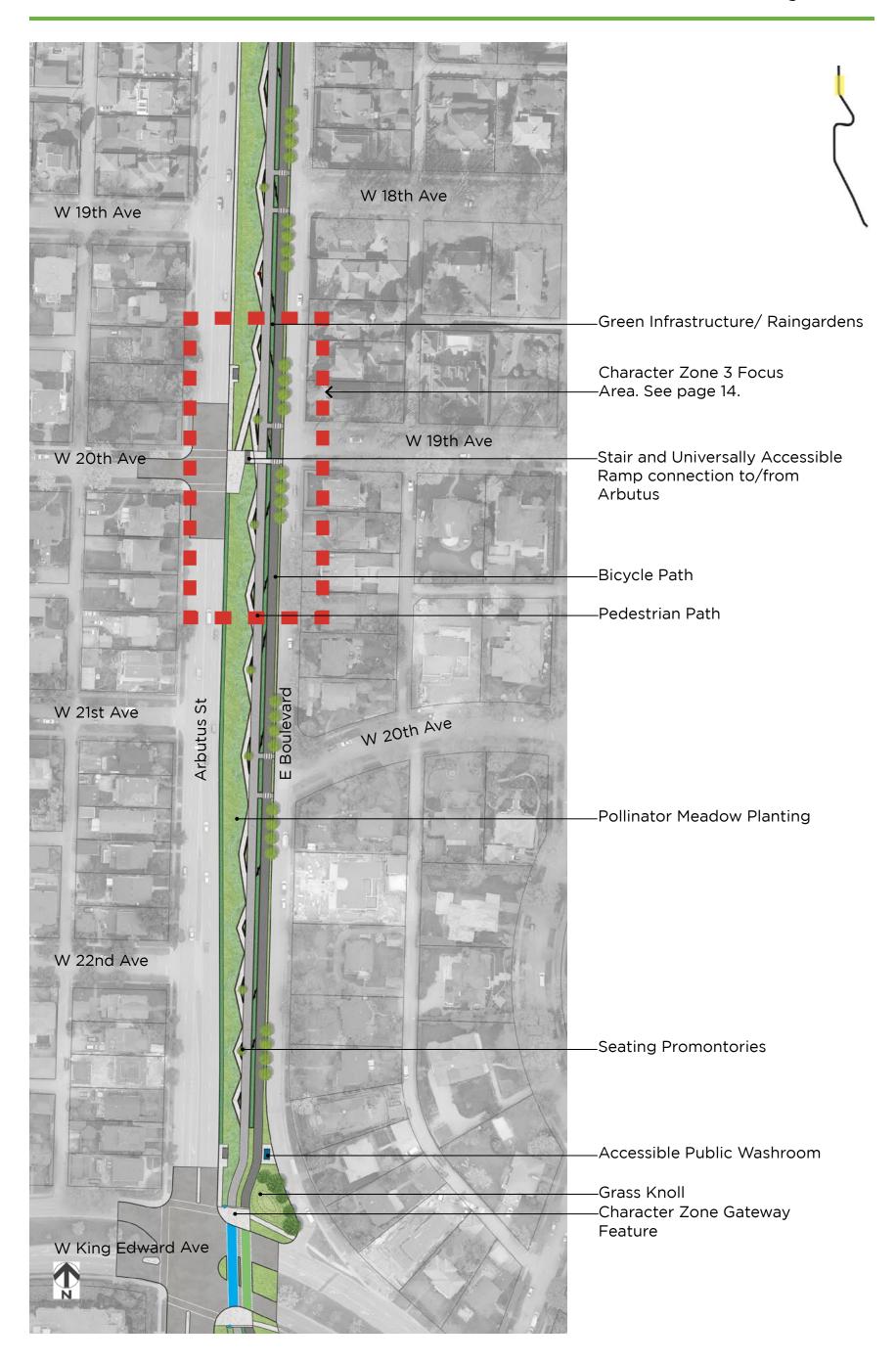
The detailed design for each character zone will emerge as directed by Council and in association with MST Nations involvement, and public and stakeholder engagement.

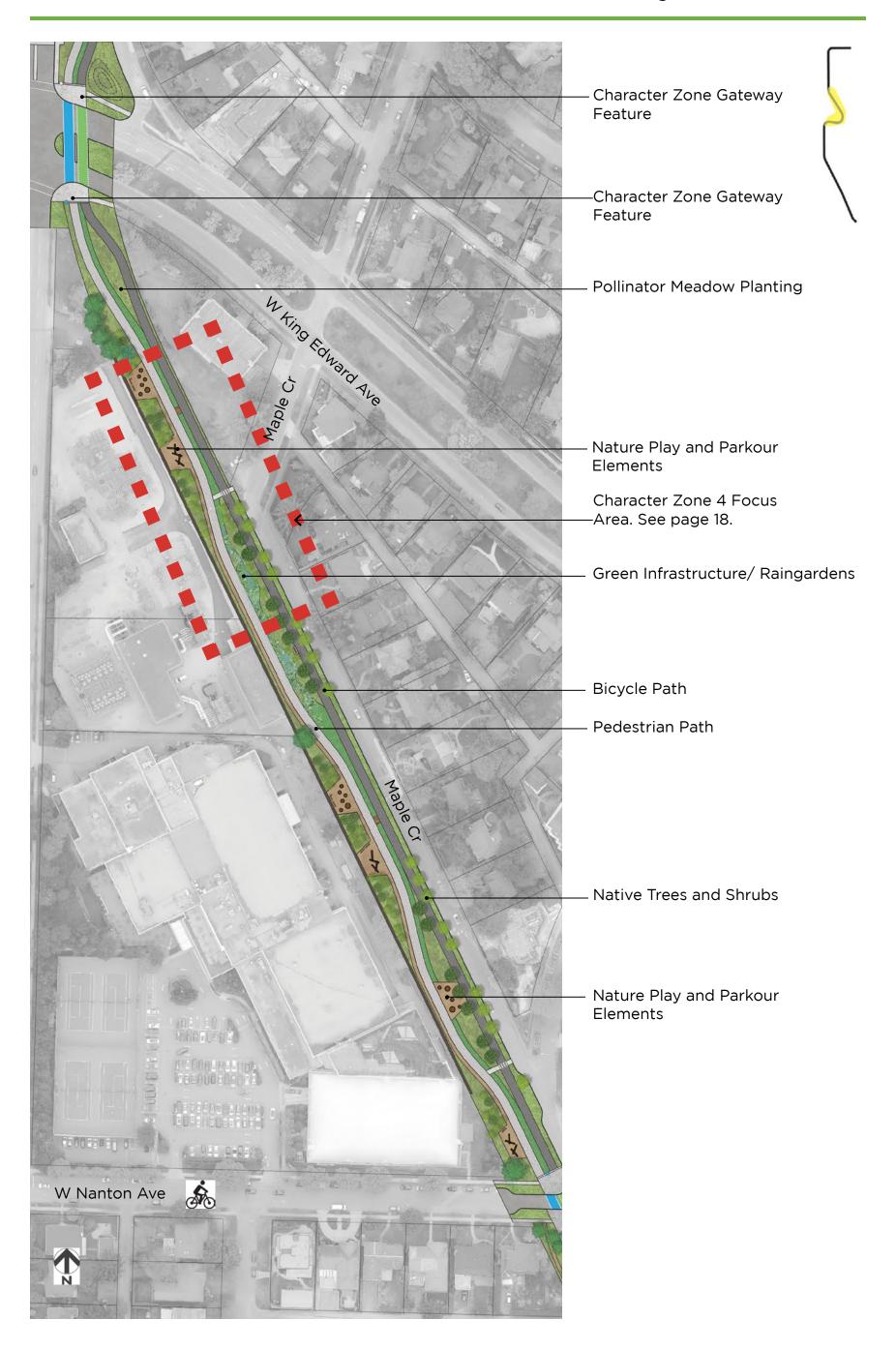




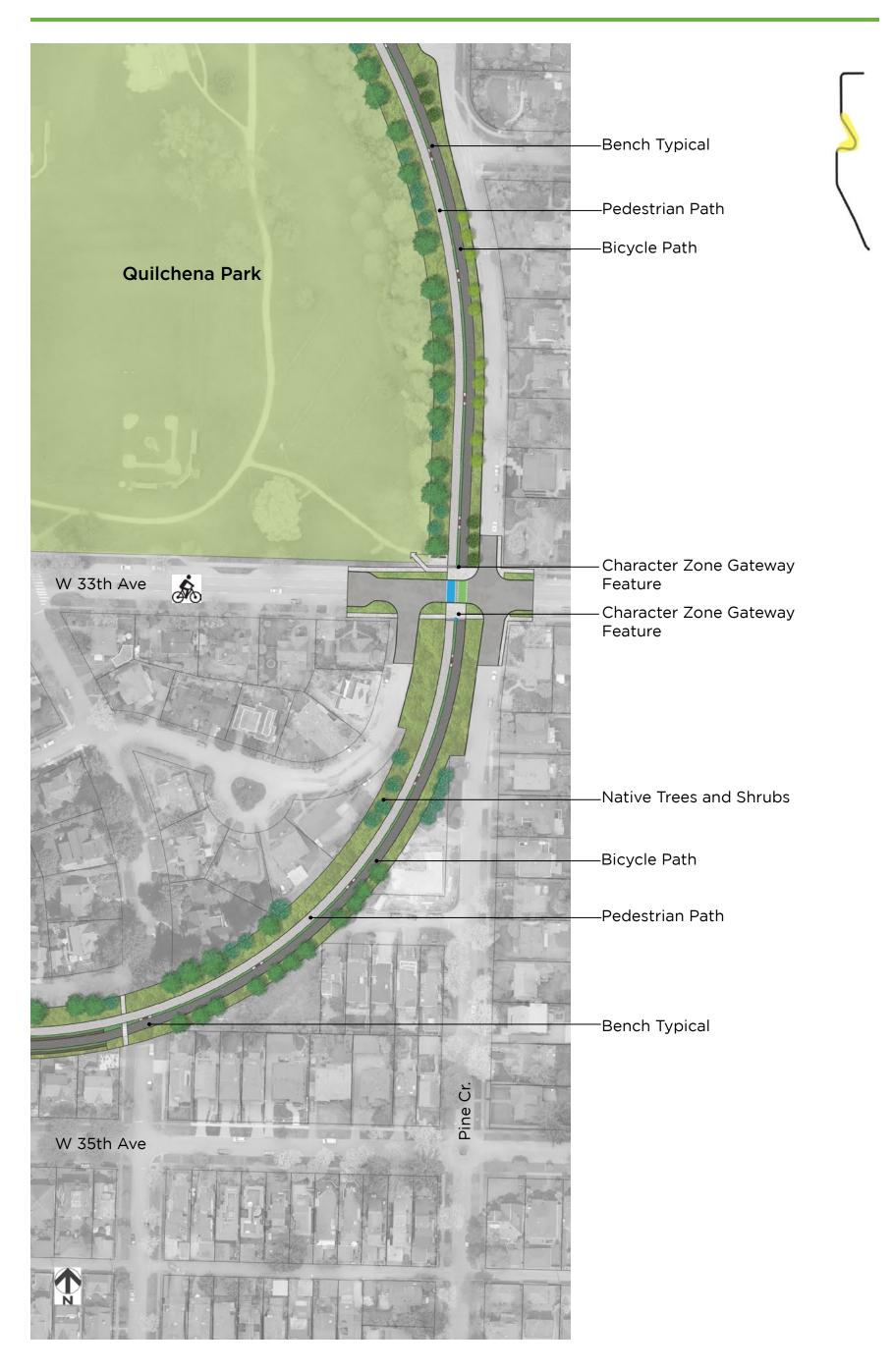


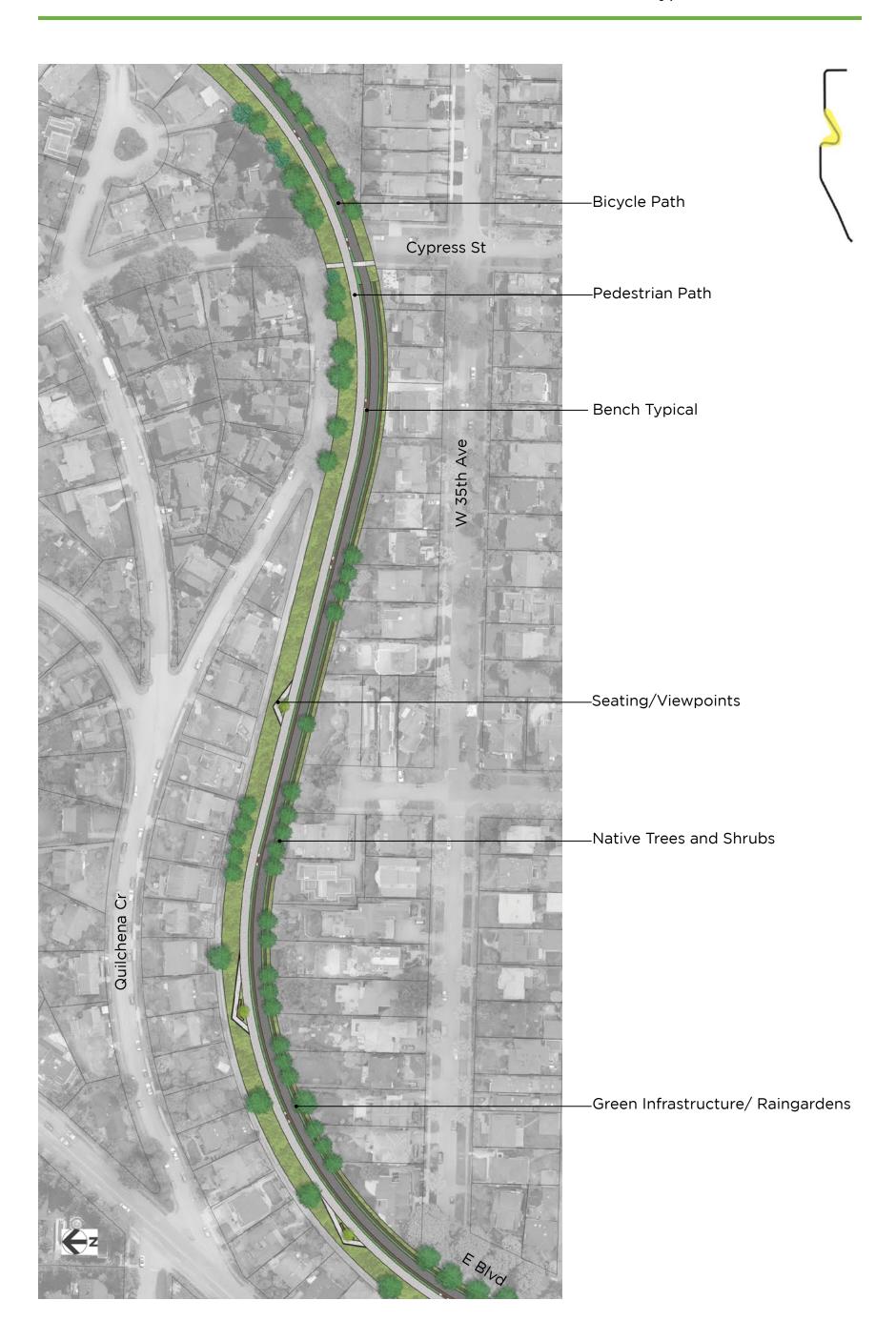




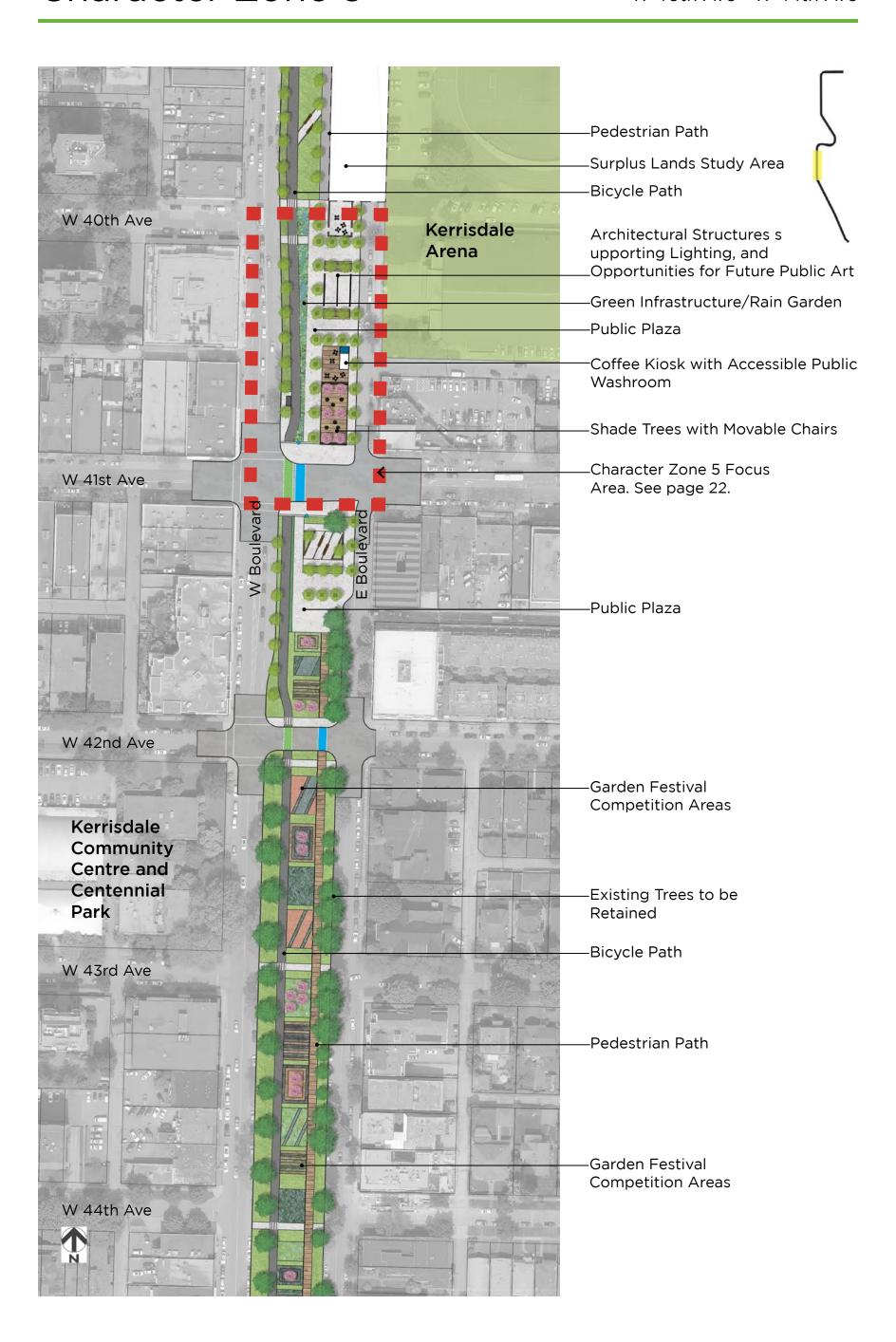




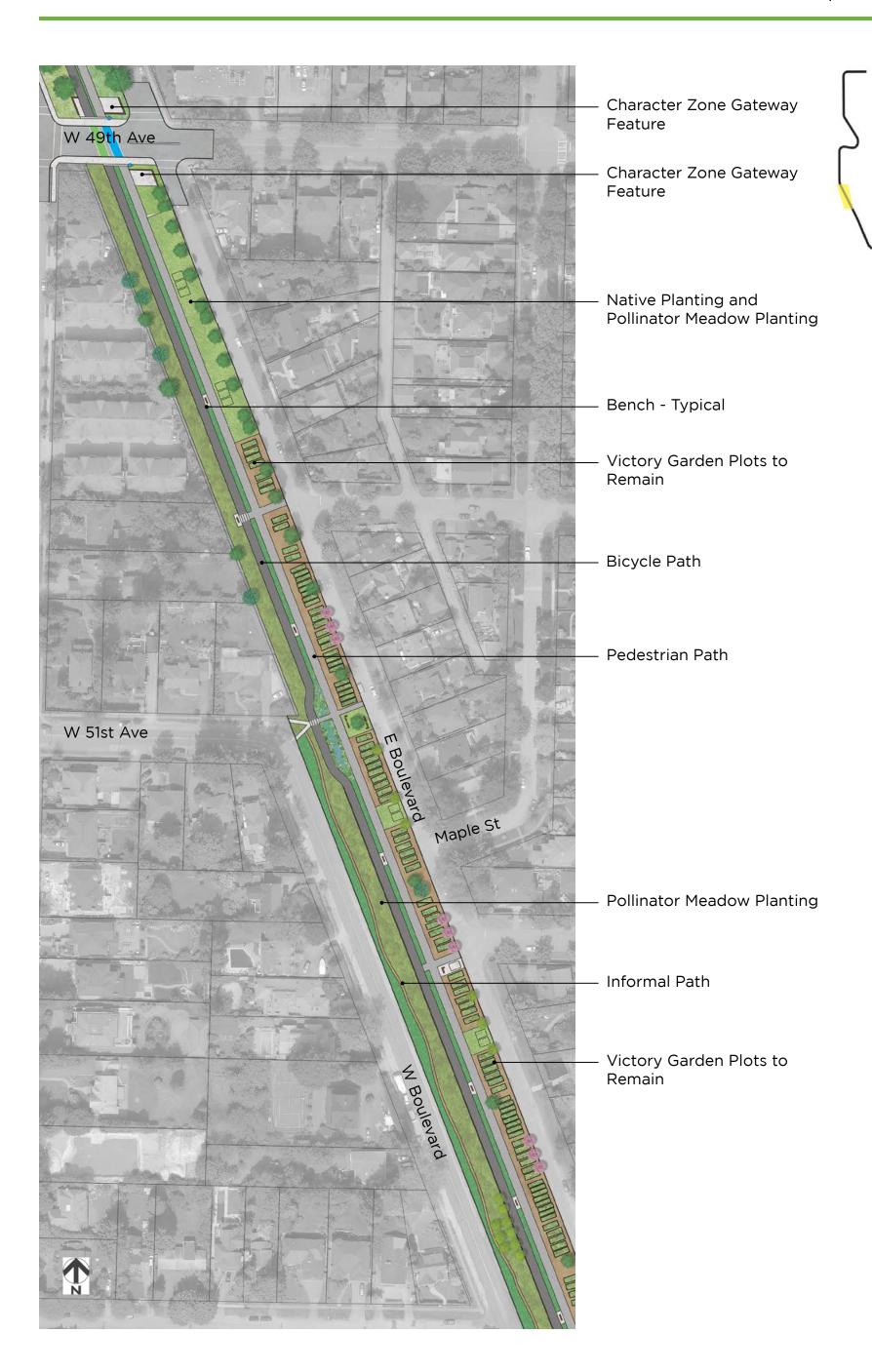


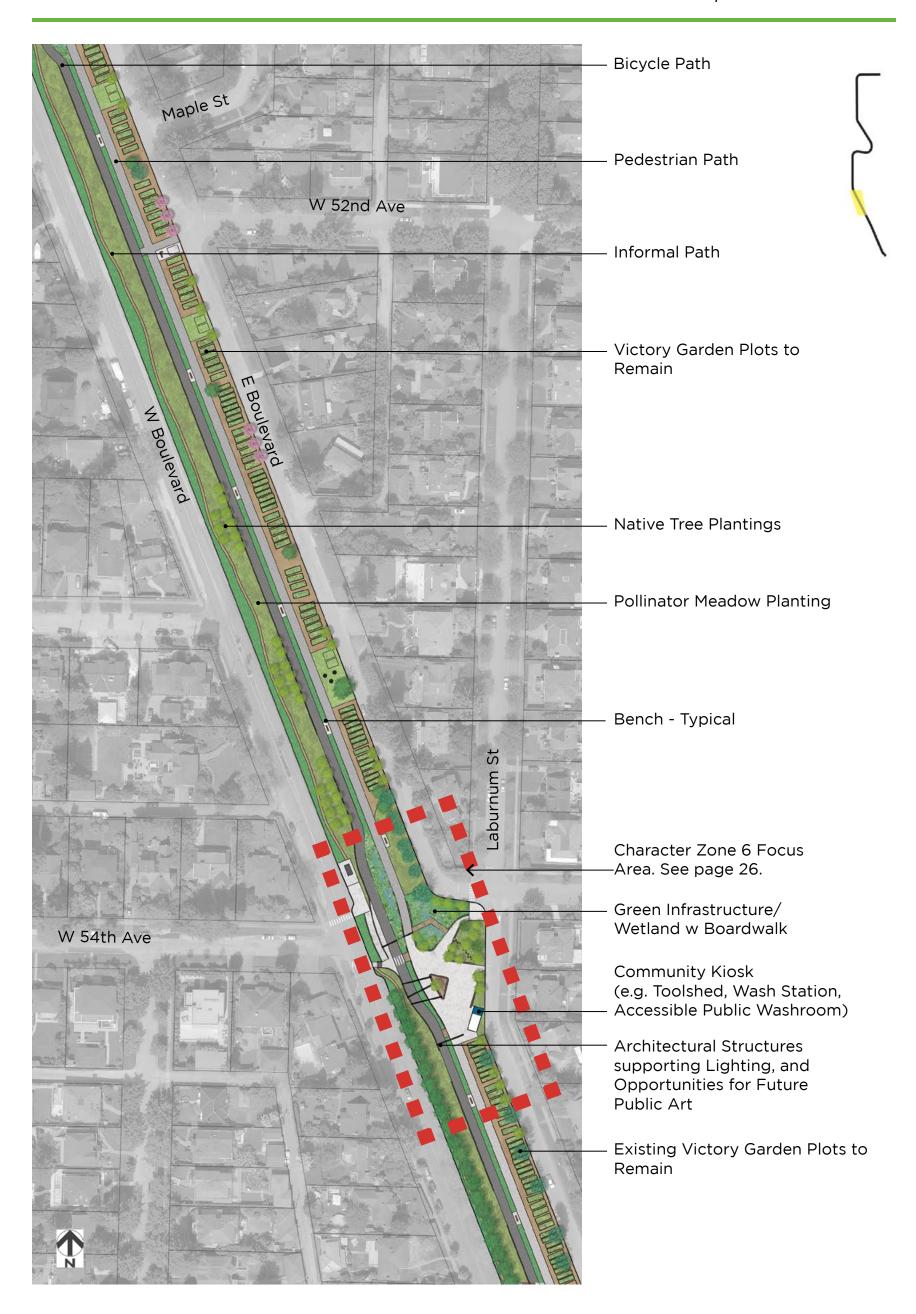


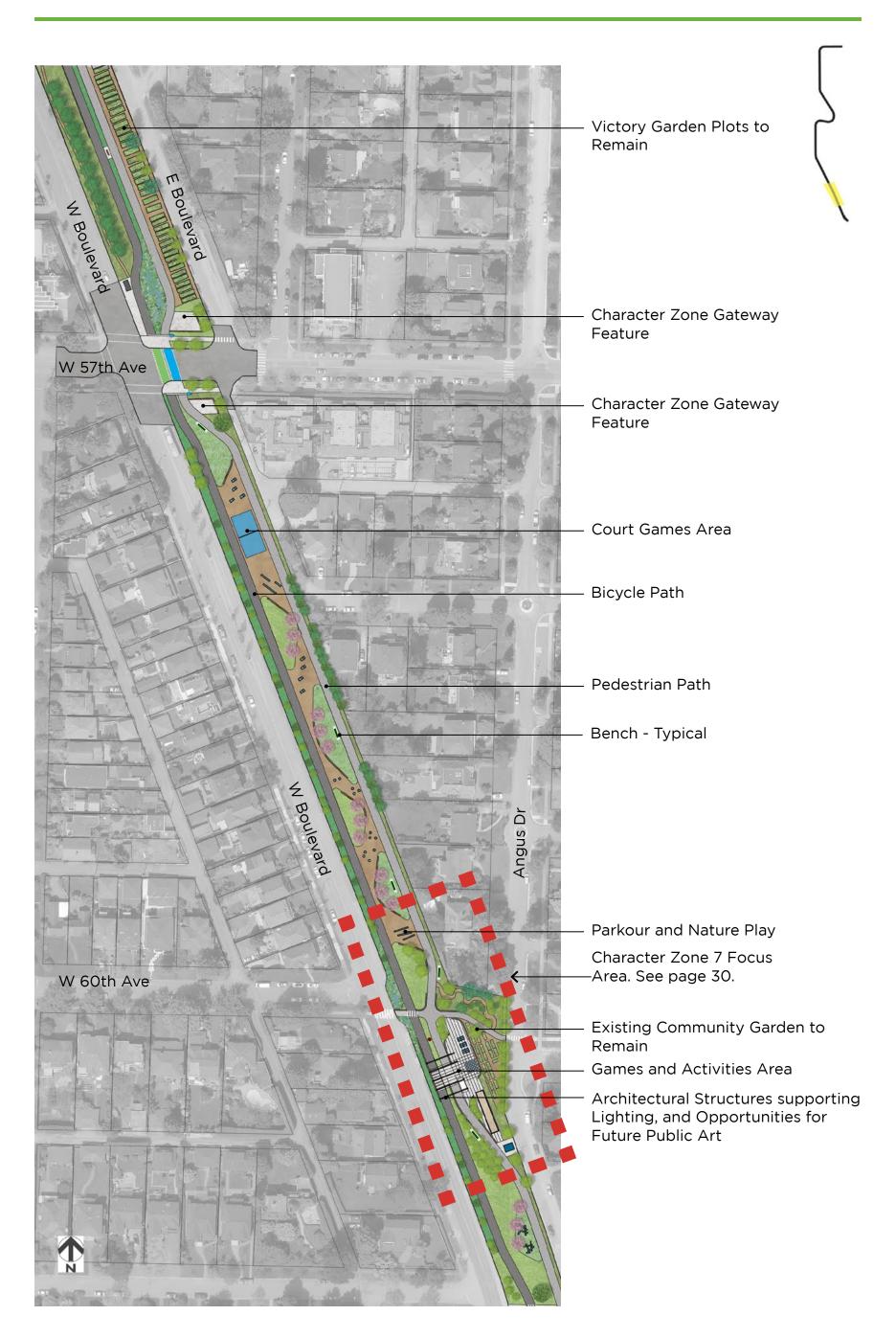






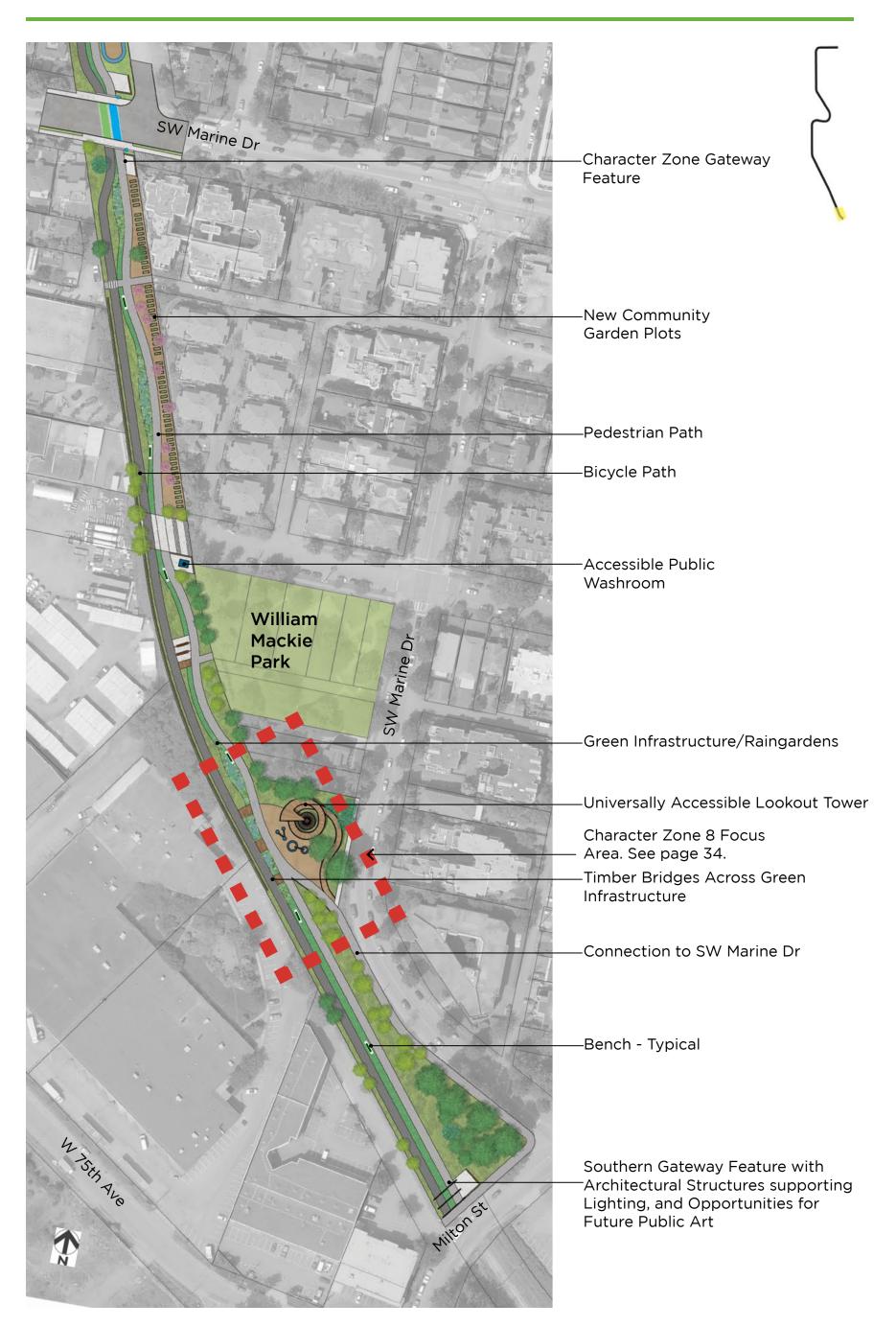












Next Steps

The Arbutus Greenway has the potential to become a defining element of Vancouver's urban landscape as a public space for walking, wheeling, cycling and streetcar. This report has illustrated a design vision for the Arbutus Greenway, based upon the planning, design and engagement process undertaken to date.

While these pages provide a high-level masterplan for the future Arbutus Greenway, there will be many steps required to create a destination which fosters both movement and rich social interaction. Foremost among these steps are: detailed design, further public engagement, and continued collaboration with MST Nations on the overall design of the future greenway.

Subject to Council's endorsement of design vision, detailed design will progress for the extension of the greenway to the Fraser River and False Creek, as well as select character zones. Construction of these select sections is anticipated to occur within the 2019-2022 Capital Plan.

Appendix C

Appendix C Arbutus Greenway Implementation Strategy

Contents:

Executive Summary

- 1. Background
- 2. Design Vision and Character Zones
- 3. Evaluation Framework
- 4. Discussion of Results
- 5. Summary of Recommendations
- 6. Funding Mechanisms
- 7. Conclusion

Executive Summary

Introduction

The Arbutus Greenway is intended to be delivered over many years and several City of Vancouver Capital Plans. This document describes an implementation strategy that can guide the construction of the Arbutus Greenway. It includes an overview of the greenway's design vision, and an evaluation framework that has been used to evaluate phasing options and determine recommendations for delivery of Phase 1 design and construction.

Design Vision and Character Zones

The Arbutus Greenway Design Vision proposes a broad range of public realm and active transportation improvements along the entire corridor including fully segregated walking and cycling pathways, public gathering areas, site furniture (e.g. benches, drinking fountains) and public washrooms, lighting, green infrastructure and extensive areas of native vegetation. A key feature of the Design Vision is the division of the greenway into the following eight character zones that reflect local site conditions and features:

- Character Zone #1: Harvest Table (Fir Street to West Broadway)
- Character Zone #2: Electric Alley (West Broadway to West 16th Avenue)
- Character Zone #3: The Ridge (West 16th Avenue to King Edward Avenue)
- Character Zone #4: Woodland Bend (King Edward Avenue to West 37th Avenue)
- Character Zone #5: Kerrydale Pass (West 37th Avenue to West 49th Avenue)
- Character Zone #6: Garden Path (West 49th Avenue to West 57th Avebue)
- Character Zone #7: Marpole Meander (West 57th Avenue to Southwest Marine Drive)
- Character Zone #8: The Lookout (Southwest Marine Drive to Milton Street)

The character zones vary in complexity and length with Zone 4 being the longest (2km) and Zone 8 the shortest (0.5km). Each character zone includes a public washroom either as a stand-alone item or as shared feature with an adjacent park. In addition, the design of each character zone has, where possible, taken into account the future streetcar alignment when determining the placement of the walking and cycle paths to minimize post-streetcar removal and reconstruction.

Delivering The Greenway

It is anticipated that the construction of the greenway will occur across at least four successive capital plans, with the current intention to construct two character zones during each capital plan cycle, leading to completion of the entire greenway by 2034. This will be subject to future Council priorities and funding available at the time.

In addition to the long-term character zone development, this strategy also prioritizes connectivity between False Creek and the Fraser River, collaboration with Parks planning, and undertaking a number of 'spot improvements' to be introduced over the next four years. These improvements will ensure there is a minimum standard of treatment for walking and cycling pathways across the entire temporary greenway path while future character zone development is phased in.

Note: Character zone names are temporary. Collaboration will take place with Musqueam, Squamish, and Tsleil-Waututh Nations regarding naming of places for the greenway.

Evaluation Framework

The following 10 criteria form a comprehensive evaluation framework that will help identify priorities and potential sequencing in the construction of the greenway.

- 1. Visibility
- 2. Project readiness
- 3. Connectivity
- 4. Equity
- 5. Safety
- 6. Relative cost
- 7. Population density
- 8. Land Use Related city wide and neighbourhood planning initiatives
- 9. Transit Current and future transit considerations
- 10. Parks Current and future parks planning initiatives

The Arbutus Greenway project team evaluated each of the character zones against the 10 criteria, with each criterion given a score of between 1 and 4. Two separate scales were developed, one providing rationale for advancement, the other providing rationale for postponement. The methodology and preliminary conclusions were discussed with the Arbutus Greenway Steering Committee and subsequently refined to reflect input from cross-divisional staff teams.

In addition, consideration was given to priorities beyond the character zones illustrated in the Design Vision, including providing connections to False Creek and the Fraser River, adjacent land use planning initiatives, and spot improvements. Results from this evaluation were used to inform recommendations for Phase 1, which are anticipated to be delivered over the next four years. The remaining three phases will be subject to Council priorities, project coordination opportunities (e.g., transit and park projects), and available funding.

Summary Of Recommendations

The evaluation led to the following recommendations for implementation of Phase 1 by 2022. The recommendations are subject to funds being available. If only partial funding is available than it is possible that Zone 8 and or Zone 3 will be partially developed, with final completion deferred to a future capital plan.

Phase 1: 2018 - 2022

- A southern extension of the greenway to Hudson Street street-end park at the Fraser River
- A northern extension of the greenway to False Creek and the Seawall (Seaside Greenway)
- Zone 8 The Lookout: Southwest Marine Drive to Milton Street
- Zone 3 The Ridge: West 16th Avenue to King Edward Avenue
- Short-term spot improvements to improve safety and comfort for people walking, wheeling, and biking
- City and Park Board staff to work on integrating the greenway with the park development initiatives planned for Zone 1 (West 6th Avenue and Fir Street: Delamont Park)

Subsequent phases will be determined in conjunction with future Council priorities, and availability of funding.

1. Background

About the Greenway

The Arbutus Corridor is an 8.8-km stretch of land previously owned by the Canadian Pacific Railway (CPR) that extends from near West 1st Avenue in the north to Milton Street in the south. It is located on the unceded territories of the Musqueam, Squamish and Tsleil-Waututh Nations.

From 1902 until 2001 the Arbutus Corridor was part of a regional freight and interurban passenger train service. The City purchased the Arbutus Corridor from CPR in March 2016 for the purpose of creating a transportation greenway, including walking, wheeling, cycling, and future streetcar. The City constructed temporary pathways along the corridor for walking, wheeling, and cycling, as an interim condition, to enable people to become familiar with the corridor prior to the development of the Arbutus Greenway Design Vision.

In 2017, the City began work on an overarching design for the greenway. The resulting Arbutus Greenway Design Vision is the product of five rounds of public engagement and a number of stakeholder workshops that:

- helped to establish a vision for the greenway's future
- explored a diverse range of possible activities and experiences for the future greenway
- evaluated design proposals including the use of character zones to help define the future greenway.

The Arbutus Greenway Design Vision provides a highlevel guide as to how the greenway will develop over time. City staff will finalize the detailed Master Plan in 2019, which will provide more detail on key design elements of the Design Vision. Detailed design of each of the greenway's segments will occur over time.





2. Design Vision and Character Zones

Design Vision

The Arbutus Greenway Design Vision proposes a broad range of public realm and active transportation improvements along the entire corridor including fully segregated walking and cycling pathways, public gathering areas, site furniture (e.g. benches, drinking fountains) and public washrooms, lighting, green infrastructure and extensive areas of native vegetation, while also taking into consideration the future streetcar alignment. It reflects both a comprehensive evaluation of the social, geographical and historical attributes of the greenway's corridor, as well as extensive community input that took place over 16 months. The input explored such topics as the values and principles that should guide the design of the future greenway, activities and experiences that could occur along the greenway, and the evaluation of design proposals for different sections of the greenway.



Character Zones

A key feature of the Design Vision is the division of the greenway into the following eight character zones that reflect local site conditions and features:

- Character Zone #1: Harvest Table (Fir Street to West Broadway)
- Character Zone #2: Electric Alley (West Broadway to West 16th Avenue)
- Character Zone #3: The Ridge (West 16th Avenue to King Edward Avenue)
- Character Zone #4: Woodland Bend (King Edward Avenue to West 37th Avenue)
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- Character Zone #6: Garden Path (West 49th Avenue to West 57th Avebue)
- Character Zone #7: Marpole Meander (West 57th Avenue to Southwest Marine Drive)
- Character Zone #8: The Lookout (Southwest Marine Drive to Milton Street)

The character zones vary in complexity and length with Zone 4 being the longest (2km) and Zone 8 the shortest (0.5km). Each character zone includes a suite of amenities including benches, lighting, bike racks, and a public washroom either as a stand-alone item or as a shared feature with an adjacent park. In addition the design of each character zone has, where possible, considered the future streetcar alignment when determining the placement of the walking and cycle paths to minimize removal and reconstruction when the streetcar is implemented.

As construction of the greenway corridor will occur in phases the advantage of the character zones is they provide clearly defined segments that can, to a large extent, be constructed independently of one other. The character zones are illustrated opposite.



Zone 1: Harvest Table



Zone 2: Electric Alley



Zone 3: The Ridge



Zone 4: Woodland Bend



Zone 5: Kerrydale Pass



Zone 6: Garden Path



Zone 7: Marpole Meander



Zone 8: The Lookout



Overview of Character Zones

3. Evaluation Framework

Overview

The evaluation criteria reflect a broad range of implementation considerations including visibility and profile, existing site conditions and context, ability to enhance safety, relative cost, population density and alignment with relevant planning and transit initiatives. The criteria were scored using the following scale: Very High (4); High (3); Moderate (2); and Low (1). Overall the criteria are organised into two categories:

- Reasons for advancing the zone forward in the construction sequence
- Reasons for postponing the zone in the construction sequence

Reasons for Advancement

- A. Visibility: Character zones that can be seen by the highest number of people (higher volume of greenway users, visibility from nearby routes), and showcase the greenway score highest.
- B. Project readiness: Where there are few site constraints and construction is relatively simple, a high score is awarded. Conversely, areas that present challenges regarding existing utilities or more complex construction requirements (such as retaining walls) are awarded a lower score.
- Connectivity: Areas with significant potential to improve local connectivity by linking to bike paths, walking routes, and popular destinations such as schools, libraries, community centres, parks, and the waterfronts score highest.
- D. Equity: Consideration is given to geographic location and serving the needs of local populations, with particular regard for proximity to open space. Higher scores are awarded to areas that have a greater need for amenities.
- E. Safety: Quick and significant improvements to enhance safety provide rationale for advancement. Areas scoring highest in this category include those with opportunities that improve safety (e.g. intersection improvements where staff have heard concerns).
- F. Relative cost: Relative costs have been assessed that reflect the complexity of the design in each character zone. Zones with more significant engineering and architectural features resulted in a lower score. In general the zones have been scored as follows:
 - Score 4: Low Complexity/Cost
 - Score 3: Moderate Complexity/Cost
 - Score 2: High Complexity/Cost
 - Score 1: Very High Complexity/Cost

- G. Population density: Greenway segments that will serve a higher population base score higher than those with relatively low surrounding population.

 Based on 2016 census data the average population per hectare living within 1km of the greenway ranges from 26 to 103 per hectare, Scores have been given as follows:
 - Score 4: over 80 people per hectare
 - Score 3: 61 80 people per hectare
 - Score 2: 40 60 people per hectare
 - Score 1: Under 40 people per hectare

Reasons for Postponement:

- H. Land use planning informing design: In areas where long-term planning is underway or anticipated, it is recommended that the greenway design be implemented after this takes place to ensure consistency between projects.
- I. Transit development informing design: Where future transit is expected to impact the design, such as the Millennium Line Broadway Extension, postponement is recommended so that the greenway may be delivered in alignment with transit development and to avoid extensive reconstruction.
- J. Parks planning informing design: Where future Park Board planning is expected to inform the design and requires a comprehensive park design process, postponement is recommended until park design direction is clear to ensure a collaborative approach and integrated design.

Scoring

	Character Zone							
Criteria for Advancement	1 Harvest Table	2 Electric Alley	3 The Ridge	4 Woodland Bend	5 Kerrydale Pass	6 Garden Path	7 Marpole Meander	8 The Look- out
A. Visibility	3.5	2.8	3.5	1.3	3.3	1.8	1.7	2.2
B. Project readiness	2.0	1.3	3.8	1.8	1.5	2.5	2.5	3.0
C. Connectivity	2.8	2.8	2.2	2.2	3.3	2.0	2.5	2.5
D. Equity	2.2	2.0	2.2	1.5	2.5	2.3	2.3	3.8
E. Safety	2.3	2.5	2.8	2.5	3.5	1.5	1.3	2.0
F. Relative cost	3.0	1.0	3.0	3.0	2.0	4.0	4.0	2.0
G. Population density	4.0	4.0	1.0	1.0	2.0	1.0	2.0	4.0
Advancement score	19.8	16.4	18.3	13.3	18.2	15.2	16.3	19.5

NB: A higher score indicates a strong rationale for advancement in the categories above

Criteria for Postponement	1 Harvest Table	2 Electric Alley	3 The Ridge	4 Woodland Bend	5 Kerrydale Pass	6 Garden Path	7 Marpole Meander	8 The Look- out
H. Land use planning informing design	2.8	3.2	1.2	2.2	3.8	1.0	1.2	1.2
I. Transit development informing design	2.8	3.3	1.0	1.2	2.5	1.0	1.0	1.0
J. Parks planning informing design	2.3	1.0	1.0	1.3	3.5	1.0	1.7	1.3
Postponement score	8.0	7.5	3.2	4.7	9.8	3.0	3.8	3.5

NB: A higher score indicates a strong rationale for **postponement** in the categories above

RESULTING RECOMMENDATION	1 Harvest Table	2 Electric Alley	3 The Ridge	4 Woodland Bend	5 Kerrydale Pass			8 The Look- out
TOTAL	12	9	15	9	8	12	12	16

NB: Total score = Advancement score minus postponement score. A higher score indicates rationale for advancement

4. Discussion of Results

Rationale for Advancement

This section provides background rationale to the scores assigned under each of the 10 evaluation criteria.

- A. Visibility In areas where there is a large population and where the greenway or surrounding streets are well used, or there is a nearby destination that already attracts people to the zone, there is rationale for these areas to showcase features of the greenway in the near term. Zone 1, Zone 3 and Zone 5 scored highest in this category with a score of 3 or 4. These areas are among the most used stretches of the greenway and are also highly visible from surrounding streets.
- B. Project Readiness Certain areas along the greenway will require upgrades to or relocation of utilities, the design and construction of complex retaining walls, and integration with surrounding development before they are ready to be implemented. As such, there is rationale for advancing the zones where design and construction are relatively simple. Zone 3 (The Ridge) scored highest in the project readiness category with a score of 4. In this zone there is no hydro infrastructure affecting design/implementation and the retaining walls required are relatively short and simple to construct. The second highest scoring was Zone 8 (The Lookout) with a score of 3. This section is the shortest stretch along the greenway and requires relatively little utility work, and has few encumbrances, therefore making it a good contender for advancement.
- C. Connectivity The greenway as a whole provides excellent connectivity across the west side of the city and between neighbourhoods. A high score was given to areas where connectivity will be particularly enhanced between open spaces, parks, destinations, transit, and pedestrian or cycle routes. Opportunities for connectivity scored highest in Zone 5 (Kerrisdale) as the greenway will connect to the future B-Line along 41st Avenue and there is also opportunity for increased connectivity to Kerrisdale Park, Point Grey Secondary, and Kerrisdale Community Centre and Library.

This is closely followed by Zone 1 and Zone 2, which connect to frequent transit services along West Broadway, and also to shopping areas, schools, and community facilities in Kitsilano. In addition, the northern greenway extension at Zone 1 will create

- improved connectivity to False Creek, Granville Island, and the Seawall. Improvements to Zone 7 and Zone 8 will enhance connectivity to the Marpole neighbourhood and shopping area and to the Fraser River. Potential for improved connectivity to Riverview Park was noted in Zone 7.
- D. Equity -Equity refers to the quality of being fair and equal. Along the greenway, certain neighbourhoods have a high proportion of amenities, while others have relatively few. In the interest of creating complete communities there is rationale to prioritize greenway implementation in areas that are currently relatively low on green space / recreational facilities / active transportation opportunities, particularly relative to population density or population needs. There is also rationale to bring forward zones where relationships with Musqueam, Squamish, and Tsleil-Waututh can be strengthened and where connections to land will be created, for example at the northern and southern ends of the greenway. In this category Zone 8 scored highest, followed by Zone 5, Zone 6 and Zone 7.
- E. Safety Although the temporary pathway is considered safe for users, there is still room for improvement in certain areas. In particular, some existing intersections are considered challenging and changes could provide safety improvements. Zone 5 scored highest in this category as there is an opportunity to enhance safety by simplifying the 41st Avenue crossing. Zone 3 was considered the second priority in this category, containing two fairly challenging intersections at 16th Avenue and King Edward Avenue. Redesign of both intersections will provide significant safety benefits. Note: A number of spot improvements are also proposed which will enhance safety in the near term; see section 5 for details.
- F. Relative cost Scores for relative cost were based on the complexity of the design in each character zone. In zones where engineering and architectural features and elements are more complex and intensive, the cost will inevitably be higher and therefore the score given lower. Zone 6 and Zone 7 have the lowest relative cost, followed by Zone 1, Zone 3, and Zone 4. Note: Discussion on funding mechanisms is contained in Section 6 of this strategy.

G. Population density - Scores are based on 2016 census data for the average population per hectare. Overall, the average population density living within 1km of the greenway was 50 people per hectare. For individual zones this ranged from 26 people per hectare (in Zone 3 and Zone 6) to 103 people per hectare (in Zone 2). The Zones with the highest population density (over 80 people per hectare) were Zone 1, Zone 2 and Zone 8, scoring 4 in this category.

NB: Score of 4 represents strong rationale for advancement in the categories above.

Rationale for Postponement

- H. Land Use Planning In order to ensure a coordinated approach between planning initiatives and the delivery of the greenway, postponement is recommended in certain areas where land use studies, plans, and changes are anticipated. Zones 1 and 2 will be impacted by the Broadway Planning Process and have therefore scored 3. In addition, a neighbourhood centre plan is anticipated for Kerrisdale Village (Zone 5) and further planning work may occur around Arbutus Village (Zone 4) as identified in the Arbutus Ridge, Kerrisdale, Shaughnessy (ARKS) Community Vision; these zones score 4 and 2 respectively. Zones 7 and 8 have already had community planning work as part of the Marpole Community Plan process and implementation of this plan is ongoing; they subsequently each scored 1. Planning work is not currently anticipated for Zone 3 and Zone 6. As such, these zones also scored 1.
- I. Transit Development Transit planning will take place in connection with the Broadway Extension and is anticipated to be a fairly lengthy process. Therefore there is rationale to postpone implementation of Zones 1 and 2 until transit designs are finalized. Consequently these zones scored 3. The B-line is anticipated along 41st Avenue in fall 2019. This service will require stops at the greenway in Kerrisdale. Therefore Zone 5 scored 2 in this category.
- J. Parks Planning Among the six parks located adjacent to the greenway, those in Zone 4 (Quilchena) and Zone 7 (Riverview) are not scheduled for updating in the near term. Similarly, Kerrisdale Park in Zone 5 will be the subject of a long-term planning that will assess future community recreation facilities (arena/pool/community centre/library). Meanwhile the parks in Zone 1 (W 6th and Fir, and Delamont Park) are surfacing as near term projects for the Park Board. For this reason, Zone 1 scored a 2 overall on the postponement scale, while Zone 5 (Kerrisdale) scored 4.

NB: Score of 4 represents strong rationale for postponing in the categories above.

5. Summary of Recommendations

Summary of Recommendations

The evaluation led to the following recommendations for implementation of Phase 1 by 2022, subject to funding availability:

- A southern extension of the greenway to Hudson Street street-end park at the Fraser River
- A northern extension of the greenway to False Creek and the Seawall (Seaside Greenway)
- Zone 8 The Lookout: Southwest Marine Drive to Milton Street
- Zone 3 The Ridge: West 16th Avenue to King Edward Avenue
- Short-term spot improvements to improve safety and comfort for people walking, wheeling, and biking
- City and Park Board staff to work on integrating the greenway with the park development initiatives planned for Zone 1 (West 6th Avenue and Fir Street: Delamont Park)

These recommendations are subject to funds being available. If only partial funding is available than it is possible that Zone 8 and or Zone 3 will be partially developed, with final completion deferred to a future capital plan. Subsequent phases will be determined in conjunction with future Council priorities, and availability of funding.

The following section discusses recommendations for Character Zone delivery, north-south extensions and connections, collaboration with Parks and Planning, and short-term spot improvements.



Character Zones

The evaluation framework was used to take into consideration factors that either support advancement or suggest postponement of each of the eight character zones. The evaluation led to the following recommendations for implementation of Phase 1, subject to funding availability:

Phase 1: 2018 - 2022

- The Lookout Southwest Marine Drive to Milton Street (Zone 8)
- The Ridge West 16th Avenue to King Edward Avenue (Zone 3)

Further detail:

Zone 8 (The Lookout) scored very well in terms of project readiness, connectivity, equity, and population density. Across these categories the Lookout scored either a 3 (high) or 4 (very high). Transit, Parks, and Planning initiatives that could impact the future design and construction are considered limited, and therefore rationale for postponement is considered to be low.

Zone 3 (The Ridge) scored very well in terms of visibility, project readiness, safety enhancements, and a relatively low cost of construction. In all these categories a score of 3 (high) or 4 (very high) was given as rationale for advancement. At the same time there was little to no rationale for postponement, as few changes are anticipated with regard to planning and transit that would directly affect greenway design or implementation of this character zone.

Subsequent phases of character zone implementation will be determined in conjunction with Council priority, access to funds, and priorities at the time.

Phases 2-4: 2022 - 2034 (listed in no particular order)

- Harvest Table Fir Street to West Broadway (Zone 1)
- Electric Alley West Broadway to 16th Avenue (Zone 2)
- Woodland Bend King Edward Avenue to West 37th Avenue (Zone 4)
- Kerrydale Pass West 37th Avenue West 49th Avenue (Zone 5)
- Garden Path West 49th Avenue to West 57th Avenue (Zone 6)
- Marpole Meander West 57th Avenue to Southwest Marine Drive (Zone 7)

North-South Extensions and Connections

A primary objective for the project is to enable safe and comfortable travel between False Creek and the Fraser River for all ages and abilities, in order to ensure the greenway is fully integrated into the City's active transportation network. Connections will also be addressed as a key priority in Phase 1, as follows:

Southern greenway extension to Hudson Park and Fraser River:

- A fully-accessible walking, wheeling, and cycling connection from the greenway terminus to the Fraser River
- Low and high intensity landscaping, such as lighting, benches, bike racks, and wayfinding
- Improvements to unsignalized intersection at Milton Street

Northern greenway extension to False Creek

 Walking and cycling link along Pine Street and West 1st Avenue to the Seawall

Collaboration with Park Board

Collaboration is anticipated with the Park Board on upcoming planning and design for the Fir Street and 6th Avenue Park, which is expected to be advanced in the next Capital Plan, as well possible changes to Delamont Park to ensure the greenway and parks are well integrated.

Short-term Spot Improvements

Although the entire length of the temporary pathway is functional at present, certain areas do not meet aspirations for pathway widths and separation between modes. There are also opportunities for short-term improvements such as landscaping, benches and bike racks, wayfinding and lighting. Subject to funding, these and other spot improvements are anticipated to take place in the next four years as part of the 2019-2022 Capital Plan.

Spot improvements recommended for the next four years include:

Interim construction in Character Zone 5 (Kerrydale Pass)

- Improvement to walking and cycling pathways, including plazas
- Low- and high-intensity landscaping, including lighting, benches, bike racks, play area, wayfinding and public art
- Improvements to signalized intersection at West 41st Avenue

Spot improvements to Character Zone 1 (Harvest Table)

- Removal of bark mulch trail and widening of current asphalt pathway to achieve consistent width of at least 2.5m for walking and wheeling along the entire greenway
- · Low-intensity landscaping

Spot improvements to Character Zone 4 (Woodland Bend)

- Removal of bark mulch trail and widening of current asphalt pathway to achieve consistent width of at least 2.5m for walking and wheeling along the entire greenway
- Low-intensity landscaping

6. Funding Mechanisms

Overview

The following funding sources are intended to help pay for the purchase / proposed development of the greenway:

- Revenue generated from "Excess Lands" or "Surplus Lands"² that are part of or adjacent to the corridor, but not needed for future greenway purposes;
- Strategic partnerships with senior levels of government;
- Community Amenity Contributions (CACs)
- Integration into capital planning.

However it is important to note that as and when funding becomes available, the sequencing of short- and long-term elements may adapt accordingly. An overview of the funding sources is outlined in the following section.

Potential Excess or Surplus Lands

As part of the project mandate, and to help fund and deliver the greenway, City staff looked at potential opportunities for "Excess Lands" and "Surplus Lands" based on the proposed design of the greenway. Particular consideration was given to availability of potentially developable space on the greenway, availability of potentially developable space immediately adjacent to the greenway, and existing site characteristics (such as the slope of the land, surrounding context, and adjacent transportation requirements).

Based on preliminary review, no Excess Lands (except the 'Option Lands' defined in the Arbutus Railway Line Purchase Agreement) within the boundaries of the purchased Arbutus Corridor have been identified thus far. However, through further analysis, staff identified one area of Cityowned land outside the purchased corridor that may be deemed surplus and not required for greenway or other city purposes, such as transportation. The area identified as potentially surplus is along East Boulevard between West 37th Avenue and West 40th Avenue.

This area is distinct from the Excess Lands described previously because it lies entirely outside the corridor purchased from CPR. This presents an opportunity to use these lands for other purposes, such as development, and use revenue generated by them to fund the purchase and implementation of the Arbutus Greenway. The appropriate type and scale of potential development requires further investigation and community engagement by staff. Any potential rezoning of these lands would need to be considered within a future planning process that includes extensive public engagement and additional transportation analysis.

Strategic Partnerships with Senior Levels of Government

With significant alignment in priorities between municipal, regional, provincial, and federal governments, the City is poised to participate in senior government funding programs as well as other innovative, cross-agency partnership opportunities. The City will actively work with the federal, provincial, and regional governments to secure senior government funding and support implementation of the Greenway Design Vision, as opportunities arise.

¹ "Excess Lands" are defined as any portion of the Arbutus Corridor purchased from CPR that is not needed for walking, cycling, or future streetcar (light rail) uses as determined by the City.

² "Surplus Lands" are defined as City-owned lands adjacent to the Arbutus Corridor that may not be needed for greenway or road-based transportation purposes.

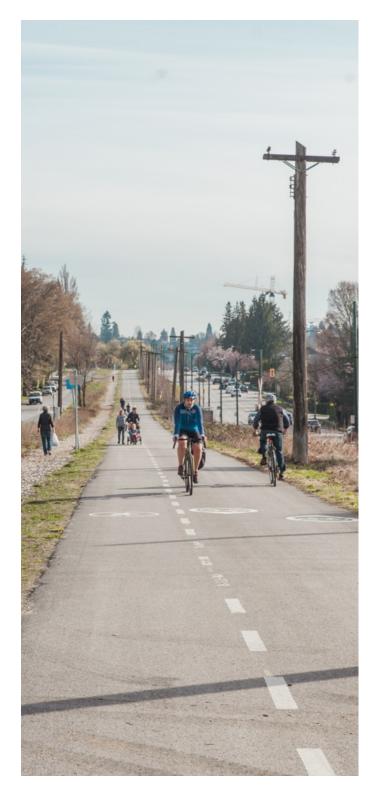
Community Amenity Contributions (CACs)

Community Amenity Contributions (CACs) are in-kind or cash contributions provided by property developers when City Council grants development rights through rezoning. The demand on City facilities increases with rezonings because of new residents and employees in the area. To lessen the impact on the community, CACs address this increased demand by adding and expanding City facilities.

CACs will be allocated depending on local priorities and applicable public benefits strategies, balancing needs such as affordable housing, childcare, transportation, parks and public realm improvements.

Integration into Capital Planning

The City of Vancouver's capital plan is a four-year financial plan for investments in our City's facilities and infrastructure. Capital plans match the term of Council, and allow for a vote on borrowing money to be held at the same time as the civic election. The Arbutus Greenway is currently intended to be delivered over four capital plans, with the first phase primarily funded through Capital Plan 2019-2022. The proportion of funding distributed to each program is based on a variety of factors, including the condition of existing assets and City priorities guiding new investments. Each program area includes a mix of renewing of existing facilities and infrastructure and creating new amenities.



7. Conclusion

In summary, this document sets out a framework for the implementation of the Arbutus Greenway Design Vision. The evaluation framework provides a methodology to measure factors that suggest advancement of construction of each greenway character zone versus factors that suggest postponement. During this evaluation, particular focus was given to Phase 1, which is intended to take place between 2019 and 2022. For subsequent phases, it is recommended that the criteria be re-evaluated as appropriate, taking into consideration future Council priorities and other factors affecting phasing at the time.

Implementation of the greenway will include ongoing partnerships with Musqueam, Squamish, and Tsleil-Waututh, and collaboration with community-based groups, residents, businesses, and senior levels of government. The participation and capacity of these groups is essential in realizing the goals of this plan. There will be continuing opportunities for the public to be involved in further work to implement the Arbutus Greenway Vision during detailed design of each zone. City staff will finalize a detailed Master Plan for the Arbutus Greenway in 2019 which will elaborate on the context of the corridor, and provide additional detail on key elements of the Design Vision.