



I ♥ Bowness: 8 Community Planning Ideas

EVDP 644 (B01) FINAL STUDIO REPORT 2017
Master of Planning
Faculty of Environmental Design

Foreword

EVDP 644 (B01) FINAL STUDIO REPORT 2017

Advanced Professional Studio Project

**Master of Planning
Faculty of Environmental Design
University of Calgary**

Instructor
Dr. Mary-Ellen Tyler



The Faculty of Environmental Design's has an ongoing partnership with the Federation of Calgary Communities to enable us to work with communities in the final studio course of the Master of Planning Degree Program. This year, the Bowness Community Association was selected, based on their application, as the community partner for one of the two sections of EVDP 644; the final planning studio before graduation in the Master of Planning. The purpose of this final studio is to give Master of Planning students an opportunity to apply their knowledge and skills in a professional planning situation at the community level. The emphasis is on project management, community engagement, developing relevant and pragmatic project ideas and solutions, and graphic communication.

This report presents the results of "I♥Bowness: 8 Community Project Ideas" represented by two final poster illustrations for each project and a one page project description including student bios. The evolution of these project ideas benefited from a number of meetings and feedback from the Bowness Community Association's Planning and Development Committee members and from the Community Workshop, March 11, 2017. The final project results were presented to Planning and Development Committee representatives on April 7, 2017 and the final posters in this report were displayed at a Community Open House in the Bowness Community Centre on April 9, 2017.

Bowness is a vital community with a small town feel and history that is home to a diverse population of Bownesians who are actively committed to their community's future and well being of all of its residents. The number of "I ♥ Bowness" bumper stickers, signs, and banners prominently found all over the community impressed us when we started our initial field work, and quickly became adopted as the studio theme. The planning students also started to love Bowness and each project in this report demonstrates ways they hope the positive identify and characteristics of Bowness can be enhanced in the future to reinforce community values.

On behalf of the planning students involved in the Bowness studio, the Master of Planning Program, and the Faculty of Environmental Design, I would sincerely like to thank the Calgary Federation of Communities, the Bowness Community Association, members of the Bowness Community Association Planning and Development Committee, for their support and assistance. Ongoing partnerships and sponsorships in support of professional education make an important contribution to the success of our graduates and their future contributions to creating healthy, vital, and sustainable communities.

Mary-Ellen Tyler, PhD CSLA (Hon)
Instructor, EVDP 644 (B01) 2017

Table of Contents

Studio Brief	03
Drainage Management in the West Mall Area <i>Madison Smith, Hassaan Zuberi, Nida Hassan</i>	05
Expanding Local Business in Bowness <i>Oghenetega 'Tega' Odogu</i>	09
Housing Options for Lifestyle Choices <i>Layne French</i>	11
Pop-Up Placemaking <i>Beth Greene, Rachel Greene</i>	13
Pedestrian Experience Strategy <i>Melissa Pope</i>	16
Bridging the Divide: Improving Connectivity by Improving the Railroad Lands <i>Camila Anne Ramos-Strankman</i>	18
Bowness Green Connexions <i>Adetoun Osuntogun, Crystal Jackson, Michael Vena</i>	20
Bowness South Connections <i>Beckett Frisch</i>	23

To enable this report to be better used as a working document by the Bowness Community Association, it has been printed on one side of the page, to allow notes and record of discussion summaries to be made for each project.

Acknowledgements

Sydney Empson, Community Hub Coordinator, Bowness Community Association, and Paul Sipos, Chair of the Bowness Community Association Planning and Development Community served as the primary studio communication contacts. Ana Hidalgo, PhD candidate in the Faculty of Environmental Design, served as studio Teaching Assistant and provided project graphics and final report assistance.

Studio Brief

The following Brief was provided to students at the beginning of the studio and served as the basis for the identification and development of their 8 projects.

Bowness is a historical community with a streetcar line that used to run from downtown Calgary to Bowness Park when it was literally out in the country. Both Bowness and Inglewood share some similarities in so far as both were independent towns prior to being annexed by the City of Calgary. Both Inglewood and Bowness are physically adjacent to the Bow River and connected by bridges, both have with older housing stock, a history of flooding, and a large railway right of way footprint in their physical form – a form largely established prior to World War II. Both Inglewood and Bowness have had lower income community profiles however redevelopment due to Inglewood’s downtown location has changed its profile while Bowness, due to its more urban fringe location has been slower to redevelop. However, circumstances are changing and the Bowness Community Association Planning and Development Committee is of the opinion that Bowness is currently on the cusp of a major transition due to redevelopment opportunities and pressures.

Based on a meeting with the Bowness Community Associations Planning and Redevelopment Community on November 30, 2016; the following information was provided from the Committee members based on their knowledge and experience:

- The existing Bowness ARP is old with the last changes in the 1990s.
- The BCA existed until the time period 2004 – 2010 when the City placed it into receivership. It was during that time that the Society of Bowness Residents looked after Planning and Development issues. In 2011, a new Community Association formed with new bylaws and a new board.
- The flood of June 2013 had a major impact on Bowness and revised flood mapping has not been completed, nor is there a plan for flood prevention and mitigation specific to Bowness been completed.
- The demographics of the community includes a high proportion of seniors, First Nations peoples, and a high percentage of low income households.
- Bowness has a number of transportation issues including bus routes that don’t serve seniors, need for new bicycle paths and existing paths that are disconnected or don’t go anywhere. The 85th Street Bridge on the West and the Shouldice Bridge on the East have become “bottlenecks” to movement into and out of the community.
- There is a high percentage of low income rental housing which is in need of upgrading and has other related issues but affordable housing is needed.
- Recently there has been active development around the geographic boundaries of Bowness including south side residential development on Sarcee and Paskapoo Slopes and new commercial corridor development along Trans Canada Hwy (16th Ave) at the COP intersections and



Sarcee intersections. It is not yet clear how this boundary development will affect exits and entrances to Bowness.

- There is a concern with the need for local employment, small business development, and economic diversity. Specifically, it is not clear how much land is or could be available for development or re-development within the next 5 years and what options there might be for an appropriate mix of potential residential, commercial, and other uses there might be. Because of the history of Bowness there are apparently legal conditions and covenants on land that require petitioning the Province of Alberta to change use – but unclear how extensive and what properties are involved.
- Bowness's physical Community form extends “Bridge to Bridge” but is fragmented in three distinct and not well connected parts due in part to the CP Rail line right of way corridor and river valley topography:
 - 1) West Bowness (anchored by the ‘mall’, Bowness Park, and 85th St bridge);
 - 2) East Bowness (main street with angle parking, and Shouldice Bridge);
 - 3) the higher elevation South Ridge along the Trans Canada Hwy (16th Ave).

Based on a discussion of this information at the November 30, 2016 meeting with the Bowness Community Association Planning and Development Committee, a number of possible studio activities were identified that would be of interest to the Committee which are listed as follows which could be addressed individually or integrated into a larger conceptual design and land use planning vision:

- Community mapping or spatial inventory of who and what is where and the spatial patterns this creates for development or re-development opportunities and constraints.
- What are the possibilities and options for creating and increasing a more spatially connected and physically integrated “Bridge to Bridge” urban form for Bowness?
- What are the possibilities and options for creating a more coherent, multi-model, integrated transportation and circulation system for Bowness which addresses, exit and entrance points, traffic patterns and flows, pedestrian and bicycle pathways and seniors special needs.
- What opportunities are there for addressing social planning needs – such as affordable housing, employment opportunities, health care, child care, social service needs and access, etc in the context of development and redevelopment visioning?
- Of special interest to the Planning and Development Committee at the November 30 meeting and discussion was developing a ‘vision’ for a ‘Community Hub’ in the West part of Bowness which would be focused on the area where the current ‘mall’ is located.

Addressing one or more of these activities will require exploring and identifying information related to the following areas:

- The Bow River: geomorphology, hydrology, riparian zones, water table and flood history.

- Infrastructure: sewer, water, storm water system capacity and life cycle stage and mains locations. Gas, electricity, and telecommunications distribution systems, networks, and rights of ways locations.
- Community Social Profile: demographics, housing needs and affordability, community services, schools, health care, etc.
- Community Economic Profile: land prices, property taxes, land use and zoning, household incomes, employment and labour force.
- Driving Forces: Bowness is in transition from its historical form and identity. What are the current and future internal community and external needs, opportunities, social, economic, environmental, and/or political and cultural forces that will drive change?
- Strategic Analysis: Strengths, Weaknesses, Opportunities, Threats (SWOT). What do community decision makers, planners and urban designers, need to know to prioritize development and redevelopment actions and options?



EVDP 644 Team photo at Final Community Open House, Bowness Community Association, April 10th, 2017.

Drainage Management in the West Mall Area

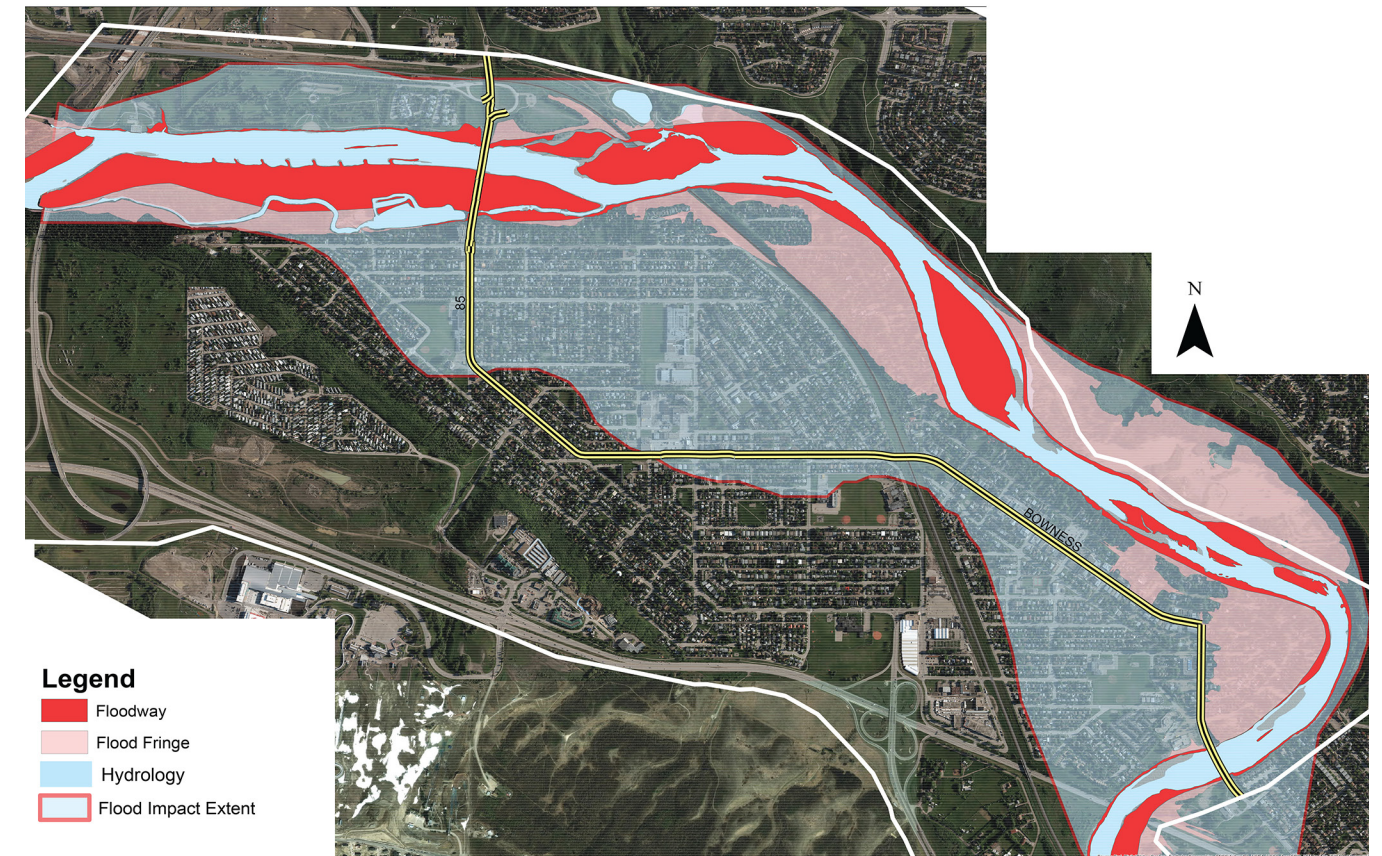
Madison Smith, Hassaan Zuberi, Nida Hassan

Bowness is located in the historical floodplain of the Bow River, and has been subject to at least three major floods in the last decade. Flooding involves the entire designated flood fringe area but also has flood impacts beyond the fringe area because of existing topographic and landscape drainage pathways and high groundwater. As a result, more than half of the spatial area of the Bowness community, including Bowness Road is in the flood impact zone.

Therefore, the purpose of this project is to review the drainage management possibilities available in low lying areas such as the West hub area of Bowness to assist in reducing flood impact. While flooding in the Bow River system is likely to continue given the right combination of precipitation and snow melt conditions, areas of Bowness can be better prepared to manage water within the flood impact zone through low impact development and green infrastructure techniques at the landscape level.

The following illustrations demonstrate mitigation options for West Bowness, and the integration of social, recreational and public space in mitigation design. Utilizing green space and landscape for mitigation functions can produce new community space that absorbs and retains water. Using bio-retention techniques, specific tree species, bio swales, rain gardens, permeable pavement, green streets/alleys, and planter boxes can all be employed in drainage mitigation in the flood impact zone.

Flood Impact Map



Madison Smith

Born in Vancouver, BC. Background in Environmental Sciences from Saint Mary's University in Halifax, has a passion for establishing long-range planning employing sustainable and resilient green infrastructure methods. Interests also lie in affordable housing initiatives. Currently works for the Calgary Homeless Foundation utilizing social planning skills. Contact Madison at madison.a.smith@hotmail.com.

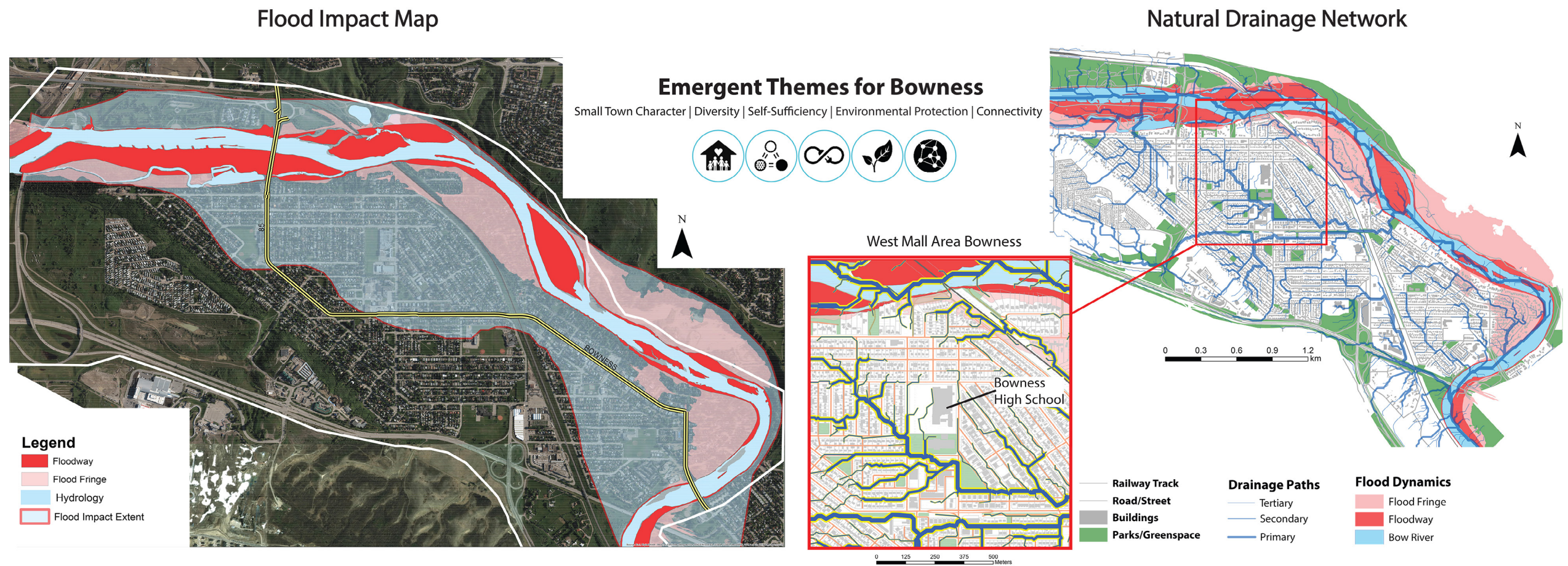
Hassaan Zuberi

Born in Pakistan and raised in Saudi Arabia. Hassaan has an educational background in Geographic Information Systems (GIS) and Geomatics Engineering. He has an interest in the long-range implications of community scale and regional planning initiatives. He hopes to work where he can combine his GIS and planning skills. Contact Hassaan at mhazuberi@gmail.com

Nida Hassan

Born in Abu Dhabi, UAE. Background in Architecture, with a minor in photography and illustration. She is passionate about Land Use Planning, how the built form can shape or affect communities, and green solutions and technologies to improve the quality of living and minimizing environmental impacts. Contact Nida at nidahassantariq@gmail.com.

Drainage Management in The West Mall Area



Precedents

Winnipeg, Canada



Manitoba has experienced several major floods. The process looked at identifying existing vulnerabilities that could lead to flood damage, identifying and assessing potential options to reduce flood risk and making recommendations.



Nashville, United States



The goal is to build an environment that remains a functioning part of an ecosystem. This is an innovative approach to urban stormwater management that strategically integrates stormwater controls throughout the urban landscape and does not rely solely on conventional structural techniques.

Drainage Management Techniques - Bio-retention

Bio-retention Species



Height: 25 m

Balsam Poplar

Fast growing, flood tolerant. Colonizes newly formed point bars, produces alluvial deposits large streams and rivers. Best on sites with coarse sandy, well drained soils. Extensive roots, spreads by suckering. Occurs throughout Alberta at low to medium elevations.



Height: 7 to 12 m

Manitoba Maple Tree

Commonly used in shelterbelt plantings. Hardy, drought and flood tolerant. Considered native in eastern Alberta as far north as the Battle River where it occurs along coulees and river valleys. It also has wide soil adaptability.



Height: 9 to 15m

Willow Tree

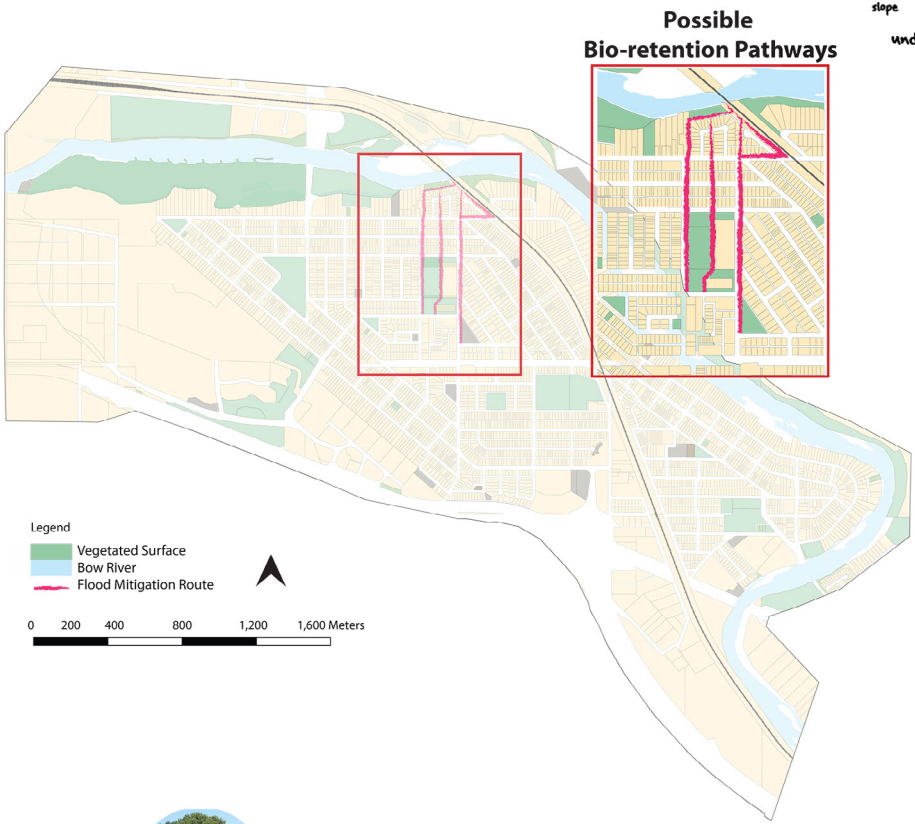
Fast growing, flood tolerant. Willows are a diverse group of fast growing riparian shrubs that are adapted to frequently flooded conditions. Excellent bank stabilizers particularly in combination with smaller streams. They can be propagated from stem cuttings. Common throughout Alberta.



Height: 1 to 3 m

Red-Osier Dogwood

Fast growing, grows well on stream banks and adjacent floodplains. Can grow in clay sand and soil. Valuable for re-vegetation of degraded sites since it is readily established by direct seeding, through transplanting rooted cuttings, or nursery grown seedlings. Stabilizes deteriorated banks. Tolerates full sun if it has sufficient moisture. Widespread in all regions.



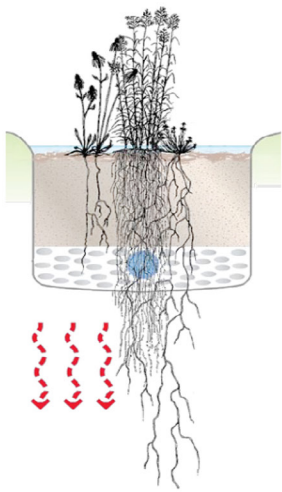
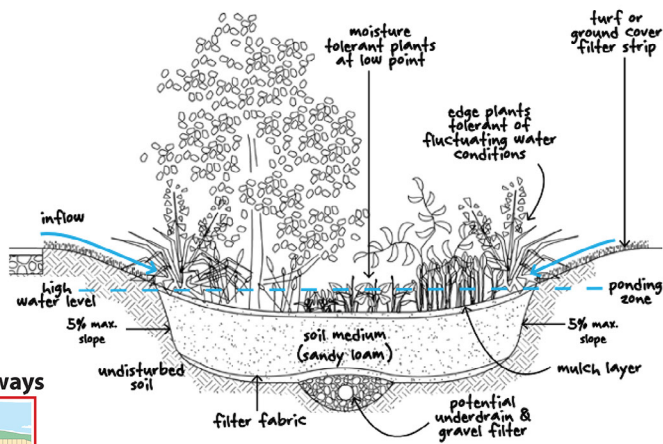


Height: 25 m

Cottonwood Tree

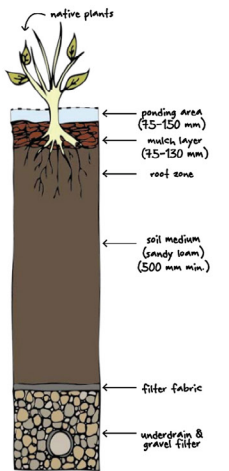
Fast growing, restricted to southern river valleys in Alberta and the grassland natural region, also flood tolerant. Related to balsam poplars, excellent bank stabilizers and provide important fish, wildlife shelters and habitat

Bio-retention System Basics



Bio-swale System

1. The bio-swale reduces runoff, by letting stormwater soak slowly into the ground.
2. Harmful substances like salt, minerals, metals, and oils, from runoff percolate into the ground.
3. The extensive root systems of native plants then filter and remove pollutants, slowing the flow of water before it enters water bodies.

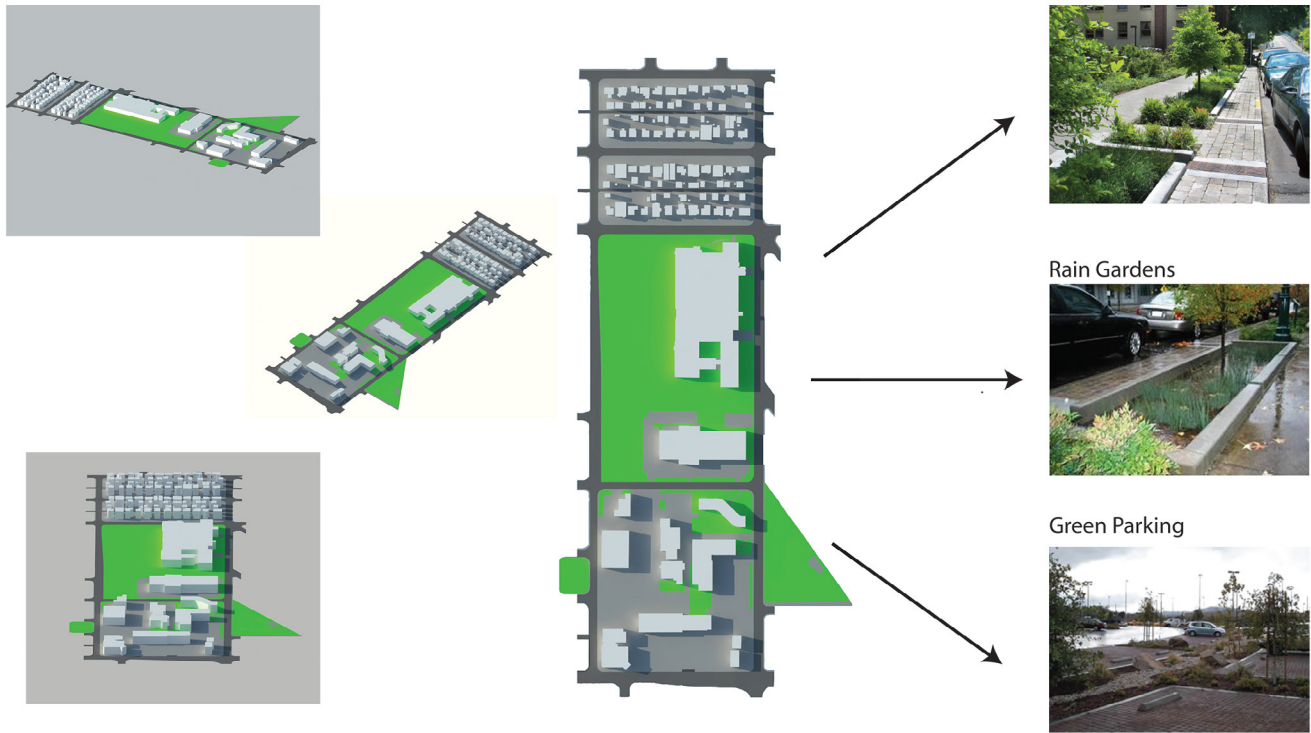


Rain Garden Benefits

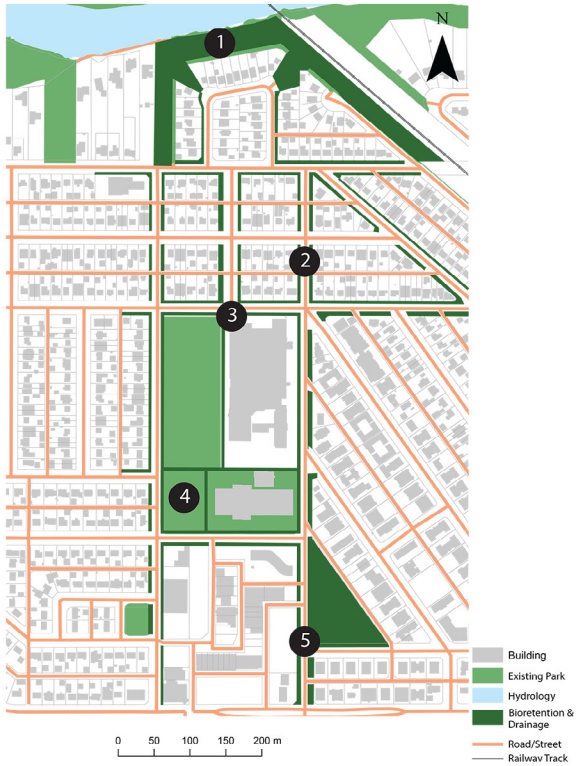
A bio-retention basin is a shallow, planted depression with a mechanical underdrain, and usually refers to large-scale applications. Surface water is sometimes visible in a bio-retention basin as it retains water for longer periods of time, whereas the water entering a rain garden tends to infiltrate more rapidly. Rain Garden refers to a bio-retention area that is typically, shallower and smaller in size than that of a bio-retention basin. Many general images and diagrams of rain gardens often do not depict an underdrain; however, an underdrain is beneficial and often necessary to accommodate excess runoff due to compact clay soils.

Drainage Management Design in The West Mall Area

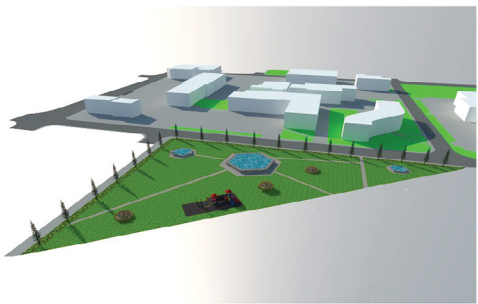
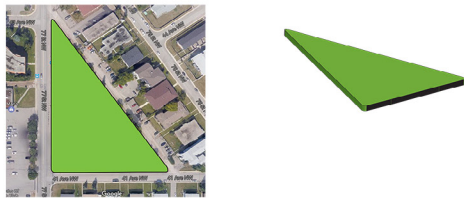
The West Mall Area - Possibilities



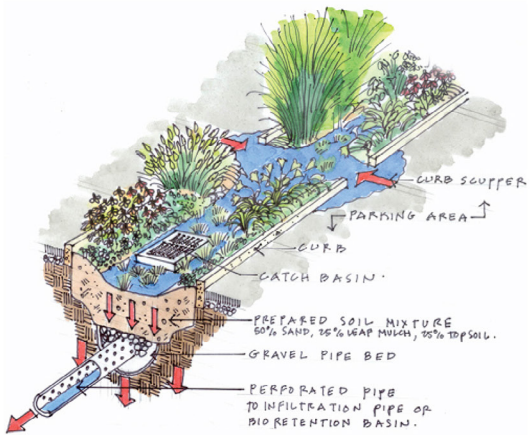
Potential Bioretention & Drainage



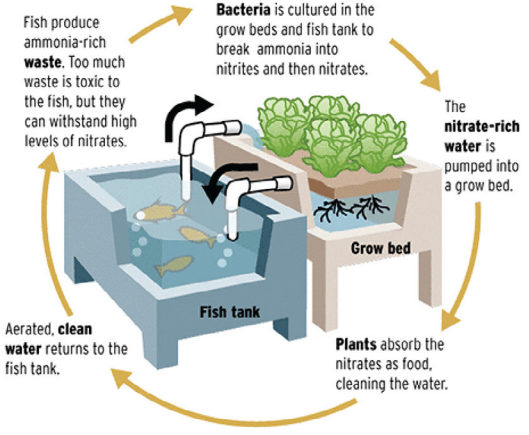
Future Skatepark Adaptation



5 Curb-Side Rain Garden



4 Aquaponics



Expanding Local Business in Bowness

Oghenetega Odogu

Access to local services and employment is an important component of a complete community. Expanding opportunities for new local businesses provide additional retail services as well as employment in Bowness. The types of new businesses opportunities identified through previous community studies and workshops include; banking and finance, beauty and fashion, creative arts and culture, grocery and natural foods, health and wellness, home furnishings and electronics, pet services, restaurants and nightlife, simple pleasures, entertainment, light manufacturing.

The availability of a variety of additional services will enhance the attractiveness of Bowness as a community where residents can live, work, shop and play. With relatively affordable housing rental and ownership in a Calgary context, and amenities such as access to Bowness Park and the Bow River, Bowness is a desirable community in which to live and do business. Bowness currently has four commercial areas with the spatial potential to accommodate a mix of new business and built forms; Main Street, Sunnyside Greenhouse Area, West Bowness Center area, and Angels Drive-In Area near Bowness Park.

The following illustrations demonstrate how the space requirements of different small business mixes could be integrated into these existing four commercial areas.

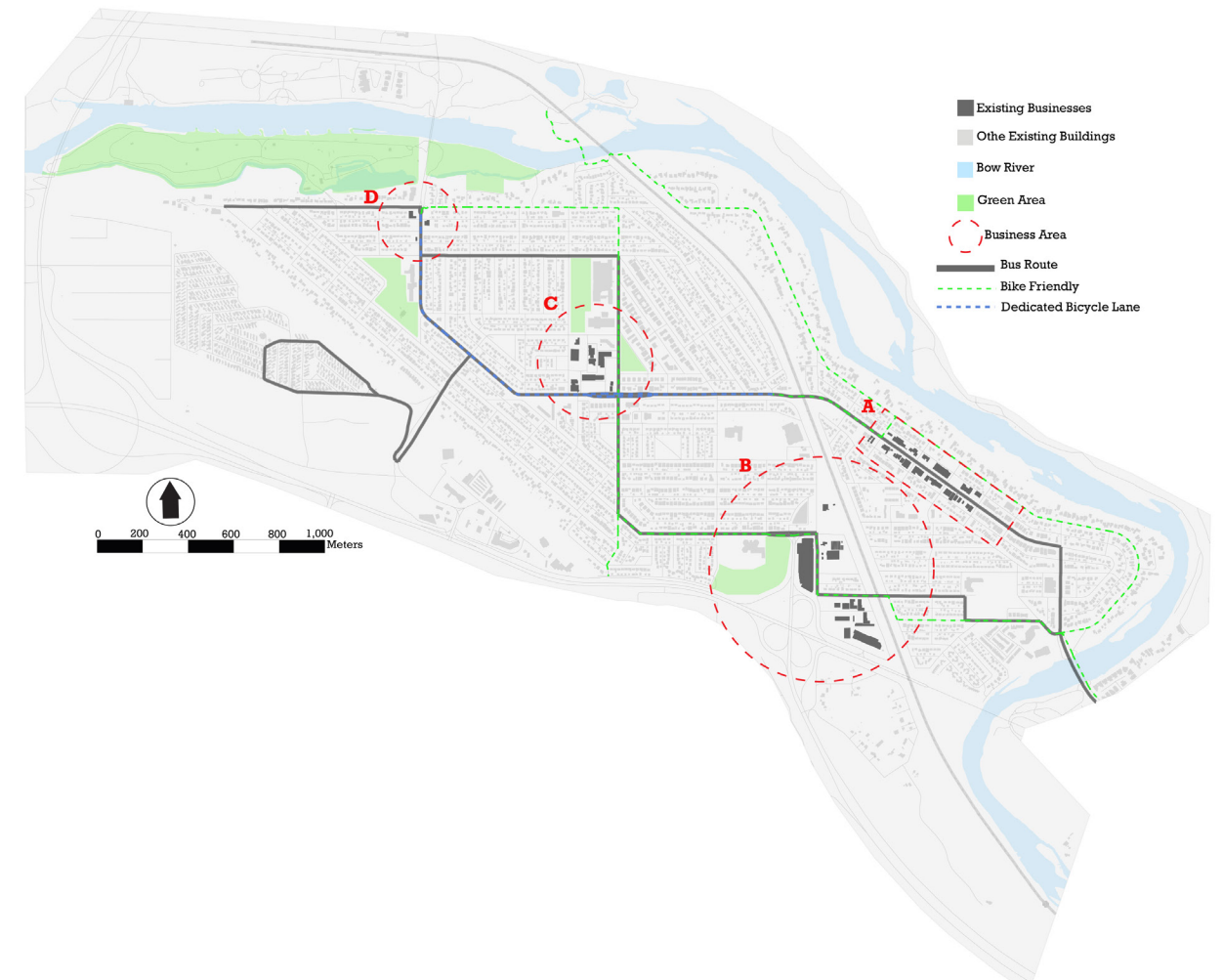
Bowness has the potential to accommodate new retail, commercial, service and light manufacturing business within four existing business areas.

A - Main Street

B - Sunnyside Greenhouse Area

C - Bowness Center

D - Angels Drive-In Area



Oghenetega Odogu

I have an undergraduate degree in Geography and Environmental Management. My professional planning interests include working with both government and non-government organizations in the areas of housing affordability, unemployment, food & water security, and healthcare. I would love to work with the United Nations tackling these issues in the developing world.

EXPANDING LOCAL BUSINESS IN BOWNESS

A - Main Street



Main Street is an area of interest in Bowness. It has over 60 existing businesses including banking auto services, health & wellness, restaurants and community services.

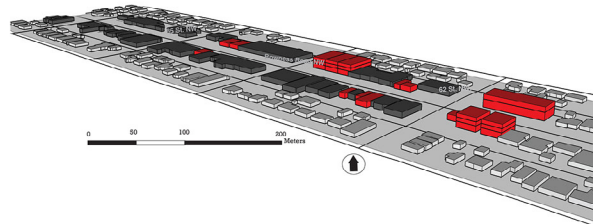
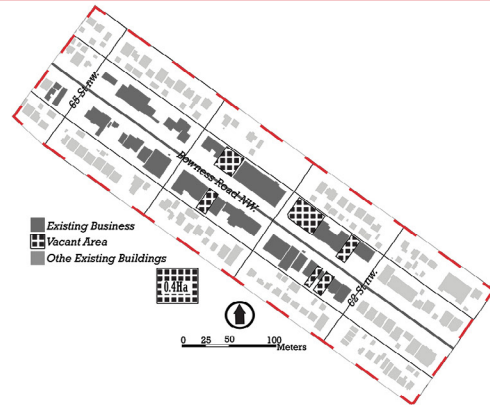
New Business Mix



0.5Ha

- An extension of the Main Street eastwards towards Mary's Corner Store will be required to develop this new mix of businesses.
- 103 Job opportunities will be created from developing this mix of retail and office use.

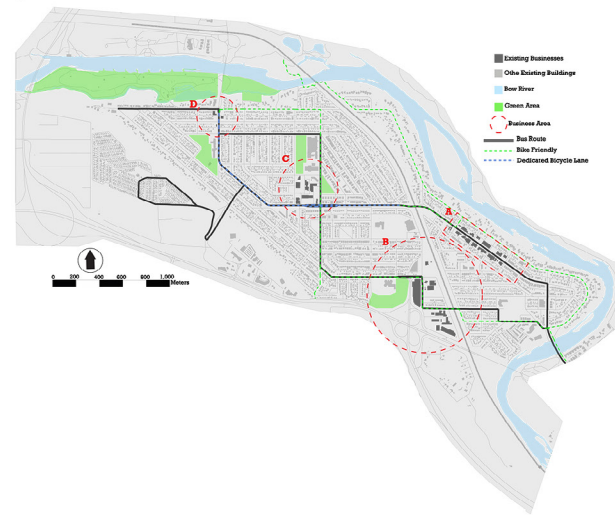
■ New Businesses
■ Existing Businesses
■ Other Existing Buildings



Project Introduction

Bowness has the potential to accommodate new retail, commercial, service and light manufacturing business within four existing business areas.

- A - Main Street
- B - Sunnyside Greenhouse Area
- C - Bowness Center
- D - Angels Drive-In Area



Project Outcome

Services: Increase the number of services available within Bowness. Making services easily accessible to residents, especially to the elderly population.

Redevelopment: Develop vacant and underutilized land in and around already existing commercial areas. In total 2.6 Ha of land will be developed.

Employment: Provide employment opportunity for residents through public private partnership. 780 jobs would be generated from developing 2.6 Ha of land.

Live/Work/Play: Incorporate Live/Work units into commercial areas to allow residents to live, work and play within Bowness. This will foster the small town feel.

Community Spirit: Bownesians providing services to fellow residents will foster the community spirit which already exists in Bowness.

C - Bowness Center



Bowness Mall is a commercial and residential site. It is the site of various local business such as the Bownesian Grocer and Bowness Pub. It's central location will make it easily accessible to more residents.

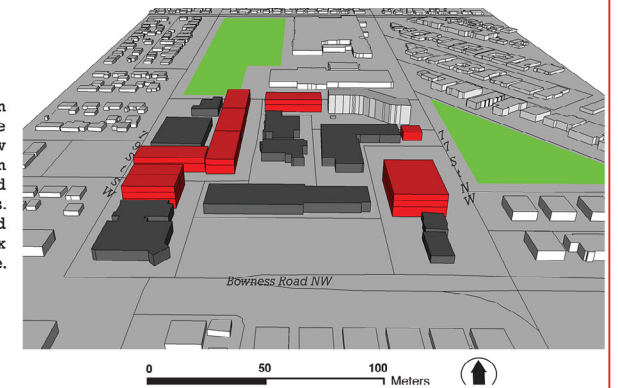
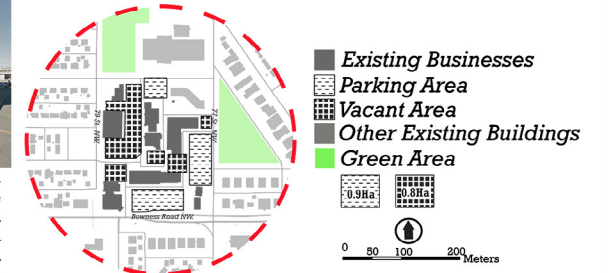
New Business Mix



0.7Ha

- Current vacant space in Bowness Center is adequate for developing this new business mix. Businesses in this area will be centered around health and wellness.
- 142 jobs will be created from developing this mix of retail and office use.

■ New Businesses
■ Existing Businesses
■ Other Existing Buildings
■ Green Area

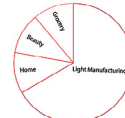


B - Sunnyside Greenhouse Area



This area is a commercial and industrial area. It is located in proximity to Sarcee interchange and will be easily accessible to future development south of Bowness.

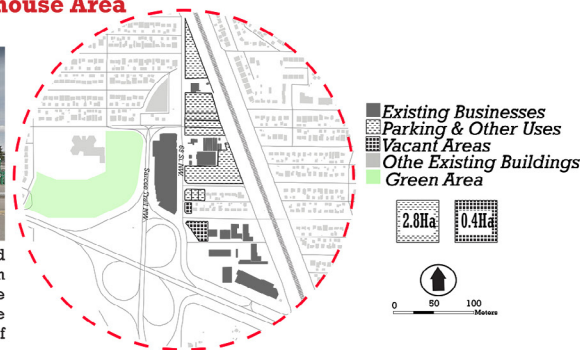
New Business Mix



1.3Ha

- Locating this new business mix requires more space than is available in this area. The green space adjacent to the Our Lady of Assumption High School provides an alternative location.
- 523 jobs will be created from developing this mix of retail and light industrial use.

■ New Businesses
■ Existing Businesses
■ Other Existing Buildings
■ Green Area



Precedents

Mardaloop, Calgary.



Main Street Bowness can be developed to include residences above commercial. The street scape can be designed to include street trees, green areas, wider side walks and sidewalk seats.

Garrison Village Center, Chilliwack



Bowness Center can include live/work row houses which will maximize the use of space within the area.

Glenmore Landing Shopping Center, Calgary.



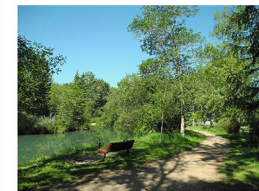
Sunnyside Greenhouse area can be developed with parking areas more centralized. Green spaces can be used to separate parking areas from sidewalks.

Mardaloop, Calgary.



Angels Drive-In area can be developed with buildings facing the street, integrating wider sidewalks, green spaces and proper signage.

D - Angels Drive-In Area



This area is located close to Bowness park which attracts a lot of visitors year round. It is also located close to 85 bridge making it easily accessible to people driving in and out of Bowness.

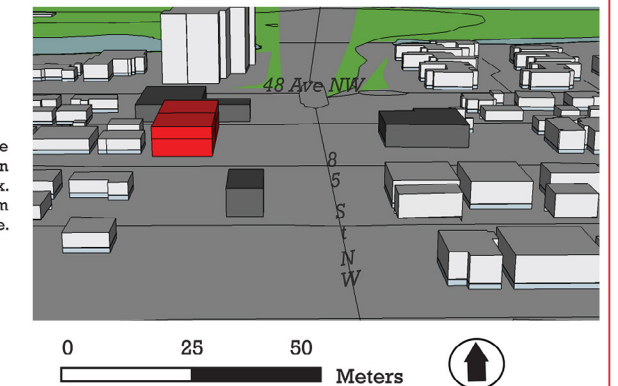
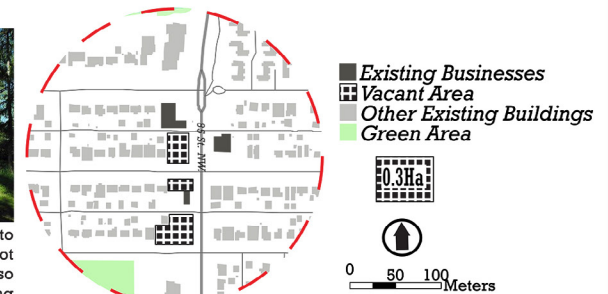
New Business Mix



0.06Ha

- There is sufficient space within this area for the location of this new business mix.
- 11 jobs will be created from developing this mix of retail use.

■ New Businesses
■ Existing Businesses
■ Other Existing Buildings
■ Green Area









Expanding Local
Business in Bowness
Odugu
1/1







Housing Options for Lifestyle Choices

Layne French

The objective of this project is to identify and understand the specific lifestyle factors affecting the choice of housing needs of individuals and families. Two matrices were used for a two-step process of self-evaluation of housing needs and housing form alternatives and demonstrating the results through visualizing of the resulting housing choice. The self-evaluation findings from the first step then enable the user to apply their own weighting and housing preference choices into the housing typology matrix. When the second matrix is complete a value is generated which corresponds to a choice of housing typologies the user can use to cross shop and compare when deciding on their housing options.

The benefits of the project are twofold; individuals or families can examine their housing needs independently; and community associations can use the two -step matrix process to evaluate if there are adequate housing options to meet the needs of a diverse population. A variety of demographic age groups and income groups live in and contribute to the community identity and dynamics of Bowness and it is important to recognize the importance of this diversity in housing choices and enable a mix of housing to meet a range of lifestyle needs.

	Weighted Average	Self Total	Strong Impact on Lifestyle	Moderate Impact on Lifestyle	No Impact Concern for Lifestyle	Minor Concern for Lifestyle	No Concern on Lifestyle
	5	10	5	4	3	2	1
	20	40	5	4	3	2	1
	25	100	5	4	3	2	1
	30	150	5	4	3	2	1
	15	45	5	4	3	2	1
	5	10	5	4	3	2	1

	Weighted Average	Self Total	Condo Apartment	Laneway Housing	Stacked Townhouse	Normal Townhouse	Conventional House
	5	15	5	4	3	1	1
	20	100	5	1	5	1	1
	25	75	5	5	3	2	1
	30	150	5	4	5	1	1
	15	75	5	1	5	2	1
	5	15	1	5	3	2	5
	4.30						

Layne French

Layne holds a Bachelor of Arts in Urban Studies from the University of Calgary. Prior to beginning his Master of Planning Degree in EVDS, he worked in development financing and housing. Specifically, Layne has successfully managed and created over \$30 million dollars in housing development in British Columbia. After graduation, Layne intends to continue to work in the housing sector and has a special interest in affordable housing financing.

Housing Options for Lifestyle Choices

Legend



Mobility

Refers to ability to interact with the home. Addresses issues such as: stairs, doorway widths, flooring choices, switches and controls heights and placement.



Community Involvement

Refers to the ability to remain connected with the community. Addresses issues such as: social seclusion, social isolation, ability to interact with friends



Affordability

Refers to the ability to adequately fund accommodations. Addresses issues such as: spending over 30% of income, adequate fund reserves for emergency repairs or maintenance, adequate funds to cover utility costs and increases.



Amenities

Refers to the ability to be near used services, retailers. Addresses issues such as: connectivity to social venues and spaces, access to daily services such as food, medical and retail services.



Walkability

Refers to the ability to access the property and adjacent community as a pedestrian. Addresses issues such as: lack of pedestrian infrastructure, unmaintained pedestrian infrastructure (non-cleared pathways, uneven curbs and walks) and proximity to places to walk to.



Greenspace

Refers to the ability to access green and open spaces in the urban environment. Addresses issues such as: ability to access green spaces for recreational/physical opportunities, access to opens pace for mental/physical health reasons

Case Study One



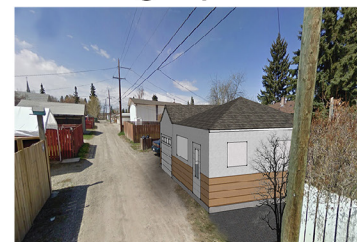
Name:
Cindy

Occupation:
hospital administrative assistant

Family Situation:
divorced, two adult children

Hobbies:
gardening, reading, riding her bicycle

Housing Options



Current Site



Housing Typology Matrix

	Weighted Average	Self Total	Condo Apartment	Lane-way Housing	Stacked Townhouse	Normal Townhouse	Conventional House
	0	0	5	4	3	1	1
	10	10	5	1	5	1	1
	25	125	5	5	3	2	1
	25	100	5	4	5	1	1
	30	30	5	1	5	2	1
	10	50	1	5	3	2	5

Plan View

3.15



Case Study Two



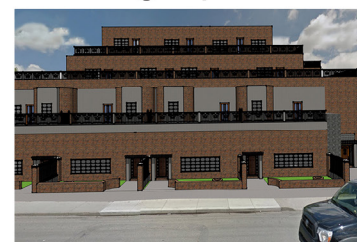
Name:
Kelsey and Dillon

Occupation:
auto technician, retail manager

Family Situation:
newly married, no children

Hobbies:
shopping, eating at pubs, live music, hiking

Housing Options



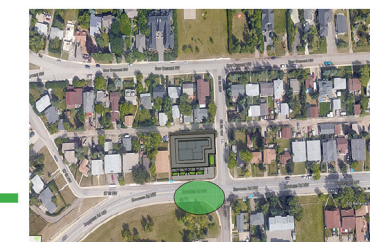
Current Site



	Weighted Average	Self Total	Condo Apartment	Lane-way Housing	Stacked Townhouse	Normal Townhouse	Conventional House
	5	15	5	4	3	1	1
	20	100	5	1	5	1	1
	25	75	5	5	3	2	1
	30	150	5	4	5	1	1
	15	75	5	1	5	2	1
	5	15	1	5	3	2	5

Plan View

4.30



Beth Greene, Rachel Greene

At our community workshop in March, many residents expressed dissatisfaction with the current state of the West Mall as lacking social or public space. One resident in our workshop suggested a temporary design solution, as it could take a number of years before redevelopment of the property was possible. We loved this idea! As a result, we began to focus our project on designing temporary social spaces that could act as precedent for future 'Pop-up Placemaking' projects in other underutilized locations along Bowness Road.

As the following illustrations show, we used inspiration from existing street features in Bowness, such as the ‘planter bus stop’ at Bowest Motors, the old streetcar on Main Street, and the Hextall Bridge Boardwalk to develop our ideas. The pop up social space installations shown in the following illustrations are intended to provide new opportunities for Bownesians’ to enjoy being outside and participate in neighbourhood social interactions. These temporary installations are relatively low cost and do not require more than average skills to build using reclaimed materials. Through community partnerships, the design and construction of Pop up projects can quickly create places for the use and enjoyment of all Bownesians.



Beth Greene

Beth received her B.A in Environmental Design (Landscape and Urbanism) from the University of Manitoba. Her passion for creative design solutions and community development has influenced much of her work throughout her two degrees. Her professional planning interests include parks and open spaces, water conservation, and urban design. She is currently interested in opportunities to be involved in community building through grassroots initiatives such as: food production, and community place making.

Rachel Greene

Rachel received her B.A. in geography from the University of British Columbia with a focus on environment and sustainability. She decided to pursue a professional planning degree after a study abroad experience in France. Her professional planning interests include parks, recreation and open space planning, as well as tourism, heritage, and community place making.

Reclaiming Lost Spaces

Activating under used
Streetscapes
with small changes can result in
Amazing Places

Through Design we
strive to
Strengthen and Unify community

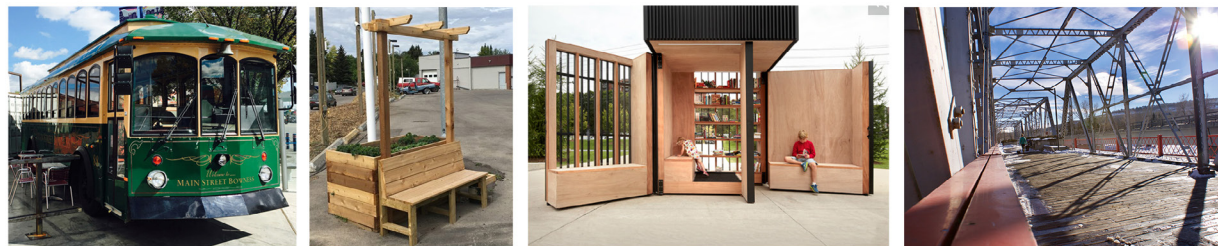
Community Voice:



Vision:

Identify strategic opportunities to
Connect
the community by embracing and
enhancing existing
small town Character along Bowness Road

Inspiration:



Pop-Up Placemaking
Greene & Greene
1/2

POP-UP
PLACEMAKING



Athens: Back Alleyway on Perikleous Street

Strategic Opportunities

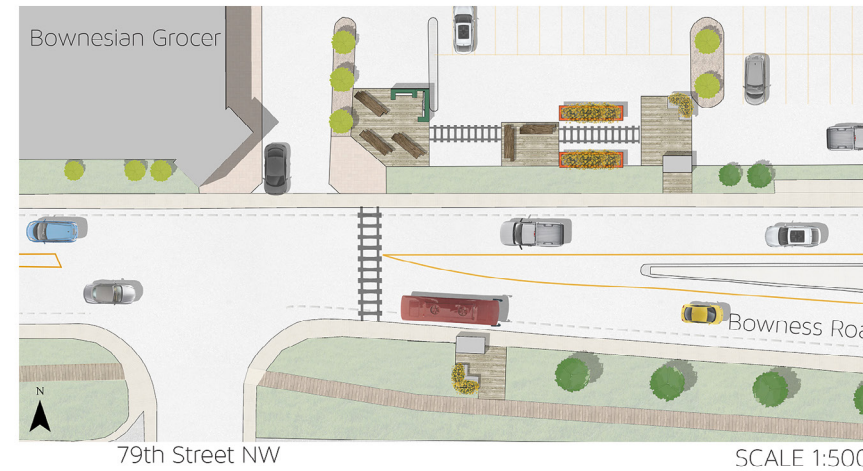
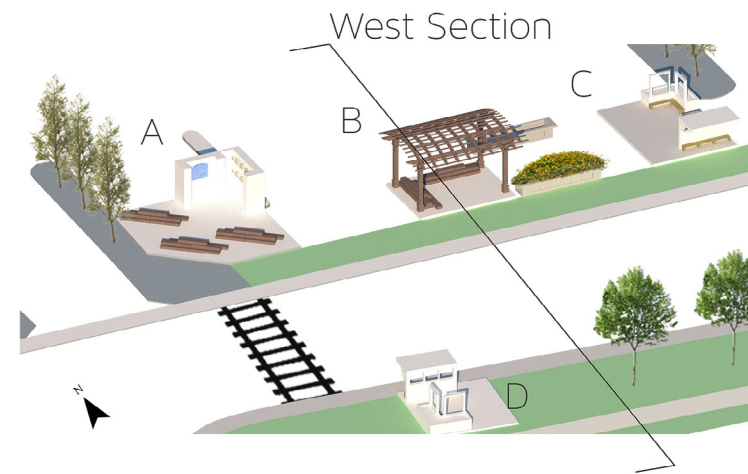
POP-UP
PLACEMAKING



Objective:

Take Inspiration from
existing community
infrastructure to Create a
coherent Identity along
Bowness Road

West Mall Social Space



LEGEND

- Pop Up Library- Flexibility to Adapt Use
- Linear Seating - Reclaimed Wooden Beam
- Painted Railroad Track on Pavement
- Planter Boxes
- Platforms - Recycled Rig Mats
- Bus Shelters - Resembling Street Car Aesthetic
- Planter Bench - Inspired by Bowest Urban Garden
- Boardwalk
- Existing Trees



West Section: Bowness Road



Creating Inclusive Streetscapes: Enhancing the Public Realm

Melissa Pope

The purpose of this project is to explore alternatives for improving streetscape design to accommodate safer pedestrian and cyclists experiences at specific locations along Bowness road. Results from the community workshop gathered information about how specific street design features and lighting influence resident's experiences of being a pedestrian or cyclist in Bowness. Factors frequently identified included the quality of lighting, visibility of and in crosswalks, and bus stop amenities. The community workshop identified three primary locations of concern for pedestrians and cyclists in Bowness: the railway underpass (Bowness Rd/70 St), Main Street (Bowness Rd) and Mary's Corner (Bowness Rd/60 St).

This project focuses on Main Street, to demonstrate possible safety improvements as well as improvements in the quality of pedestrian and cyclist experience. The following illustrations shows the redesigned streetscape. It turns one strip of angled parking on one side of the street into parallel parking. The space regained enables expansion of the sidewalk to accommodate a row of trees. These realignments narrow the street slightly and reduces vehicle speeds. The distance pedestrians have to cross the street is shorter and the trees provide shade summer cooling and enhance the quality of the pedestrian experience. A separated recreational bicycle lane between the sidewalk and parking is more accommodating to the general population, including younger riders.



Melissa Pope

Melissa is an Ontario-native and earned her Bachelors of Geography and Environmental Studies from the University of Ottawa. She moved to the Mountain West to complete her Master of Planning at the University of Calgary and developed an interest in urban design and community engagement. Melissa's professional planning interests include improving public spaces and creating streets for people.

Community Evaluation of Public Realm & Walkability

5 criteria to evaluate the pedestrian experience

3 locations identified as primary areas of concern



Lighting
sense of safety
visibility of sidewalk



Bus Stops
shelter
bench



Cycling
quality of lanes
sense of safety



Walking
sidewalk availability
even sidewalk tiles
sense of safety



Crosswalks
good location
clearly marked/visible
enough time to cross



Schools & Underpass



Limited space for vehicles and bicycles at underpass



Underpass poorly lit



Crosswalk lights difficult to see due to position of sun



Lower position of lights can be seen by drivers when sun is in eyes
Podegaren, Netherlands

Main Street



Commuter bike lanes are not always child-friendly



Pedestrian crossings should be clearly marked



Car speed yields a sense of discomfort for pedestrians



Bicycle lanes protected by parked vehicles
New York City, USA

Mary's Corner



Difficult to navigate for pedestrians and drivers



Uneven sidewalk tiles surrounding Bow-Crest



No bench at bus stop (on East side)



Lighted Zebra Crossing makes crosswalks more visible to drivers
Brunnen, Netherlands

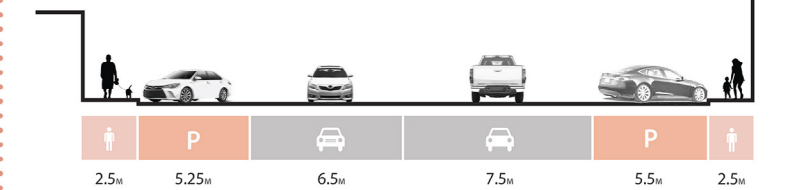
Pedestrian Experience Strategy

One of the primary areas of concern is

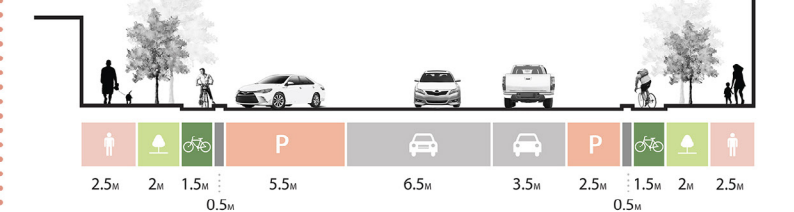
MAIN STREET

This is one possible solution to improve the public realm

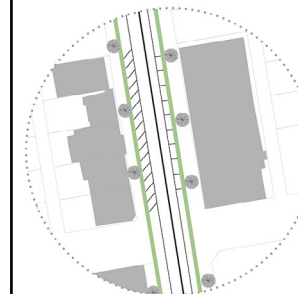
Current Conditions



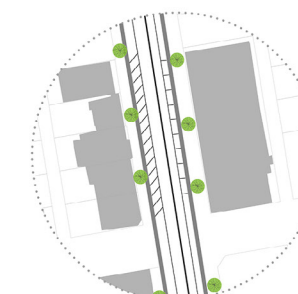
Future Potential Conditions



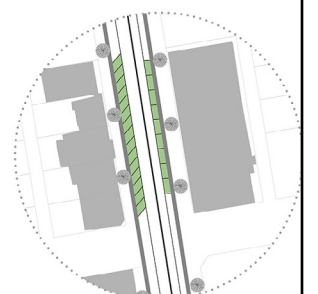
Primary Areas of Change



Separated bicycle lanes



Sidewalk enlargement for trees



Angled and parallel parking

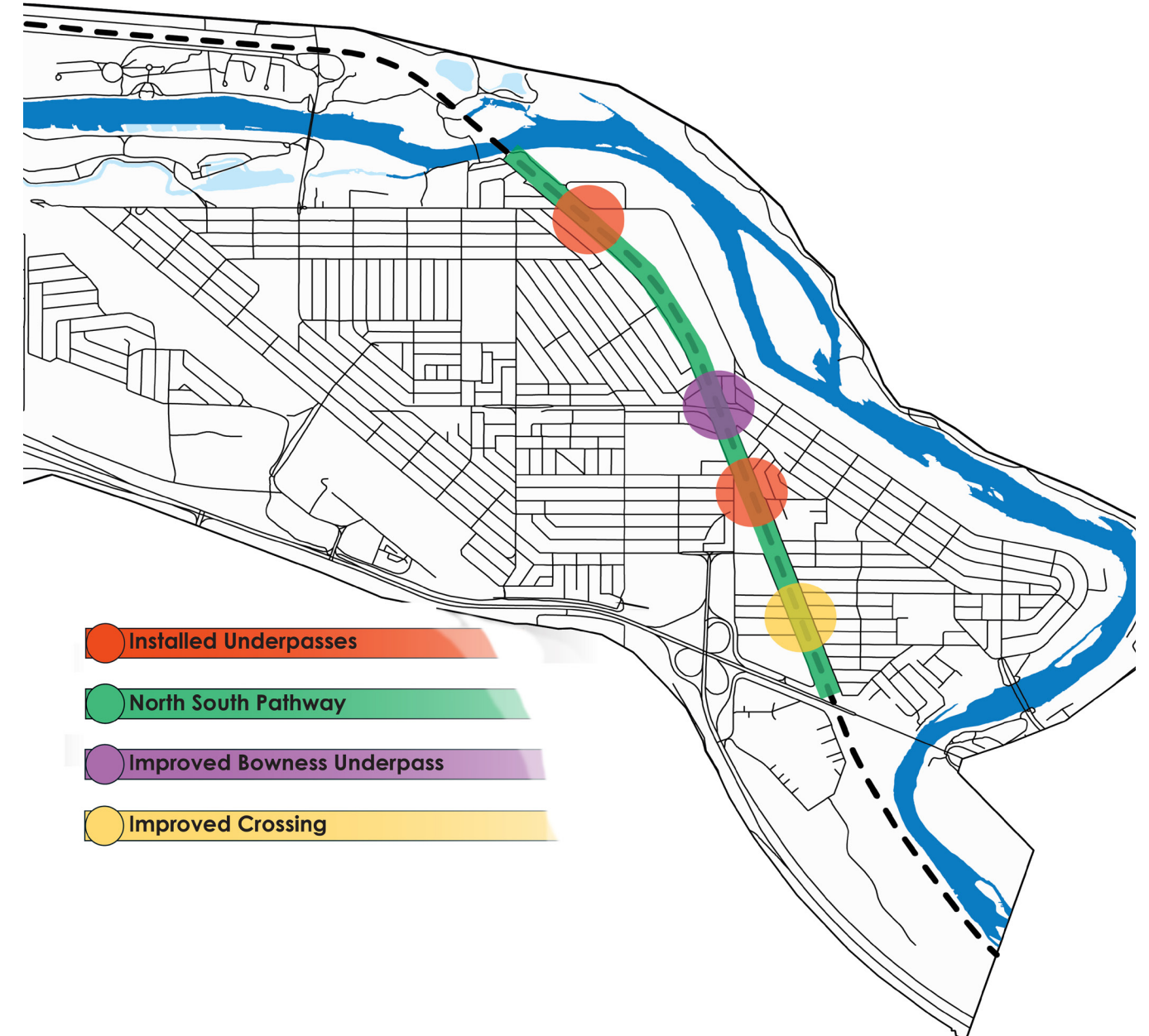
Bridging the Divide: Improving Connectivity by Improving the Railroad Lands

Camila Anne Ramos-Strankman

Bowness is a community historically 'divided'. As one of the oldest communities in Calgary, Bowness has unique physical characteristics. However, there are aspects of the built environment that can benefit from improvement. The Canadian Pacific railroad mainline bisects the community, literally cutting it in half and acting as a wall between east and west Bowness. It is a difficult barrier to cross.

There are only two current crossing locations along its 2.5 km length of the railway right of way through the community where pedestrians, cyclists, and vehicles are able to cross: the underpass on Bowness Road, and the at grade crossing on 32nd Avenue. These two crossings are minimalist and in poor condition which make them less than attractive to cyclists and pedestrians. For example, why would a parent take their baby in a stroller across the tracks when there is no sidewalk? Why would a child ride their bike along Bowness Road when there is no bike lane?

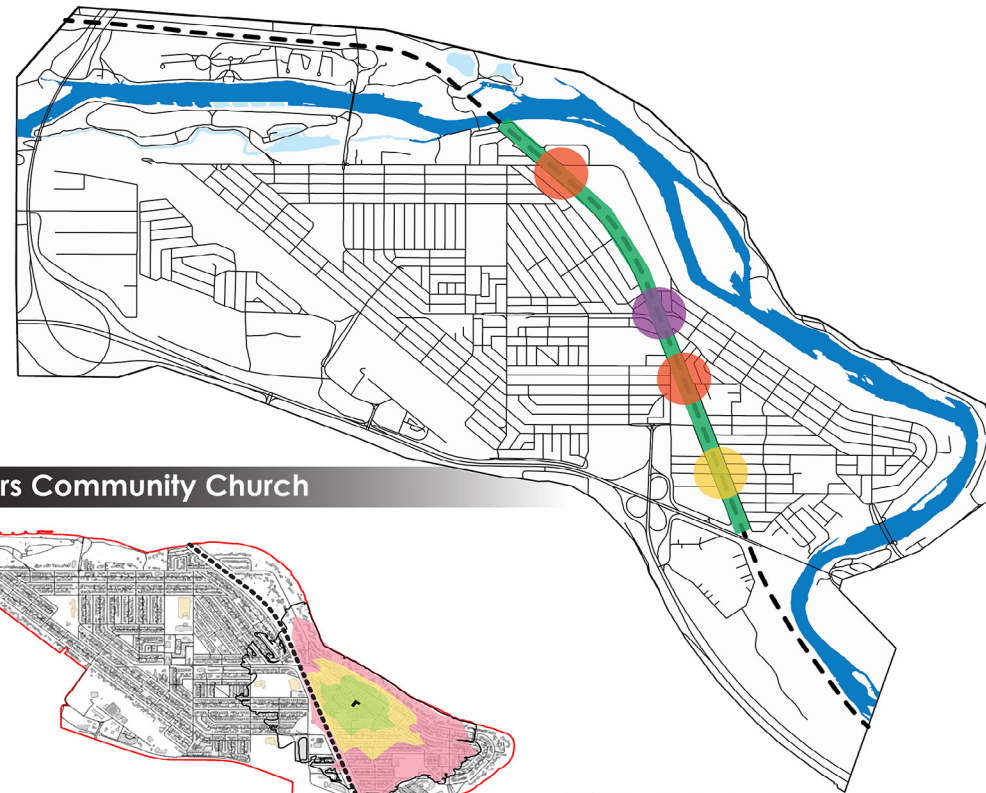
The purpose of this project is to identify feasible new crossing locations and improve the quality and access to the existing crossings. Therefore, as illustrated in the following graphic illustrations, new underpass crossings are proposed, but also improve the quality of the present crossings.



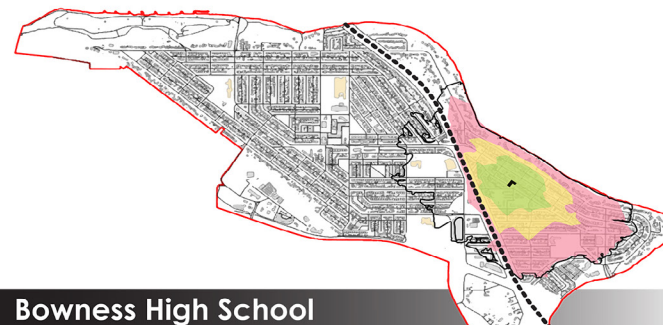
Camila Anne Ramos-Strankman

Camila studied Social and Environmental Psychology at the University of Calgary before she started her Planning degree. She tries to bring the human perspective to all her planning projects. After graduation, Camila hopes to join a team where she can work on developments and improve the public realm.

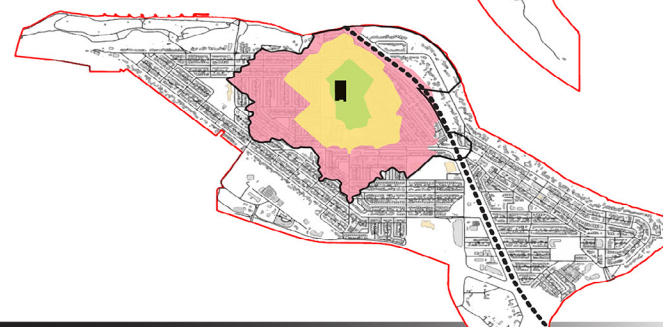
BRIDGING THE DIVIDE: Improving Connectivity by Improving the Railroad Lands



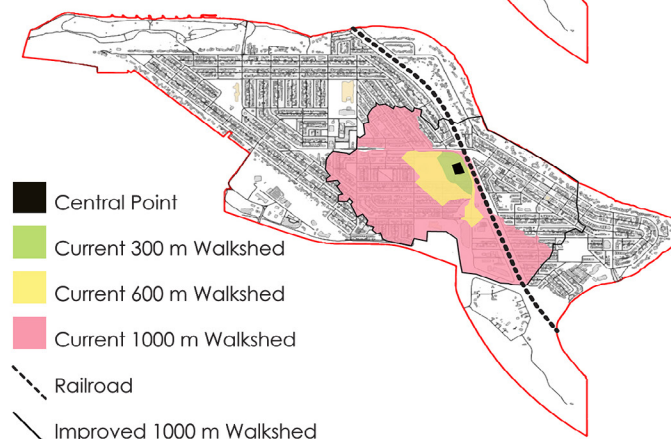
Bow Waters Community Church



Bowness High School



Thomas B. Riley School



Bridging the Divide
Ramos-Strankman
1/1

Installed Underpasses



North South Pathway



Improved Bowness Underpass



Improved 32nd Ave Crossing



Installed Underpasses

Two pedestrian underpasses are proposed for the community. Underpasses were chosen based on community preference for them over overpasses, and their location was refined after discussions with the community members. The design of these underpasses has been modified to be accessible by all. The tunnels will slowly slope downwards to allow for easy use by elderly, cyclists, and pedestrians. As well, they will be well lit so as not to deter their use late at night.

North South Pathway

To better connect the North to the South of Bowness, a pathway system that runs parallel to the railroad tracks has been proposed. This also acts as a means to connect all the crossings with one another and add to the pedestrian pathway system in the community. Another simple intervention, the project is small, but has large effects on the community.

Improved Bowness Underpass

The Bowness Road underpass is currently in need of beautification. The underpass lacks a bike lane, the sidewalks are narrow and deteriorating, there are stairs leaving the sidewalks that lead to nowhere, and the area is not well lit. The one redeeming quality is that the sidewalks are raised, acting as a barrier between the pedestrians and the vehicular traffic. Expanding the sidewalks, and adding opportunities for community murals will not only beautify the area, but cause the space to be a destination for residents and serve to identify the community.

Improved Crossing

While this crossing is better received by community members, it is lacking some basic infrastructure. Without even a sidewalk, this space deters pedestrians. It is more often used by cyclists who are attempting to avoid the traffic on Bowness Road and reach the Bow River Path system a short ride away. To improve this area, bike lanes and sidewalks have been proposed.

Bowness Green Connexions

Adetoun Osuntogun, Crystal Amber Jackson, Michael Vena

Bowness is a community known for its small-town character, diversity and abundance of parks, open spaces and neighbourhood destinations. Members of the community identified that connectivity and safety for pedestrians and cyclists are major concerns that need solutions. In addition, they also felt that the majority of existing parks and open spaces are not well used, often empty, and would benefit from seasonal programming activities.

The project objectives are to: improve access to popular community sites by identifying options for a network of safe, attractive, and flexible greenways connecting Bownesians to parks, open space, and other neighbourhood destinations from 'bridge to bridge'; and identify opportunities for routes to create a tangible experience of moving through the community and feeling a sense of place.

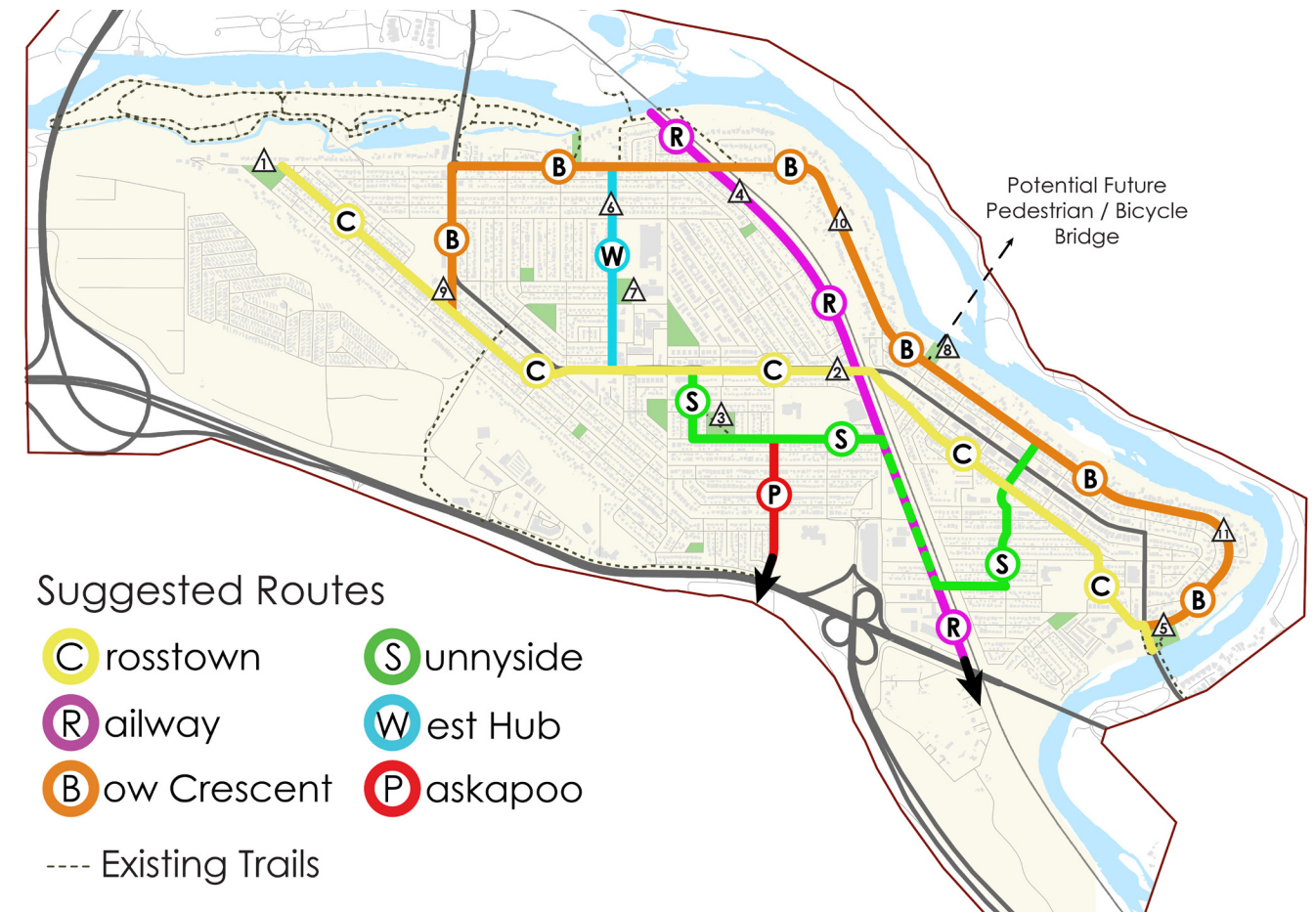
After analyzing current destination patterns; pedestrian and cyclist transportation routes; drainage and slope patterns; and drawing inspiration from the San Francisco Planning Department, the team identified a network of greenways accessible to residents and visitors for movement through the community. Greenways are special pathways that connect people to parks, open space, and other neighbourhood destinations. These pathways provide opportunities for greening and landscaping; enhancing wildlife habitat; managing stormwater; and calming traffic. They are routes that people will go out of their way to travel on because they are quiet, safe for walking and cycling, avoid fast moving traffic and use traffic calming elements (San Francisco Planning Department, 2014).

The proposed Bowness Green Connexions network described in the following illustrations includes six routes totalling approximately 13 kilometres. The name for each route indicates a target theme of the area. For example, the Crosstown and Railway routes are the main routes that connect Bowness from east to west and north to south, and should be the initial routes developed because they address Bowness' primary connectivity needs. The other routes: Bow Crescent, Sunnyside, West Hub and Paskapoo are feeder routes that connect into the two major routes. Implementation of the whole Bowness Green Connexions network is feasible over the next 15-20 years - an ambitious, but achievable goal for the community. Streets within the network could have a characteristic identify as suggested in the following illustrations.

Place making elements would activate the greenspaces and parks within and adjacent to the greenways. For example, place making elements such as gardens, art, sport and fitness areas, and street furniture could be located along a greenway route or located in existing underutilized public spaces to create unique, special, and memorable places that help foster neighbourhood identify, pride, and stewardship. Bownesians can use the greenway network to get to destinations around the community as well as participate in activities along the greenways before arriving at their final destination.

Specific points of traffic conflict with and among pedestrians, cyclists and motorists were examined and design solutions to reduce conflict are illustrated for intersections at Bow Crescent and Bowness Road and 85th St and 48th Ave. The design suggestions utilize scramble crossings, diagonal crossings, and traffic lights to reduce the conflict and improve safety for pedestrians and cyclists.

When looking at the network in its entirety, the majority of Bowness is within a 5-minute walking distance or 2-minute biking distance of at least one of the proposed greenways. Together, the proposed 6 routes serve the community by improving connectivity, people's accessibility to parks, open spaces, schools, and commercial areas in a safe, attractive, and pleasurable manner.



Adetoun Osuntogun

Adetoun is a graduate of Environmental Studies and is in her final year of the Master of Planning Program in the faculty of Environmental Design at the University of Calgary. She is passionate about improving access to public transportation and alternative transportation modes, she is also interested in affordable housing projects.

Crystal Jackson

Crystal has her undergraduate degree in Urban Studies, and is completing her final year of the Master of Planning program at the University of Calgary. She has an interest in regional growth strategies and change management which is paired with a strong passion for heritage planning and the conservation of historic resources.

Michael Vena

Michael is a graduate of the University of British Columbia holding a Bachelor of Arts in Geography and is currently a senior level Master of Planning student at the University of Calgary's Faculty of Environmental Design. He is passionate about urban transportation systems, especially those that improve public transit, walking and cycling opportunities.

Route Considerations
<http://indianapublicmedia.org>
<http://nacto.org/>
<https://i.cbc.ca/>
<http://storage.calgarysun.com/>
<https://www.google.ca/>
<http://i.feedtacom.com/photos/>
<https://image.shutterstock.com/>
<https://mobiloil.com/>
<http://wpmedia.calgaryherald/>

Placemaking
<http://www.newarkohio.net/>
<https://upload.wikimedia.org/>
<https://www.visitgrandforks.com/>
<http://jackrabbitsigns.com.au/>
<https://southerndistrictymca.files>
<http://cdn3.vox-cdn.com/>
<http://68.media.tumblr.com/>
<http://www.classicturf.org/>

Design Suggestions: Greenway Form
 Google Street View Snapshot (1-4)

Design Suggestions: Critical Intersections
 Google Earth Pro Snapshot (1-2)

BOWNESS GREEN CONNEXIONS

Connecting People to Parks, Open Space, & Other Neighbourhood Destinations

1/2

Bowness Green Connexions
 Osuntogun, Jackson, Vena
 1/2

Bowness Green Connexions are special pathways that connect people to parks, open space, and other neighbourhood destinations. These pathways provide opportunities for greening and landscaping; enhancing wildlife habitat; managing stormwater; and calming traffic.

The main objective of Bowness Green Connexions is to improve access to parks, open space, and other neighbourhood destinations by identifying possible options for a network of safe, attractive, and flexible walking and cycling routes. Additionally, these greenway routes will be designed to have a tangible sense of place where the experience of moving through the community is just as memorable as reaching the final destination.

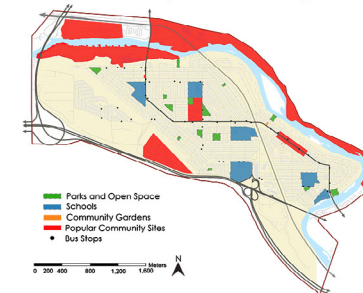
WHAT MAKES THESE PATHWAYS UNIQUE?

Greenways are envisioned to include a higher level of public realm interventions than standard city traffic calming, pedestrian safety, and bicycle projects.

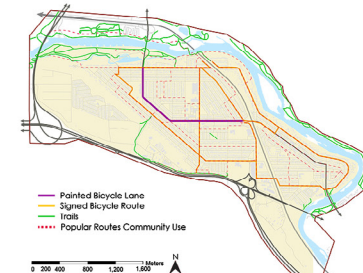
Greenways are intended to be routes that people will go out of their way to travel on because they are green, quiet, traffic calmed, and safe for walking and cycling (San Francisco Planning Department, 2014).

NETWORK CONSIDERATIONS

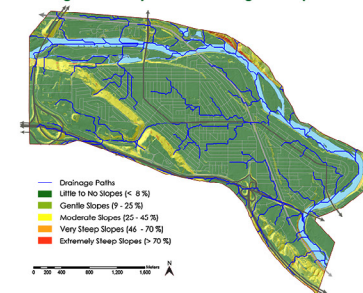
Existing Destination Systems: Places People Go



Existing Transportation Systems: Routes People Take



Existing Natural Systems: Drainage & Slopes



ROUTE CONSIDERATIONS

BUILDING ON OPPORTUNITIES

The following are examples of the positive street qualities that were taken into account when identifying the Bowness Green Connexions network:



AVOIDING CONFLICTS

In identifying the Bowness Green Connexions network, streets with the following features were typically avoided:



This map shows the general destinations that Bownessians currently go to shop, work, learn and play. Some of the destinations identified are Mainstreet, Bowness Mall, and Bowness Park.

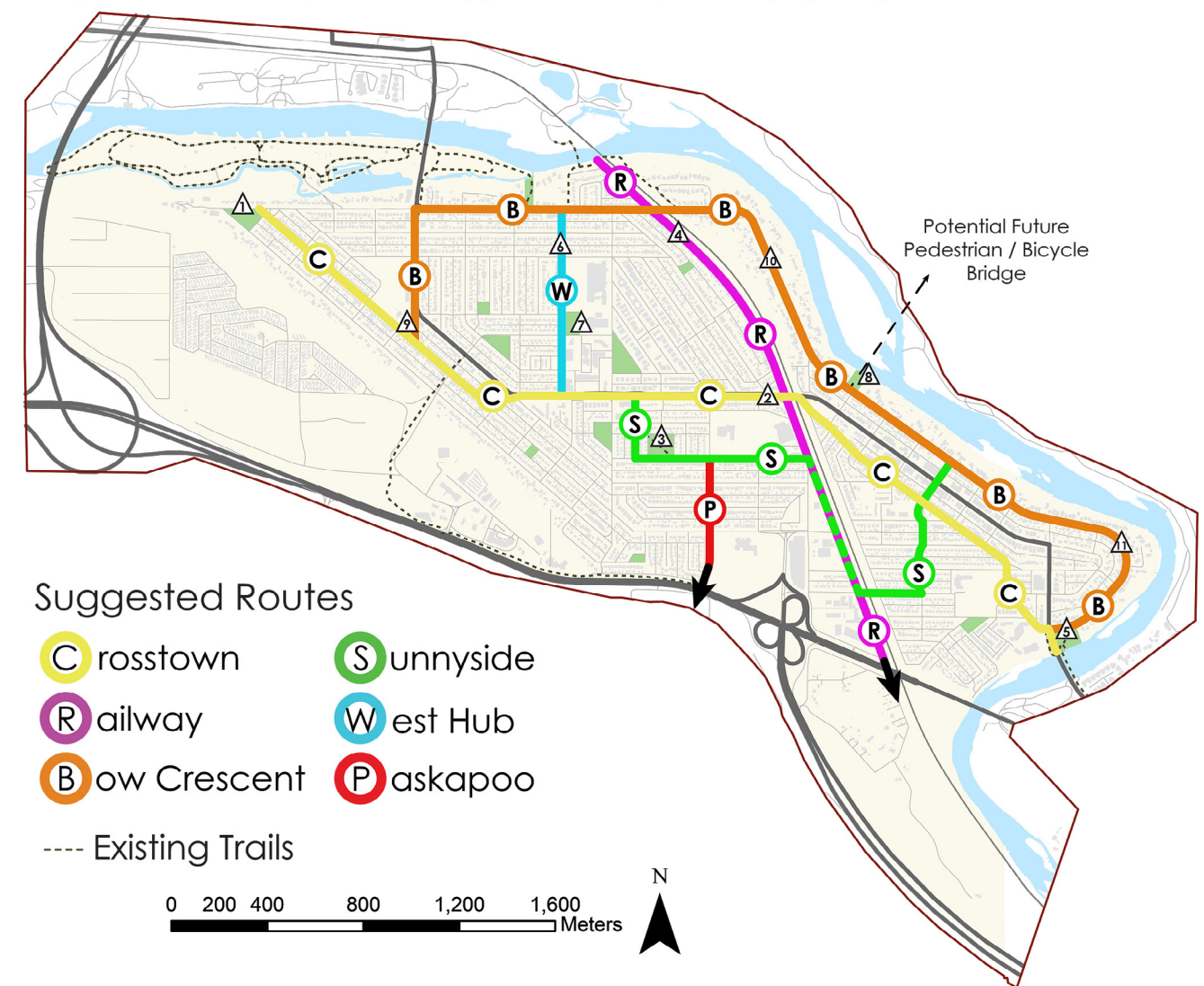
One of the guiding principles in determining the routes for the greenway network is that they should be located close to parks, open spaces, and other neighborhood destinations.

This map shows the transportation network that currently exists in Bowness. The current bike lanes, local and regional trails, roads, as well as common routes members of the community take to popular destinations are highlighted.

The routes community members use and the existing transportation infrastructure were some of the factors considered in creating the final greenway network.

BOWNESS GREEN CONNEXIONS NETWORK

The final Bowness Green Connexions network includes 6 routes that together total about 13 kilometres. The name for each route indicates a target theme of the area. Streets on the network could be designed using the standards suggested in the following illustrations. Implementation of the Bowness Green Connexions network is envisioned to take place over the next 15-20 years, an ambitious goal for the community of Bowness. The Crossstown and Railway routes should be the initial projects undertaken because they address Bowness' primary connectivity needs.



Suggested Routes

- C**rossstown
- R**ailway
- B**ow Crescent
- S**unnyside
- W**est Hub
- P**arkapoo

--- Existing Trails

PLACEMAKING

Placemaking elements such as gardens, art, sport and fitness areas, and street furniture along a greenway route or located at existing underutilized public spaces can create unique, special, and memorable places and can help foster neighbourhood pride and stewardship.



BOWNESS GREEN CONEXIONS

Connecting People to Parks, Open Space, & Other Neighbourhood Destinations

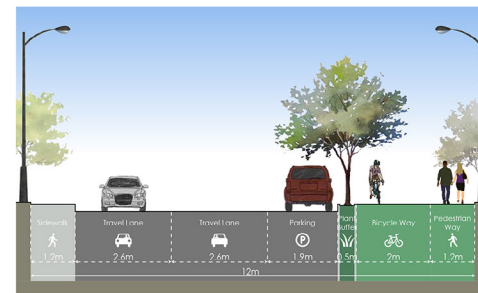
2/2

Bowness Green Conexions
Osuntogun, Jackson, Vena
2/2

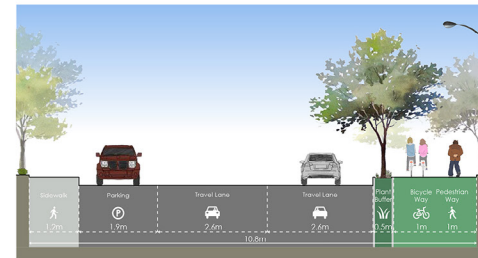
DESIGN SUGGESTIONS: GREENWAY FORM



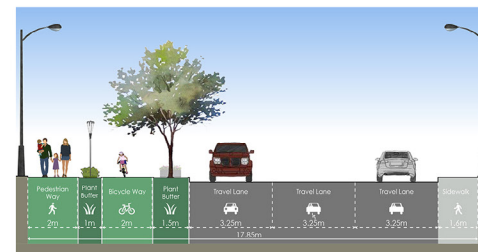
Generic Residential



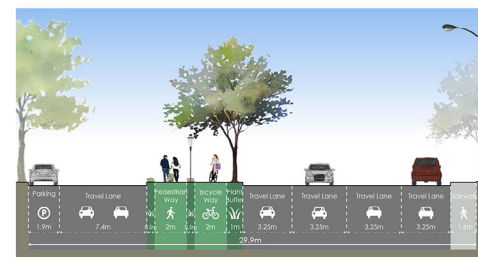
Bow Crescent



85th Street - Belvedere

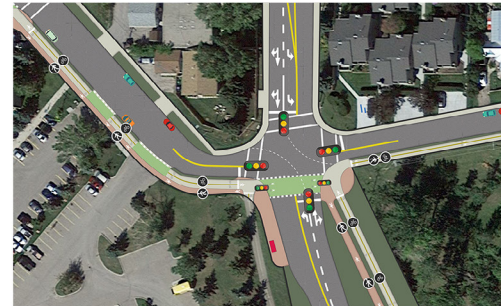


Bowness Road - Green Strip

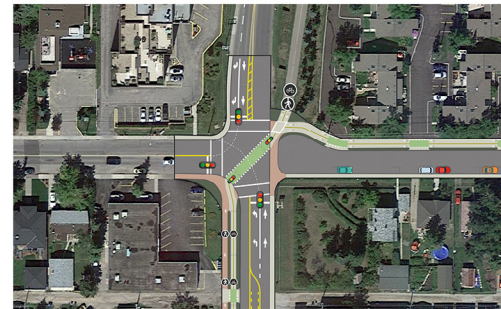


DESIGN SUGGESTIONS: CRITICAL INTERSECTIONS

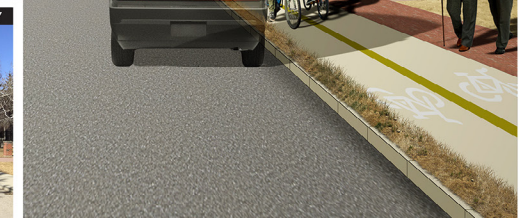
Moderate Intervention - Bow Crescent & Bowness Road



Showcase Intervention - 85th St & 48th Ave

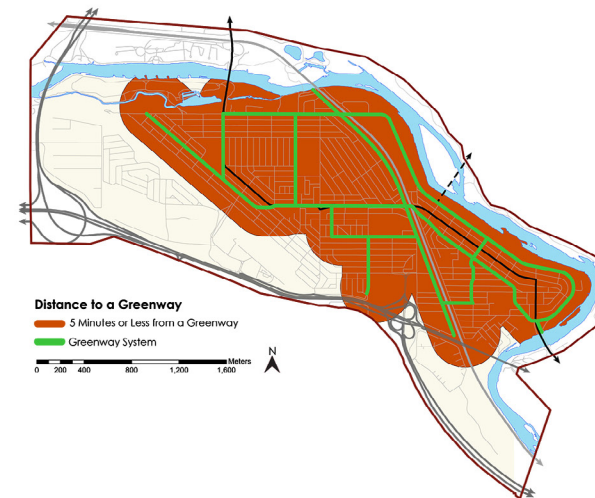


ENVISIONED BOWNESS GREEN CONEXIONS: GENERIC RESIDENTIAL



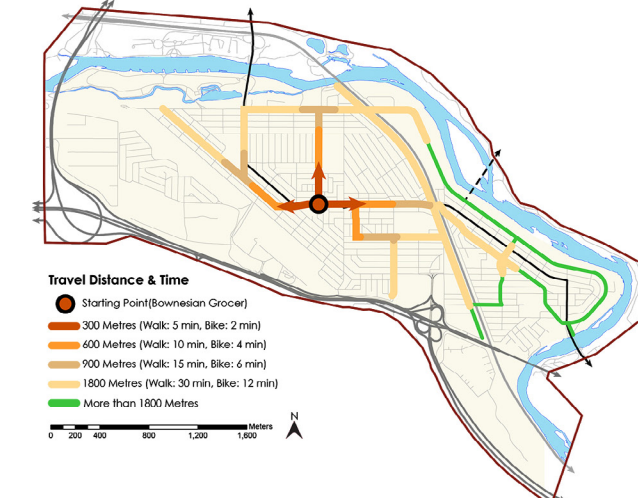
EVALUATING THE NETWORK: Distance-Time Models

Network Walkability



This map demonstrates that the majority of Bowness is within a 5 minute walk from one or more of the identified greenway routes. These 6 routes serve the community by improving people's accessibility to parks, open space, schools, and commercial areas in a safe, attractive, and pleasurable manner.

Sample Destination: Bownessian Grocer



This map takes a sample destination point (Bownessian Grocer) and denotes how far someone could travel along the identified greenway routes either on foot or by bicycle in a specified amount of time.

As depicted, from the Bownessian Grocer, nearly all of the greenway routes are covered by either a 30 minute walk or a short 12 minute bike ride.

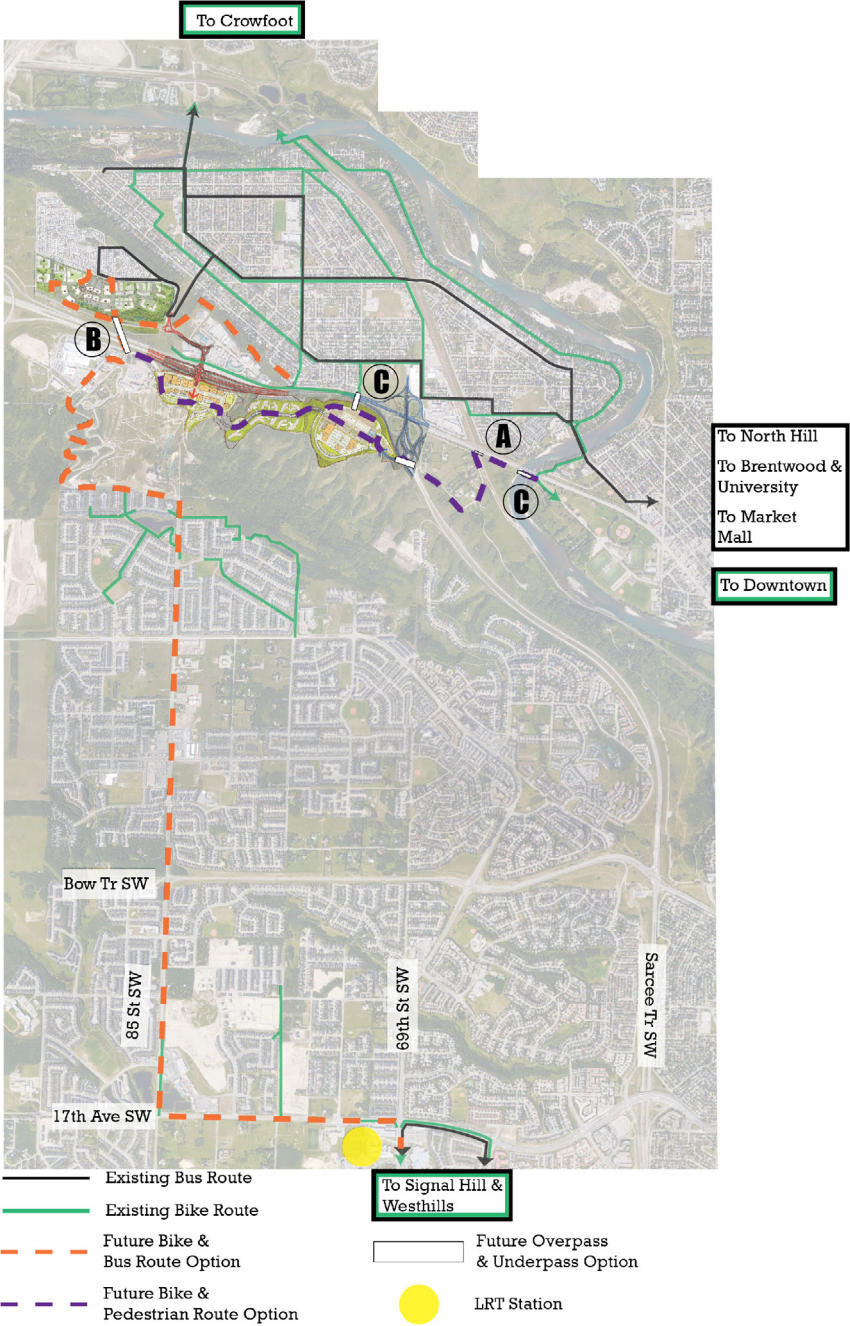
Bowness South Connections

Beckett Frisch

While speaking with Bownesians, I learned they value their lifestyle of walking & cycling to local amenities, but default to driving because of convenience. Looking at the existing network for cycling, walking, and public transportation within Bowness and to surrounding hubs, there is an obvious disconnect between Bowness and the Trans Canada highway land use corridor on the southern edge of Bowness.

Specifically, the new developments of Greenwich and Trinity Hills will incorporate mixed use and retail and office space equivalent to 2.5 Market Malls. [Community workshop information identified Market Mall is a frequent destination of Bownesians] However, while spatially within walking and cycling distance of Bowness, the slopes and lack of access along the Trans Canada corridor currently makes Greenwich and Trinity Hills inaccessible other than via car. Therefore, the goal of this project is to identify potential multi-modal transportation options for Bownesians to access these developments.

To establish southern connections with Bowness, this project proposes an extension of the Bow River Pathway system from Shouldice Park to Trinity Hills and Greenwich, including two private-automobile free bridges over the Trans Canada highway. Furthermore, a bus route separated from heavy traffic connecting the Bowness community hub area with Greenwich, Trinity Hills, and other locations in the southwest including: West Springs, Aspen Landing, and the 69th Street Blue Line LRT station. Creating these connections will provide Bownesians with more transportation options and greater access to a much larger service area, amenities, and transportation links to the south.



Beckett Frisch

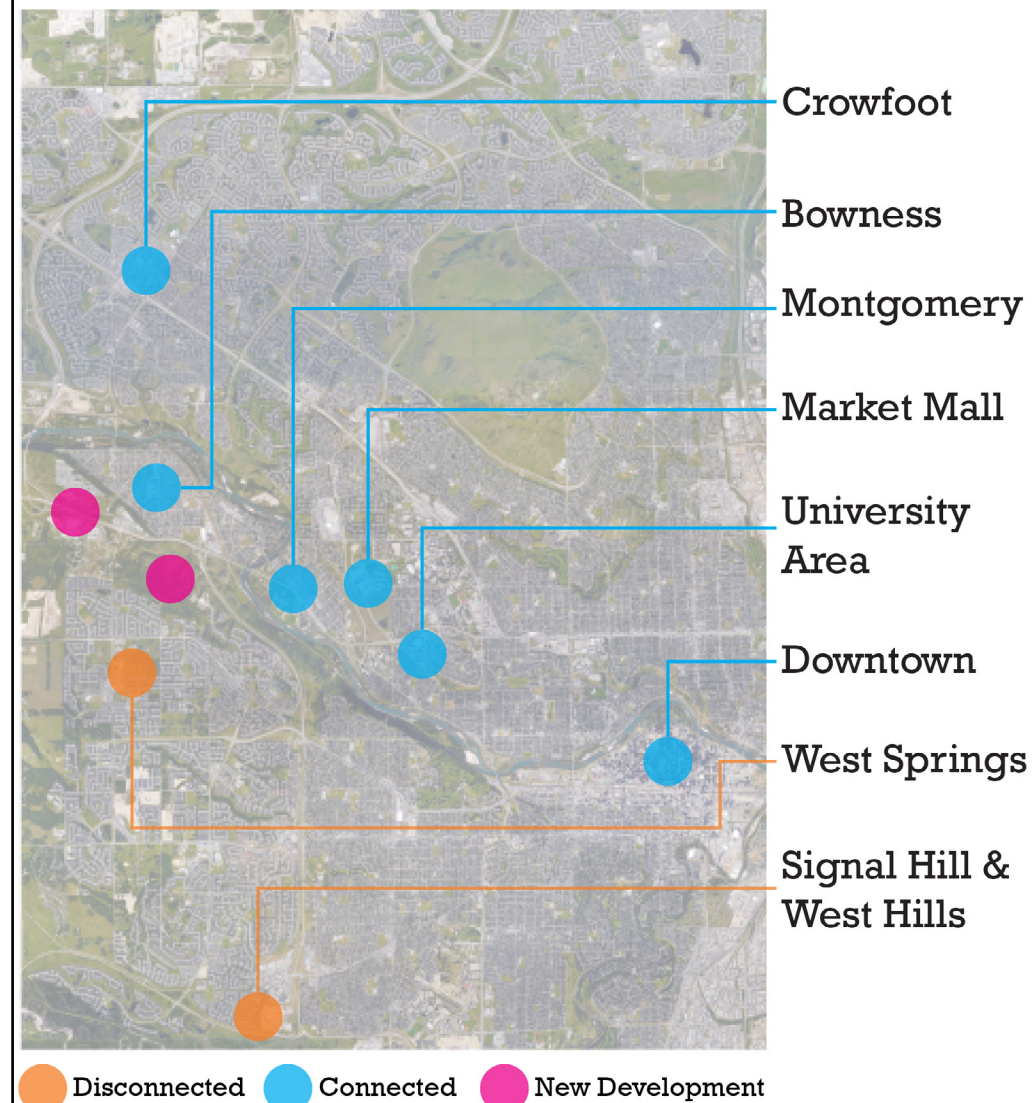
Beckett graduated in 2013 with a B.A. in Economics from the University of Maine. Prior to pursuing economics, she was a civil engineering major with a focus in transportation engineering. Her planning interests focus on socio-economic spatial justice, and providing all urban citizens the opportunity to access their city via transportation modes of their choosing.

Bowness South Connections



Greenwich
Trinity Hills

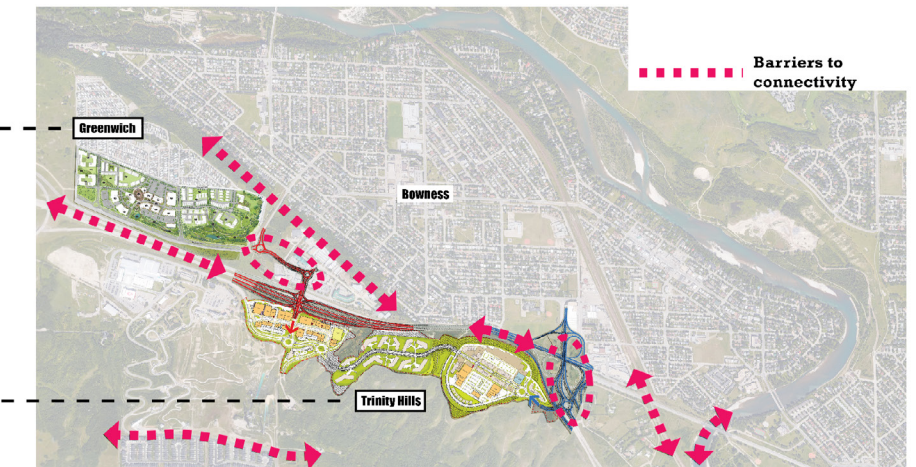
Where Bownesians Go



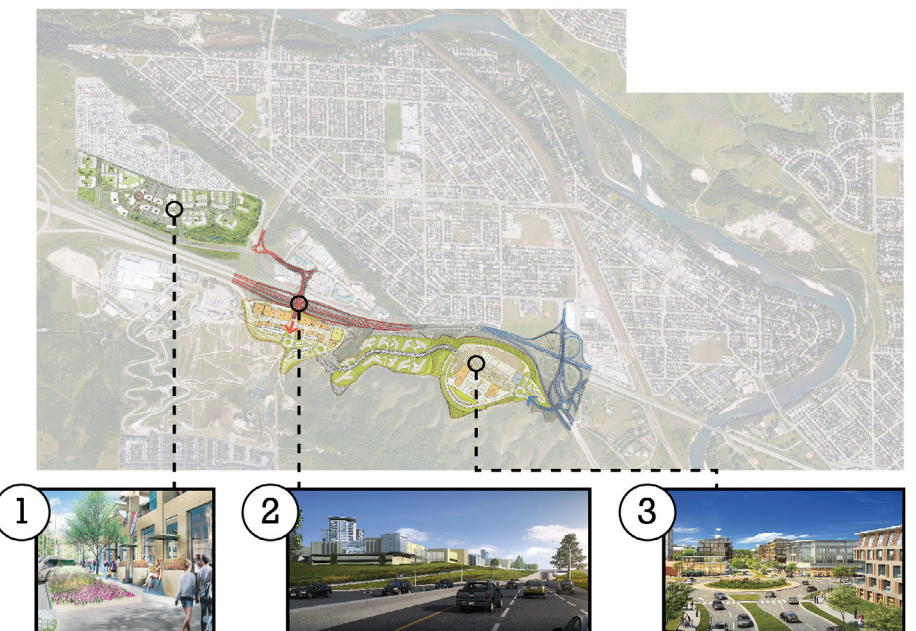
Future Developments

Greenwich
Residential: 600 units
Retail: 100,000 ft²
Office: 319,000 ft²

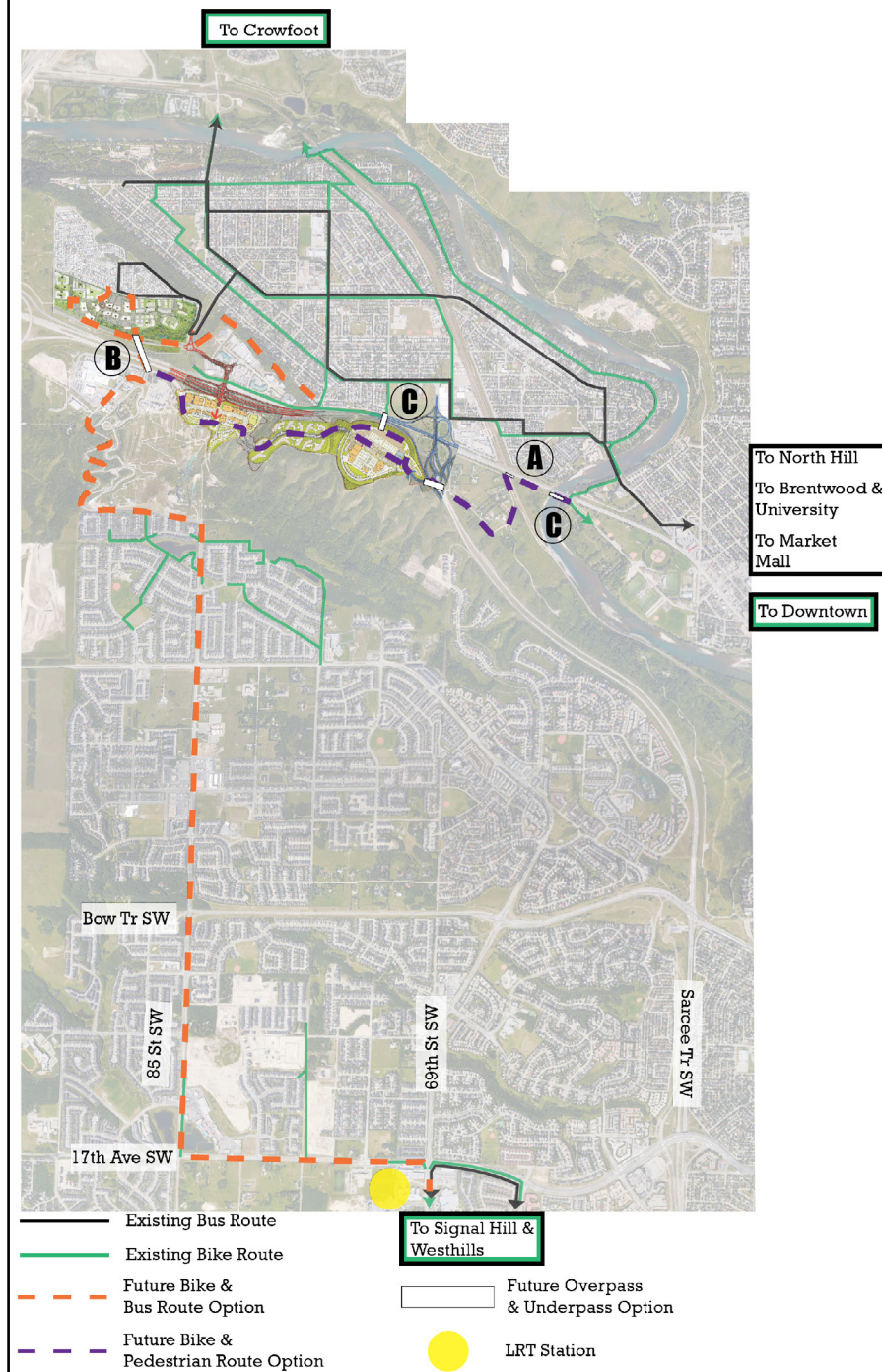
Trinity Hills
Residential: 1500 units
Retail: 600,000 ft²
Office: 150,000 ft²



- 1. Retail Promenade**
Boutique retail corridor & grocery store
- 2. Gateway District**
Specialized & large scale retail
- 3. Town Centre**
Retail; no minimum parking requirements

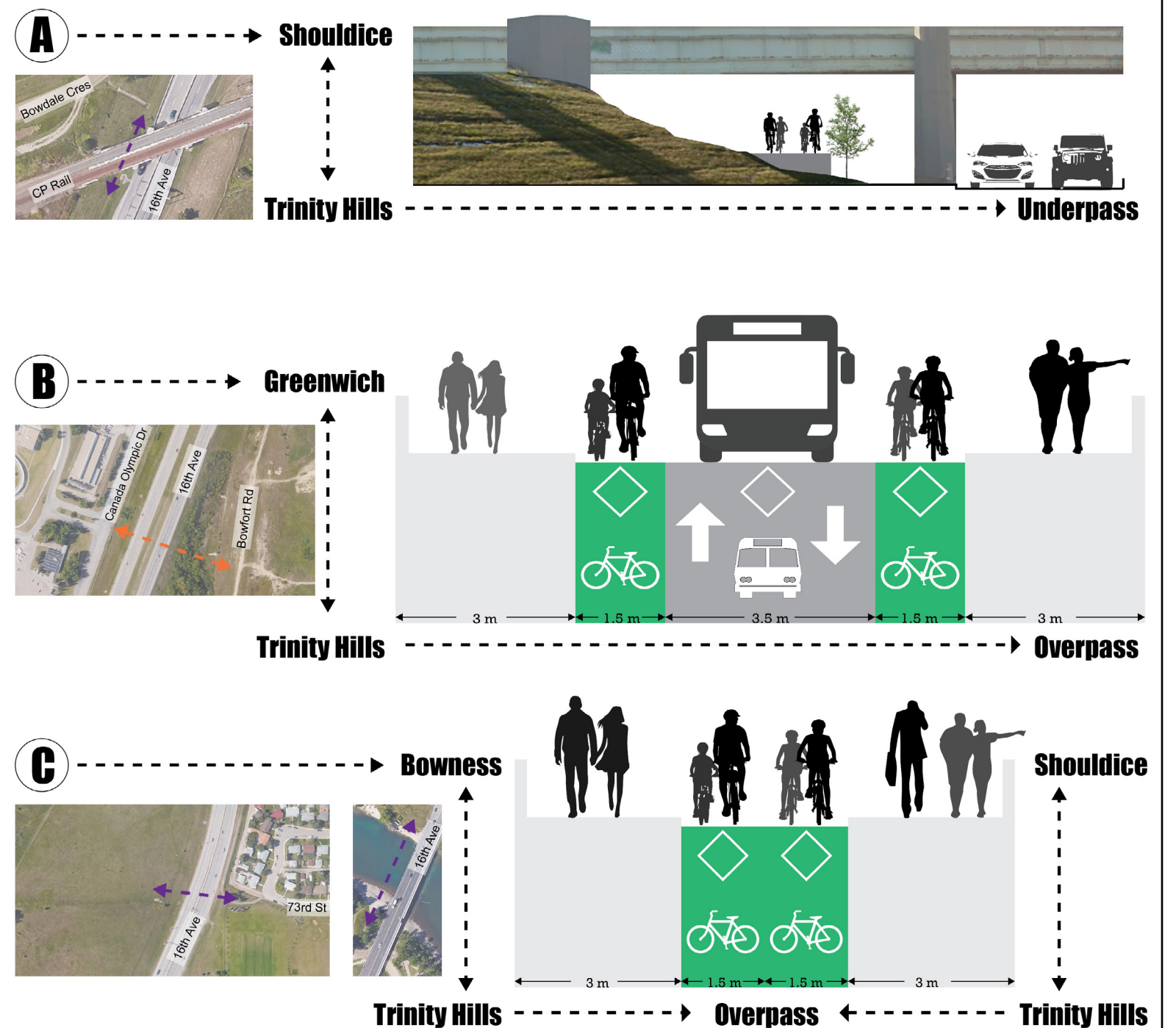


Future Connectivity Opportunities



Bowness South
Conexions
Frisch
2/2

Future Alignment Possibilities



Copyright and Permissions

The projects contained in this report were done as part of coursework leading to the degree Master of Planning. Copyright remains with the authors of the work. Please do not reproduce or quote material within this report without the written permission of the Dean's Office, Faculty of Environmental Design, University of Calgary