

Governance and Priorities Committee Report For the June 12, 2014 Meeting

То:	Governance and Priorities Committee Date: May 26, 2014
From:	Dwayne Kalynchuk, P. Eng., Director of Engineering and Public Works
Subject:	Johnson Street Bridge Replacement Project Public Realm Update

Executive Summary

This report brings forward new drawings of the public realm areas for the Johnson Street Bridge Replacement Project.

In July 2012 Council was presented with results of public engagement sessions specific to the public realm areas of the new Johnson Street Bridge. The report included recommendations for additions to the public realm based on public input, including the addition of new sidewalk and pedestrian crossings, plaza amenities, traffic calming measures, and naturalized landscaping including exposed bedrock. A finalized Public Realm and Landscape Design Strategy was brought forward to Council in October 2012.

In September 2013, Council requested that staff bring forward more information related to the public realm for the bridge to help inform further discussions regarding public art.

Recommendation:

That Council receive this report for information.

Respectfully submitted,

Dwayne Kalynchuk, P. Eng., Director of **Engineering and Public** Works

Date:

Ken Jarvela, P. Eng. Senior Project Manager **JSB Replacement Project**

Engineering and Public Works

Katie Hamilton Director of Communications and Civic Engagement

Report accepted and recommended by the City Manager:

JUN 3

Governance and Priorities Committee Report Johnson Street Bridge Replacement Project Public Realm Update

Purpose

This report brings forward new drawings of the public realm areas for the Johnson Street Bridge Replacement Project.

Background

In July 2012 Council was presented with results of public engagement sessions specific to the public realm areas of the new Johnson Street Bridge. The report included recommendations for additions to the public realm based on public input (Appendix A), including the addition of new sidewalk and pedestrian crossings, plaza amenities, traffic calming measures, and naturalized landscaping including exposed bedrock. A finalized Public Realm and Landscape Design Strategy (Appendix C) was brought forward to Council in October 2012.

In September 2013, Council requested that staff bring forward more information related to the public realm for the bridge to help inform further discussions regarding public art.

Overview of Public Consultation

In the summer of 2012, the City consulted the public to seek input on the public realm elements of the Johnson Street Bridge Replacement Project. 130 people attended the session in June and more than 80 people attended the second session in July.

As a result of the first session in June, 124 surveys were received in addition to written submissions from both the Downtown Residents and Victoria West Community Associations and the Greater Victoria Cycling Coalition. The input (Appendix A) was very constructive and a number of themes emerged from the feedback:

- The area is very much seen as a transportation hub, with a desire for enhancing walk ability and cycling connections and improving overall accessibility;
- Animation of the public realm supporting opportunities for social gathering through community events, festivals, and entertainment in the plaza areas and new green space area;
- Creating opportunities to sit and view the harbour;
- Improving overall safety and introducing elements to encourage traffic calming;
- The approaches are considered gateways to neighbourhoods.

When asked where to prioritize the public realm budget of \$1.3 million, the top priorities were:

- Investing in landscaping;
- Plaza amenities;
- Pathway lighting / pedestrian and cyclists' safety.

In terms of prioritizing investment in plazas, the two south plazas were ranked as most important. The south west plaza was seen to be an opportunity for social gathering and harbor viewing. The south east plaza was seen to be an opportunity for harbour viewing and trail connections. The north east plaza was seen to be a trail connection and social gathering point.

Overall, as a result of the community input, proposed refinements touched on themes such as connectivity, traffic calming, plaza areas, landscaping, and treatment of retaining walls.

Upon the City's review of this feedback, the intention of the second session in July was to close the loop with the community in terms of what was heard and demonstrate how it influenced the project design. Changes based on the input included additional sidewalks and pedestrian crossings, plaza amenities, traffic calming measures, and naturalized landscaping including exposed bedrock. The draft public realm plans produced by Sharp and Diamond, which reflected changes from the public sessions, were presented at the Governance and Priorities Committee meeting (GPC) on July 26, 2012. The final documents produced were provided to the proponents to assist them in the preparation of their proposal. These documents were also available on the Johnson Street Bridge website and shared with the Vic West Community Association and the Downtown Residents Association.

The public realm report presented at the GPC meeting on October 4, 2012 focused on the objectives, strategy, design, and components of the public realm within the project scope. It offered insight to the design rationale behind the landscape design: the scale of spaces; the connections between these spaces; how these spaces might be used; and what combinations of materials were considered. Consideration of, and integration with adjacent development was included.

Issues & Analysis

In 2016, Victoria citizens will have a new bridge connecting downtown Victoria with Victoria West and neighbouring municipalities. The new bridge will provide improved safety and improved connectivity for pedestrians and cyclists and also creates three new plaza spaces for people to gather, meet and enjoy the harbour views.

Connectivity

More than 50 per cent of the new bridge will be dedicated to pedestrians and cyclists. The new bridge will include on-road bike lanes, a multi-use trail for pedestrians and cyclists, and a dedicated pedestrian pathway, in addition to maintaining three lanes for vehicles.

The new bridge will help improve pedestrian (Appendix D) and cycling (Appendix E) connectivity for the region by creating a new downtown trailhead for the Galloping Goose, Lochside, and E&N Trails. Connectivity will also be enhanced at Esquimalt and Harbour Roads with the inclusion of a multi-use overpass connecting the E&N Trail with the Galloping Goose and Lochside Trails.

The future David Foster Way will link with the bridge's new pedestrian walkway, passing underneath the bridge and through the bridge wheel. This new connection will improve pedestrian and cycling connectivity between the Victoria West Westsong Walkway, the north end of downtown, and the Inner Harbour.

Additional connectivity improvements in the area include the addition of "elephants-feet" bicycle crossings at the end of the multi-use trail, a new sidewalk connection on the west side of Wharf Street, and a four-way crosswalk at Harbour and Esquimalt Roads with sidewalk connections leading up to the bridge on both sides of Esquimalt Road.

Plaza Spaces

The bridge will feature three new public plaza spaces; two on the east side of the bridge and one on the west side.

The new north east plaza (Appendix F) with be located beside the new Janion development and will serve as the trailhead for the region's Galloping Goose, Lochside, and E&N multi-use trails. It will include new bike racks, a drinking fountain – accessible for pets as well as people, and new recycling and garbage receptacles. The space will provide for opportunities for future programming such as cafes, entertainment, sitting, and viewing.

The new plaza on the west side of the bridge (Appendix G) will create a new space for the public to sit and enjoy views of downtown Victoria and the Inner Harbour. It will be adjacent to the future

waterfront green space and will be designed to allow for future event and entertainment programming. It will connect with an accessible pedestrian pathway to Harbour Road and pedestrian pathway over the bridge. A staircase will connect directly to the bridge's pedestrian pathway.

The new plaza on the south east side of the bridge (Appendix H) will connect with the new bridge's pedestrian pathway and future David Foster Way. This plaza features new benches alongside new landscaped areas creating a new downtown space for people to sit and enjoy views of the harbour.

The two south plazas (Appendices H and I) will be built on top of the existing bridge's abutments. Leaving the existing bridge piers in place helps preserve existing marine habitat. Wayfinding signage is identified for each of the plazas and can be added by the City at project completion. Interpretive signage recognizing the history and significance of the area may also be added.

Approximately 20 City heritage lamps on the downtown side of the bridge will be relocated during construction and replaced in the area at project completion.

Options & Impacts

The Fixed Price Contract with PCL includes a cash allowance for the landscaping and public realm amenities. The scope of work in the cash allowance includes the following:

- plants and ground coverings;
- topsoil;
- trees, shrubs, lawn and seed mixes;
- irrigation;
- rock boulders;
- bollards and bicycle racks;
- hardwood retaining wall seats and benches;
- fountains and garbage receptacles;
- concrete seating wall;
- landscape lighting;
- electrical connections for artwork and wayfinding.

The final landscaping construction drawings were issued to PCL in May. Once plans are reviewed and approved, plans will be finalized for the work to be completed in 2015.

Recommendations

That Council receive this report for information.

Attachments

- Summary of community input Appendix A
- Public spaces overview (illustration of response to community input) Appendix B
- Public Realm and Landscape Design Strategy Appendix C
- Pedestrian connections illustration Appendix D
- Cycling connections illustration Appendix E
- North east plaza Appendix F
- West plaza Appendix G
- South east plaza looking east Appendix H
- South east plaza looking west Appendix I



JOHNSON STREET BRIDGE SUMMARY OF COMMUNITY INPUT ON PUBLIC REALM ELEMENTS JULY 2012

EXECUTIVE SUMMARY:

In June, the City hosted an information session about the public realm elements of the Johnson Street Bridge Replacement Project. 130 people attended.

124 surveys were received. 76% of the respondents indicated they were from Victoria. In addition, written submissions from both the Downtown Residents and Victoria West Community Associations and the Greater Victoria Cycling Coalition were received. The input was very constructive and a number of themes have emerged.

Common themes:

- The area is very much seen as a transportation hub, with a desire for enhancing walk ability and cycling connections and improving overall accessibility
- Animation of the public realm. Supporting opportunities for social gathering through community events, festivals, and entertainment in the plazas areas and new green space area
- Creating opportunities to sit and view the harbour
- Improving overall safety and introducing elements to encourage traffic calming
- The approaches are considered gateways to neighbourhoods

Setting priorities:

When asked where to prioritize the public realm budget of \$1.3 million, the top priorities were:

- Investing in landscaping
- Plaza amenities
- Pathway lighting / pedestrian and cyclists safety

In terms of prioritizing investment in plazas, the two south plazas were ranked as most important

- The south west plaza is seen to be an opportunity for social gathering and harbour viewing.
- The south east plaza is seen to be an opportunity for harbour viewing and trail connections.
- The northeast plaza is seen to be a trail connection and social gathering point.

Additional feedback areas:

There was no strong desire for gateway signage on either side, however, both approaches were seen to be gateways to the respective neighbourhoods and there was a desire to be treated as such with other elements such as landscaping and banner or lighting treatments.

It was felt that a combination of way-finding and interpretive signage was needed in the area

64% agreed with the proposed transit stops. 17% didn't.

Several comments were focused on the importance of preserving the rail corridor, public art and the consolidated green space. This information will inform the respective consultation processes and planning on these matters.

There were comments about the potential treatment of the walls and pedestrian overpass.

A strong majority were satisfied with the level of information and input opportunities and the majority who responded would like to continue be involved in the future.

Proposed refinements as a result of community input:

Connectivity

- Separated sidewalks on west approach where space allows
- Way-finding signage to direct pedestrians/cyclists
- Intersection with crosswalk markings at all four crossings at Esquimalt and Harbour Road intersection
- Sidewalk added on south side of Esquimalt Road to improve pedestrian connectivity. The earlier proposed pathway on the south side was removed as it may have a potential conflict with protected rail corridor.
- Enhanced crossing for pedestrians and cyclists (elephant's feet bicycle crossing) at north east trailhead. An elephant feet bicycle crossing is a new standard introduced by Transportation Association of Canada that provided dedicated, marked crossings for cyclists. This is the first crossing of this kind in Victoria, and likely one of the first in the province.
- Cyclist left turning lane (north on Wharf to access multi-use trail)
- Recognize north west trail junction potential as a meeting point and opportunity for wayfinding signage
- Ensure connections to David Foster Way (harbour pathway)

Traffic Calming

- Raised medians for traffic calming effects on west and east sides
- Landscaped median west of harbour and a treed median on east approach into downtown
- Delta Ocean Pointe Resort and future public space access road reduced to two narrow lanes
- Minimize left turn lane length at the intersection of Esquimalt and Harbour Roads
- Consideration of banner installation on Westside median to serve as traffic calming and gateway feature for Victoria West

Plaza Areas

- Plaza space on south west designed for harbour viewing, including seating, lighting and utilities for potential future programming
- Plaza space on north east designed for trail connection with bike racks and drinking fountain
- Staff will look at opportunities for programming, street entertainers etc over next few years

Landscaping

• Landscaping will be a mix of ornamental and native plantings and trees, with bedrock where appropriate.

Treatment of Retaining Walls

• Staff are exploring opportunities for treatments on the retaining walls of the pedestrian overpass on the west side to prevent graffiti and incorporate creative elements, while remaining within project budget.

Next steps:

The next open house is scheduled for July 7 and is intended to close the loop with the community in terms of what we heard and how it has influenced the project design.

This input and the City's guiding policy documents will guide the development of concept drawings to be developed by the landscape architects.

This will be presented to Council and the community and form the basis of an addendum for the request for proposals regarding the main construction contract. Packages of all the surveys and comments will be provided to Council for their review.



Appendix C



JOHNSON STREET BRIDGE REPLACEMENT PROJECT PUBLIC REALM AND LANDSCAPE DESIGN STRATEGY

PREPARED BY SHARP & DIAMOND LANDSCAPE ARCHITECTURE INC SEPTEMBER 27, 2012

JOHNSON STREET BRIDGE REPLACEMENT PROJECT PUBLIC REALM AND LANDSCAPE DESIGN STRATEGY

DOCUMENT PREPARED BY Sharp & Diamond Landscape Architecture Inc Ken Larsson, Mike Enns, and Brett Hitchins

PRODUCED FOR City of Victoria

PROJECT CONSULTANTS MMM Group (Prime Consultant and Project Manager) Wilkinson Eyre Architects (Bridge Design)

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- 2.2 Planting
- 2.3 Furnishing
- 2.4 Lighting
- 2.5 Walls
- 2.6 Sustainability

Executive Summary

This document summarizes decisions made with City Parks, Engineering, including feedback from the Public, and refinement of project scope to meet anticipated budgets, prior to proceeding to Detailed Design Drawings. This information will be provided to the proponents for inclusion in the overall budget for the project.

Preliminary designs including location, scale, general program and character have been discussed with City staff, and the public. Specifics including a refined program, details, materials, budgets, and potential long term phasing have also been addressed. As part of early works, we anticipate design refinements to coordinate road edges, sidewalks, crossings, boulevards, retaining wall materials and slope design.

This document references background analysis, objectives, design principles, preliminary design, and the budgeting for components of the public realm. It offers insight to the design rationale behind the landscape design: the scale of spaces; the connections between these spaces; how these spaces might be used; and what combinations of materials were considered. Consideration of, and integration with, adjacent development has been included.



EXISTING BRIDGE



NATURE AS INSPIRATION







CONCEPTS



CONTEMPORARY PLAZAS



DESIGN TEAM AND CITY WORKSHOPS



ATURAL LANDSCAPES











Section 1: Design

1.1 Site Plan >>

APPROXIMATE SITE AREA: 4.57 Acres

The Johnson Street Bridge Public Realm Plan and components draw inspiration from the local context, site character, and the modern forms of the proposed bridge. Key design influences include:

- · Diverse and vibrant urban character areas of the downtown and Victoria West
- The natural landscapes including the Garry Oak meadows of the Saanich Peninsula and bedrock character of Esquimalt / Victoria West
- · Meet existing topography and conditions while strengthening connections and accessibility





Downtown Visualization

View of Johnson Street Plaza - looking East.



Victoria West Visualization

View of West Bank approach from Esquimalt Road - looking East.



1.2 Downtown Plan Enlargement >>

APPROXIMATE SITE AREA: 1.23 ACRES

1. GALLOPING GOOSE TRAIL HEAD AND PANDORA PLAZA

This junction of the regional multi-use path system pulls together urban precincts within the city's historic fabric to provide a symbolic trail head and flexibl civic gathering space and viewing plaza. **Scope:** 5M wide multi-use trail with enhanced pedestrian/cyclist crossing and left turn lane.

Boulevard street trees and shrub plantings, pedestrian lighting, railings, bollards, plaza areas as future gathering space

Future Work:

Opportunity for ground level uses in association with Janion Building/site (outdoor cafe, seating, small events, etc.).

Opportunity to interpretive the story of Janion Hotel, Swans roundhouse, E&N Rail, Canoe Club, underground stream etc. together with regional trail network map. Explore connection to David Foster Way (Harbour Pathway).

2. CENTRAL GREEN (JOHNSON / PANDORA)

A central welcoming civic green presence to re-establish the bridge connection to the city Scope: Green lawn, seating widened sidewalk, boulevard plantings, ornamental tree grove, retain existing Oak Tree

Future Work: Public Art and Lighting.

3. WHARF STREET BOULEVARD AND JOHNSON STREET MEDIAN

Existing green space with sidewalk, existing trees, and historic marker to remain. Street median provides green gateway and traffic calming.

Scope: Repair and replace concrete sidewalk and turf as required to boulevard

Textured raised median with street trees

4. JOHNSON STREET PLAZA

Spectacular civic viewing plaza and urban green space terminus for southside pedestrian bridge path with grade accessible access to downtown.

Scope: Textured paving, seating, concrete retaining walls, plantings, retain existing Oak Trees, railings, bollards, pedestrian lighting, contemporary furnishings.

Future Work:

Informative signage program together with regional trail network map. Explore connection to David Foster Way (Harbour Pathway). Integration with Northern Junk property.



1.3 Victoria West Design Plan Enlargement >>

APPROXIMATE SITE AREA: 3.34 ACRES

1. ESQUIMALT / HARBOUR ROAD STREETSCAPE

Gateway to Victoria West. Boulevard, median improvements, and formalized intersection will slow down traffic speed, provide visual interest with safe access to Delta Hotel. **Scope:** Signalized intersection with improved sidewalk crossings, boulevard sidewalks.

2. GALLOPING GOOSE MULTI-USE TRAIL AND FLYOVER MULTI-USE BRIDGE

Junction of the regional multi-use E&N Rail Trail with spectacular views and grade access to Upper Harbour and south to Inner Harbour.

Scope: 5M wide multi-use trail, rock walls and boulder groupings, railings, pedestrian lighting, park tree plantings, custom meadow seed and bulb grass mix.

Future Work: Informative signage program with regional trail network map.

3. S-CURVE LANDS

Future City green space within the decommissioning of the existing S-Curve roadway. **Scope:** Regrade and seed this area to a 3:1 maximum grade.

Future park design by Parks & Recreation Department.

4. SOUTHSIDE VIEW PLAZA

Significant gathering space with spectacular views to Inner Harbour. Grade accessible pedestrian path follows original alignment of Delta Hotel access road.

Scope: Textured paving, seating, concrete retaining wall, tree plantings, landscape and pedestrian lighting, railings, stairs to bridge path



Section 2: Components of Public Realm

Key design influences that will provide the foundation for the selection of type and location of surfacing materials, site furnishings, plant materials and architectural elements include, but are not limited to:

- · The City Design Guidelines
- · Site Context including diverse and vibrant character areas of the Downtown and Victoria West
- · Local materials, availability, and inspiration of natural landscape
- · Modern contemporary design of Johnson Street Bridge
- · City Engineering, Operations, and Maintenance
- · Project budget and Design Principles

Final selection, design, and locations of materials is subject to revision by City Staff, Operations, and Maintenance.

EXAMPLES OF FINAL SURFACING SHOWN BELOW:





PLAZA AND VIEWING









2.1 Surfacing

Intent: Plazas: Plazas are the gathering spaces, places where people socialize, and nodes for pause and movement. As such, these spaces accommodate flexible programmatic uses, with emphasis on scale and simple materials palette.

Intent: Multi-Use Pathways: The surface treatment should be durable, functional, and respond to the needs of ALL users. Contrasting or textured materials delineate path, intersections and help direct traffic flow. Special attention will be made to safety markings, areas to pause and view, beginning and ends, with visual and functional edging materials

Intent: Sidewalks: Important components include: crosswalk texturing, design of curb drops, curb edge types, integration of utilities, grid proportions, and boulevard plantings and street trees should be considered.

1. PLAZAS

Concrete Unit Paving

- Size: 150 x 300 x 60mm; 150 x 150 x 60mm concrete unit paver on sand, granular base.
- · Colour: 60% natural, Charcol; 40% Sand Blend

Concrete Edge

- Finish: Smooth Trowel
- Width: 200-500mm

Stone Setts

- Size: 150 x 150 x 75mm
- · Finish: Cut flame finish granite on sand bed, granular base

2. MULTI-USE PATHWAY

Asphalt

5m wide asphalt with concrete edge

Cast-in-Place Concrete Edge

• Width varies: 200-500mm wide smooth trowel finish

3. SIDEWALKS

Cast-in-Place Concrete

· Sawcut pattern or tooled joint pattern. Final dimensions as per detailed design.

Median

- · Raised median with textured concrete (pattern to be confirmed with COV).
- Tree planting pit with rock cobble mulch

2.2 Planting >>

Intent: Plant materials and palette responds to unique site location, program and use, orientation, and climate while considering traffic and people movement, sitelines, safety, and maintenance.

- 1. Downtown Urban Areas And Plazas
- · Park Trees: River Birch, Katsure, Tupelo, Locust (7cm), and Shore Pine (3-5m ht.)
- Shrub Plantings: Wheatgrass, Sedge, Strawberry Bush, Californai Lilac, Snowberry, Fescue, Kinnikinick, Sedum
- · Retain existing large Oak Trees where possible

2. Streetscapes And Sidewalks

- Street/Median Trees: Fastigiate Maple and Beech (8cm cal.)
 - Structural soil to promote healthy and robust rooting systems
 - Boulevard Shrub: Boxwood, Spurge, Sedge, Bluegrass, Fescue

3. Victoria West (Natural Slopes)

- · Park Trees: Garry Oak, River Birch, Arbutus, Tupelo, Pln Oak, Locust, Shore Pine (3-5m ht.)
- · Meadow groupings and pockets of native bulbs with fescue grass mix

4. Rock Dry Stream

· 75-100mm angular rock mix with basalt boulders

















EE CLUSTERS AND GRASS

2.3 Furnishings

Intent: The furniture should be of modern industrial aesthetic, balancing contemporary materials with local designs, long term maintenance and operations. Placement and orientation determined by pedestrian nodes, views, sunlight, areas for interaction, and input from City staff. Seating can be incorporated with lighting applications to welcome night-time use.

Incorporate seating materials into overall design aesthetic (materials, edges, steps, walls). Wide seating surfacing allows for multiple uses (group seating, lying, reading etc.) Consider moveable seating for outdoor spaces (cafe, urban parks) inassocation with future building edges.

Railings: Consider ramp slope less than 5% to avoid excessive ramps and railings in landscape. Use in high traffic areas, intersections, and adjacent to steep grade changes or hazard. Incorporate bridge forms and materials and incorporate signage where applicable to expand on site heritage and existing views

Seating

- Freestanding: NU Wood Bench 2.5m length by Landscape Forms complete with backrest.
- · Bench tops: IPE wood slats by Francis Andrew.

Bollards

· Stainless steel 125mm diameter x 750mm height to direct pedestrian / bike movement.

Drinking Fountain

· Stainless steel with dog bowl or approved alternative. Supplier to be confirmed.

Railings

Galvanized stanchions with stainless steel rail and cable.

Bike Racks

· Ring by Landscape Forms, with stainless steel finish.

2.4 Lighting

Intent: Lighting provides opportunity for public interaction, symbolic reference, and to accentuate built form and plantings. Lighting should reflect sustainability, energy efficiency, and complement the architectural bridge lighting.

Pedestrian Lighting

SETI Pole and LED Luminaire by Beacon along multi-use pathway and plazas

Recessed Wall Lightings

Step Light 7"round by Architectural Area Lighting to light stairs





VOOD ON















2.5 Walls >>

Intent: Wall types and forms are inspired by historic remnant stone walls throughout the downtown, inner harbour and old town, and of the dramatic and symbolic natural rock outcroppings throughout the peninsula.

Mechanically stabilized walls will be required as part of civil roadworks and bridge construction package. However, smaller scale landscape walls will stablize slope, shape and define entry, provide texture and interest to roadscape, ramps, and sitting edges.

A higher level of detailing and finish are proposed in the more urban downtown setting with possible integration with lighting public art, signage, and furnishing elements. Victoria West side is envisioned to be rockstack design. Note: final wall type, design, and locations to be coordinated with project budget, and City approvals.

Stone Faced Retaining Wall

Horizontally stacked rough cut basalt ledgestone facing with 250mm precast concrete cap

Low Concrete Seat Walls

Architectural finish, no chamfer, 450mm - 600mm ht x 500mm wide

Rock Stack And Boulder Outcroppings

 Stacked local large basalt/sandstone shape boulders in groupings to grade slope, provide interest, and incorporate natural plantings



INSPIRATION: LOCAL ROCK OUTCROPS

STACKED ROCK INTEGRATED WITH PLANTIN

2.6 Sustainability >

Intent: The Johnson Street Bridge Public Realm promotes sustainable initiatives through celebrating pedestrian and energy efficient multi-use pathways, increasing surface permeability, water efficient landscapes, and maximizing habitat.

Permeability And Stormwater

· Use permeable surfaces where possible to maximize infiltration and reduce runoff

Urban Heat Island

· Treed canopy for shade and reduce urban heat island and improve uban forest

Water Efficiency

 Water wise and locally adapted plant species and improve biodiversity and regenerative landscapes

Energy Efficiency

- Seamless and intuitive pedstrian and multi-use pathways encourage reducing reliance on cars
- · Encourage use of local products and distributors within 500km radius
- Efficient lighting (LED)





NATURAL LOCALLY ADAPTED PLANTINGS

JOHNSON STREET BRIDGE REPLACEMENT PROJECT PUBLIC REALM AND LANDSCAPE DESIGN STRATEGY

PRODUCED BY SHARP & DIAMOND LANDSCAPE ARCHITECTURE INC



Johnson Street Bridge Replacement Project

Appendix E

Cyclist Connections



www.JohnsonStreetBridge.com

CTORIA



NORTH EAST PLAZA - APPENDIX F



WEST PLAZA - APPENDIX G



SOUTH EAST PLAZA LOOKING EAST -- APPENDIX H



SOUTH EAST PLAZA LOOKING WEST - APPENDIX I