





A VISION FOR THE STEWART STREET NEIGHBOURHOOD



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Active Neighbourhoods Canada (ANC) is a network of communities across Canada that use participatory planning - for and with citizens to build green, active and healthy neighbourhoods. The partners in this network work together to create living environments better adapted to walking and cycling.

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Trent Community Research Centre



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1.1 Executive Summary

'A Vision for the Stewart Street Neighbourhood' is an active neighbourhood plan designed to help local residents achieve their goals and aspirations for the future of their community. The plan centres around three main features:

1) A Design Toolkit for the Stewart Street Neighbourhood

This section presents a vision for the neighbourhood, and distills this vision into six guiding principles: Accessible Design, Child-Friendly Design, Greenscaping, Mobility and Connectivity, Placemaking, and a Safe Neighbourhood. The toolkit offers suggestions for how these principles can be incorporated into the current and future redevelopment of the neighbourhood's public spaces.

2) Local Priorities for Design Intervention

This section outlines the priority areas in need of redesign or redevelopment, based on the needs and concerns of neighbourhood residents.

3) The 'Bethune Active Streetscape Plan'

This section presents a reimagination of the neighbourhood's physical character, with well-lit and newly active public spaces, streets designed for people, and a southern active transportation gateway to a greenscaped linear park running through the neighbourhood's centre. The design plans focus on the redevelopment of three priority areas: Bethune Street, Stewart Street Park, and a new public space on Bethune between Wolfe and Townsend. The proposed designs could be realised as part of the City of Peterborough's upcoming flood mitigation plan for Bethune Street. Each area is addressed using the design toolkit, and the plans demonstrate how the Stewart Street neighbourhood vision can be achieved through targeted design interventions.

The context for the plan is presented in the Project Introduction, after which the plan delves into the Design Toolkit, the Local Priorities for Design Intervention, and finally the 'Bethune Active Streetscape Plan.' The components of the 'Bethune Active Streetscape Plan' are designed to improve mobility, connectivity, and safety for neighbourhood residents. Placemaking strategies, greenscaping, and child-friendly design opportunities combine to improve quality of life and foster civic pride. Along with the neighbourhood vision and design toolkit, the components of this plan can support future, communityfocused redevelopment and catalyse transformation in the Stewart Street neighbourhood.

This plan has been produced in collaboration with neighbourhood residents and the Stewart Street Active Neighbourhoods Steering Committee. It is rooted in Peterborough's planning policy and informed by best practices for public realm design. The objective of this plan is to provide Stewart Street residents with the tools to realise an ambitious neighbourhood vision distilled from their input throughout the project. Residents may use this plan to advocate for their goals and aspirations when faced with future municipal redevelopments, but can also use the design toolkit to develop grassroots plans and design interventions of their own. The proposals within the 'Bethune Active Streetscape Plan' should be understood both as examples of how the neighbourhood vision and guiding principles can be applied, and as advocacy tools to help residents participate in consultations for the upcoming Bethune Street redevelopment.

1.2 Project Partners

The School of Urban and Regional Planning, Ryerson University

The Ryerson University planning studio team is comprised of seven graduate students working under the supervision of Dr. Raktim Mitra. The studio team has been responsible for developing the 'Vision for the Stewart Street Neighbourhood' plan. The team led the March 2016 Citizens' Forum to solicit feedback to inform the plan.

The Stewart Street Active Neighbourhoods Steering Committee

The Stewart Street Active Neighbourhoods Steering Committee is comprised of Stewart Street neighbourhood residents, and representatives from multiple community organisations, the City of Peterborough, and Trent University. Peterborough GreenUP is the lead organisation, and coordinates steering committee meetings and ANC project activities. Other community organisations represented on the committee include: the Nourish Project (formerly the Peterborough Community Garden Network), B!KE: The Peterborough Community Cycling Hub, and the Trent Community Research Centre. The City of Peterborough is represented by one staff member from the Planning Division, and one staff member from Transportation Demand Management. Trent University is represented by two faculty members and an embedded graduate student researcher.

Stewart Street Neighbourhood Residents

Local residents of the Stewart Street neighbourhood have been actively involved over the span of this collaborative project, through membership on the Steering Committee, attendance at consultation events, and in developing their Neighbourhood Portrait.

The Toronto Centre for Active Transportation

The Toronto Centre for Active Transportation (TCAT) is a notfor-profit research and education organisation that advances the principles of better pedestrian and cycling environments. TCAT is responsible for coordinating the Active Neighbourhoods Canada projects in Ontario.



Stewart Street Car-free "Play Streets" Event. [Source: Stewart Street Active Neighbourhoods Project]

1.3 An Active Neighbourhoods Canada Project

The Stewart Street Active Neighbourhoods project was undertaken as part of a participatory planning process developed by Active Neighbourhoods Canada. Active Neighbourhoods Canada (ANC) is a national partnership of organisations piloting participatory planning projects across the country. In Ontario, these projects have been led by the Toronto Centre for Active Transportation.

The ANC mandate is to engage residents and communities that have traditionally been excluded from the planning process in directly remaking their neighbourhoods through principles of active transportation. ANC has developed a three-phase methodology for these projects. Stewart Street neighbourhood residents have been involved in this collaborative process throughout the three phases:

Phase 1: Understanding

The first phase of the project involved understanding the unique local context in the Stewart Street neighbourhood. Project partners collected information through surveys, observations, and collaborative consultation activities to create a Neighbourhood Portrait. The Neighbourhood Portrait identifies challenges and opportunities for active transportation and public realm interventions in the Stewart Street neighbourhood.

Phase 2: Exploring

The second phase sought to establish a common vision for the neighbourhood and to propose design interventions that reflect resident priorities. A Professional Workshop and a Citizens' Forum brought planners and designers together with residents to brainstorm and discuss site-specific design concepts.

Phase 3: Building

The third phase has seen the development of this 'Vision for the Stewart Street Neighbourhood' plan, which distills all the information and feedback collected through the early phases into a document that will guide public realm design. Stewart Street neighbourhood residents may now pursue the implementation of the vision and ideas presented in this plan. The plan can be used to advocate for resident priorities when working with municipal officials, local organisations, and other stakeholders in the Stewart Street neighbourhood.

The scope of this plan does not extend to implementation strategies or project budget considerations. The goal is that the tools within this plan can help residents to build working partnerships with local organisations and institutions to realise their vision for the neighbourhood.



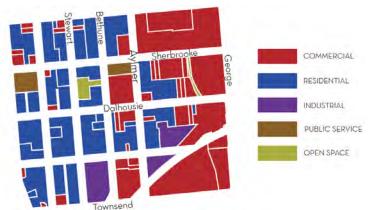
Stewart Street neighbourhood Citizens' Forum. [Source: Paul Flude]

1.4.1 Neighbourhood Context: Existing Conditions

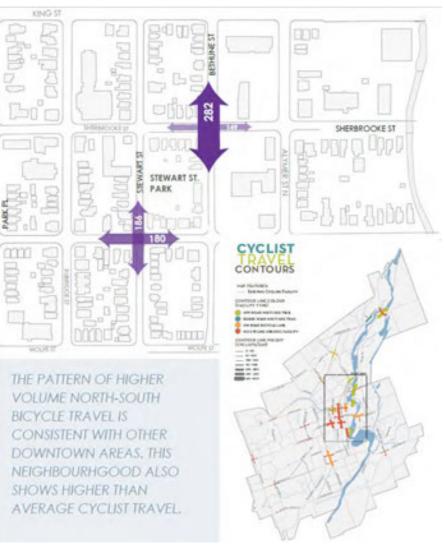
Land Use and Built Form

The Stewart Street neighbourhood is located in the central area of Peterborough, just southwest of the downtown core. It is a low-density, mixed-use neighbourhood, primarily residential in the west and commercial in the east. Its eastern edge is framed by George Street, a heavily-trafficked commercial corridor. The other streets are arterial, collector, and local roads with less intensive uses. Near the heart of the neighbourhood is Stewart Street Park, a small but popular destination for local children.

Development in the Stewart Street neighbourhood began in the 1890s, and today's residents benefit from a walkable street grid that was laid out before private vehicles became widely accessible. The grid makes it possible for residents to access local businesses on foot. Many neighbourhood homes have porches, unfenced yards, and shallow setbacks, which help to blur the distinction between public and private space. The Stewart Street neighbourhood benefits from many characteristics that are conducive to an active street life, making it an ideal choice for design interventions that support active transportation and community activity.







Stewart Street neighbourhood cycling volume counts 2014. [Source: Stewart Street Active Neighbourhoods Project]

Life and Demographics

The Stewart Street neighbourhood was once home to many employees of the nearby General Electric (GE) plant. GE operations have declined considerably with de-industrialisation in Peterborough. Present demographic characteristics include lower household incomes relative to other parts of the city, with low rates of home and vehicle ownership. The population is younger than most neighbourhoods in Peterborough and includes many families with children. Walking and cycling are important modes of transportation for residents; many important amenities, including a grocery store and the city bus terminal, are located within walking distance. The robust social infrastructure growing in the Stewart Street neighbourhood signals exciting possibilities for its future transformation. Recently, residents mobilised to spur investment in Stewart Street Park, making it a more dynamic place for children to learn and play. Thanks to residents' efforts, Stewart Street Park now features community garden plots, fruit trees, and a new playground. These projects provided the opportunity for residents to collaborate and use this public space to articulate their shared values. The ongoing success of Stewart Street Park signals the tremendous potential for community-driven neighbourhood revitalisation.



Residents gather for a performance at Stewart Street Park. [Source: Stewart Street and area residents Facebook page]

1.4.2 Neighbourhood Context: Resident Perspectives

The collaborative engagement process used for the Stewart Street Active Neighbourhoods project has provided residents with opportunities to express their concerns and hopes for their neighbourhood. The following section summarises the feedback offered by residents to inform this plan.

Public Safety

Residents are primarily concerned with issues of public safety, including poor maintenance and criminal activity. Residents have identified unsafe spaces in the community and have noted deficiencies in the physical environment, including missing and damaged sidewalks, missing curb cuts, poorly maintained properties, and poor lighting. The streets are perceived as unsafe for cycling and the sidewalk network is not sufficiently robust to accommodate mobility scooters. A number of intersections are difficult to cross, especially for children, and residents are concerned with fast vehicular traffic and disregard for stop signs.

Active Transportation

Residents have indicated that designated or physicallyseparated cycle lanes are preferable to lanes that are shared between vehicles and cyclists. There is concern that the City of Peterborough would be unwilling to invest in physicallyseparated lanes, leading some participants to favour painted lanes instead. Multiple residents have expressed concerns over how best to accommodate cycle lanes and parking, which are both desired. Unlike physically-separated lanes, painted cycle lanes are less protected from traffic, can be blocked by vehicles, and can increase the risk that cyclists may collide



Stewart Street neighbourhood Citizens' Forum. [Source: Paul Flude]



Missing pathways in Stewart Street Park. [Source: Ryerson Studio Team]



Cyclist on Bethune Street. [Source: Ryerson Studio Team]

with opening car doors. Residents note that dedicated space for bicycle travel could reduce instances of cycling on the sidewalk or cycling in a manner counter to traffic laws. Multiple residents have expressed the desire to see cycling infrastructure on Bethune Street that would connect to existing and proposed trails to the north, south, and east.

Residents have also expressed interest in improved pathways for pedestrians and for those with mobility devices. Many of the existing sidewalks are currently in need of repair and difficult to navigate, forcing residents with mobility scooters into the roadway. Recommendations for sidewalk amenities include benches and trash cans. There are concerns that new features will be intentionally destroyed or tagged with graffiti.

Traffic Calming

Residents have indicated preferences for street narrowing over more intense interventions, such as half- or full-road closures. At intersections, residents prefer the idea of raised pavement to centre pedestrian islands or street murals, however there is interest in combining these strategies in certain areas. Residents have expressed concerns over the cost of proposed interventions, the need for mural maintenance, and the City of Peterborough's commitment to wide turning radii which facilitates faster driving through intersections.

Greenscaping

Residents have expressed support for all kinds of greenscaping proposals - street trees, rain gardens, and linear greenways alongside wide sidewalks. Additional vegetation and green elements are considered important contributions to quality of life and sense of place. There is a preference among residents for incorporating native species, edible landscapes, and plants friendly to pollinators. There is concern regarding the maintenance of these green assets, although the existing community stewardship networks over local public spaces could help to mitigate this issue.



Bethune Street in winter. [Source: Ryerson Studio Team]

A New Public Space

Residents overwhelmingly prefer a design that transforms the south end of Bethune Street into a new public space over a streetscape design that would permit vehicular traffic. Suggestions for this space include greenery space, market areas, music or busker space, a skate park, a fountain or water feature, a dog park, an amphitheatre, and edible landscaping. Residents emphasise that this public space must accommodate users of all ages and abilities, regardless of what is planned there. Concerns include safety, lighting, noise, and the future of the adjacent GE parking lot, as a future use on that land could impede the use of this south end of Bethune Street as a recreational public space. Residents are interested in a community-focused future for the currently underused lot.

Improvements to Stewart Street Park

Residents would like the Stewart Street Park entrance at Bethune Street to be more visible, and they have identified a mid-block crosswalk as a potential solution that would also improve park access for pedestrians. They are interested in maintaining some form of a boundary between the park and the street, but they are generally partial to beautifying the existing fence through public art or replacing it with a planted buffer. The existing entryway is recognised as a problem for individuals using mobility devices and for young children, for whom there is potential to bump the fence when running in and out of the park.

Residents are in favour of new elements for the park, however they have identified challenges around particular ideas for interventions. There is concern that introducing a community cooking element might encourage dangerous fire-related activity and attract pests. Conversely, a quiet space or concentrated seating area could attract drug- or alcoholrelated activity after dark, which would present particular challenges for residents who live close to the park. Residents have also noted a potential point of conflict between people who wish to see the park cater to children and others seeking open space for their pets.

Residents of all ages suggested new features for the park. Suggestions include additional trees and plantings, a pool or splash pad, a sandbox, space and activities for dogs, shaded seating, a piano, a tire swing, slides and climbing equipment, tetherball and horseshoe courts, and new spinning elements for the playground. Residents have also suggested upgrades to the existing basketball court. Finally, while the park is an important play space for neighbourhood children, residents would like it to accommodate people of all ages and abilities.

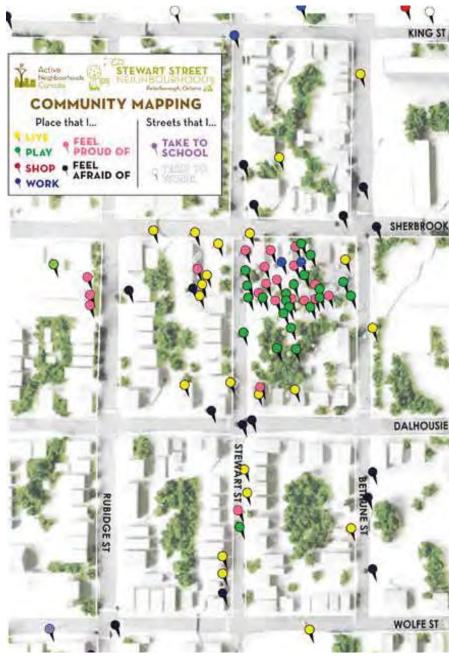


Children play in Stewart Street Park. [Source: Paul Flude]

Social Infrastructure

Some issues in the Stewart Street neighbourhood will not be entirely solved through site-specific design interventions. Many residents are concerned with prostitution and drug use along Bethune Street, suggesting the need for robust social planning and economic development strategies. Residents proposed a neighbourhood watch group or other community action to improve safety. It is outside the scope of the ANC project to propose social planning interventions. That said, the streetscape and public space improvements proposed in this plan are important mechanisms to build a safer, more communityoriented neighbourhood.

With regard to the Stewart Street Active Neighbourhoods project, residents are concerned that the City of Peterborough may be unable or unwilling to invest in the interventions they require. There is some concern about a general lack of awareness in the community of the ongoing surveys and consultations, indicating the need for improved outreach within the Active Neighbourhoods project. Greater outreach is required from both local stakeholders and the City of Peterborough.



Community Mapping Exercise. [Source: Stewart Street Active Neighbourhoods Project]

1.5 Municipal Policy Context

The vision for the Stewart Street neighbourhood should be embedded in and informed by the policy direction established by the City of Peterborough. As such, this plan is an opportunity to align resident priorities and municipal development goals to encourage community-oriented revitalisation.

Central Area Master Plan

The Stewart Street neighbourhood is a vital component of the City of Peterborough's Central Area. With its proximity to the downtown core and waterfront assets, the neighbourhood is uniquely positioned to help realise active transportation goals in this growing urban centre.

The Central Area Master Plan clarifies and enhances the City's Official Plan policies for the downtown by identifying opportunities, designating priorities, and stimulating creativity in the historic heart of the municipality. At present, the Stewart Street neighbourhood primarily supports low-intensity residential, commercial, and service uses. The Master Plan envisions this area evolving to support a larger mix of uses and more intensive residential development. Greater connectivity and ambitious redevelopment opportunities will support main streets, grow tourism activities, and foster civic pride. Alongside this increased investment, engagement with Stewart Street neighbourhood residents is an important step to ensure that change reflects the needs and aspirations of the community.

What does the Central Area Plan envision for the Stewart Street Neighbourhood?

Commercial Core Sub-Area: As the focal point of downtown, the Commercial Core supports a range of retail, office, entertainment, and service activities. Development in this sub-area should contribute to a vibrant, main street atmosphere and foster civic pride. Priorities include enhanced pedestrian connections and improved public facilities.

Transitional Use Sub-Area: These areas can accommodate a more diverse mix of activities than a typical, stable residential area. New uses like high and medium density residential, offices, studios, and home businesses will be accommodated, with due consideration to how they will impact existing neighbourhoods. Pedestrian linkages and natural amenities are among the redevelopment priorities.

Waterfront Commercial Sub-Area: The Waterfront area is meant to "celebrate arrival" by providing a gateway to the downtown. Landscaping, pedestrian connections, and high quality buildings will enhance views to the water and support a range of tourism activities.

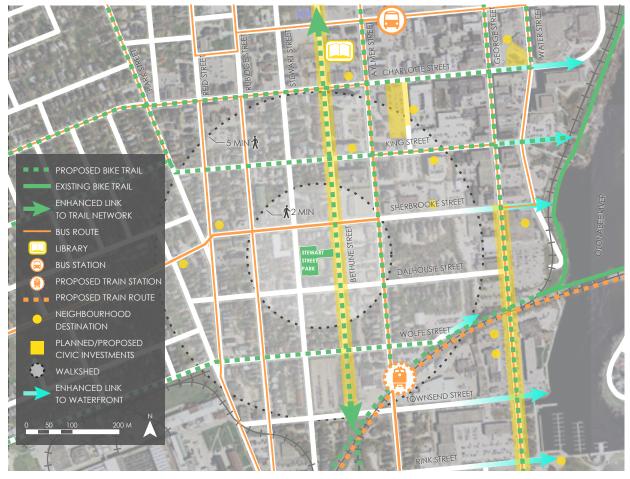
Industrial Conversion Sub-Area: A formerly industrial area, this sub-area designation is intended to provide a flexible policy environment for dynamic redevelopment opportunities.



Central Area Master Plan designations for the Stewart Street neighbourhood [Source: Ryerson Studio Team]

The Future of the Stewart Street Neighbourhood

Peterborough's plans and policies for the downtown offer a set of ambitious directions that are critical to the future health of the area. The Stewart Street neighbourhood sits at the centre of important linkages, public assets, and accessibility improvements that will drive future development. The following map visualises the existing and planned municipal investments in the neighbourhood.



Peterborough's existing, planned and proposed transportation networks and destinations. [Source: Ryerson Studio Team]

A fully realised policy vision for the Stewart Street neighbourhood includes:

- A surface transit network that connects to a major new GO Transit mobility hub
- Proposed bike routes that support both recreational and utilitarian travel for cyclists of all ability levels
- Sidewalks and curb cuts along all streets to improve the pedestrian experience
- New stormwater management infrastructure on Bethune Street to protect residents and property from future floods
- Enhanced connections to the Trans Canada Trail, the waterfront, and a new trail along the rail corridor
- Enhanced landscaping and new investment in public assets that foster civic pride
- Streetscape improvements along George Street that enhance safety for all road users and foster connections with the waterfront
- Improved access to important neighbourhood destinations

1.6 Upcoming Opportunities

Among the planned civic investments identified by the City of Peterborough are two major streetscape redevelopments that will influence the future revitalisation of the Stewart Street neighbourhood.

Bethune Street is slated for a full redevelopment as part of a flood mitigation plan. The entire corridor is set to be torn up from one property line to the other in order to install a stormwater management culvert below the road. This effectively creates a blank slate for transformative redevelopment at surface level.

On the eastern edge of the neighbourhood, traffic lanes on George Street are planned to be reconfigured to create a safer and more efficient route for all road users, while placemaking interventions will dramatically change the character and experience along the corridor.

In redesigning George and Bethune Streets, the City aims to promote active transportation through traffic calming and better infrastructure. Improved sidewalks and crossings will enhance mobility for pedestrians, while new cycling facilities will make it easier and safer to use a bike to travel to everyday destinations. While the plans for the future of George Street are already in development, the layout for Bethune Street has not yet been determined, which is why it has been selected to model the Stewart Street neighbourhood vision in this document through the Bethune Active Streetscape Plan.

The objective of this plan is to help residents embed their goals and aspirations within the plans established by the City of Peterborough. Given the projected investment in this area that is already beginning along George and Bethune Streets, it is crucial that all stakeholders have a common language to articulate their vision for the future of the Stewart Street neighbourhood.



Before (above) and after (rendering below) the planned George Street redevelopment . [Source: City of Peterborough]

2.1 The Stewart Street Neighbourhood Vision

The vision for the Stewart Street neighbourhood has emerged from collaborative consultation and engagement activities with Stewart Street neighbourhood residents. This vision is designed to be shared throughout any future public, private or non-profit investment in the Stewart Street neighbourhood, ensuring that residents' goals and desires are reflected in ongoing and future processes of neighbourhood change.

Neighbourhood Vision

The Stewart Street neighbourhood can become a model community for active transportation and civic engagement in Peterborough's central core. It should be beautiful and vibrant, providing safe and convenient routes to destinations both in the community and elsewhere throughout the city. Streets should be celebrated as safe and comfortable public spaces, and should support greenscapes and recreation as well as basic travel.

These streets should be designed to move people, regardless of age, ability, and mode of transportation; and with particular attention to the needs of children, older adults, and those with accessibility challenges. The streets should support Peterborough's vision for an integrated cycle network, building connections between the neighbourhood and the rest of the city.

This vision for the Stewart Street neighbourhood is rooted in the goals and aspirations articulated in the Stewart Street Neighbourhood Portrait, and reaffirmed through the Citizens' Forum in March 2016. The vision is supported by provincial and municipal policies and informed by extensive background research on best practices for active neighbourhood design.

This design toolkit will demonstrate how the vision can be integrated into all future plans for the Stewart Street Neighbourhood. Whether these plans emerge from within the community or from the City of Peterborough, they can and should reflect local residents' needs and desires for their streets and public spaces. Residents are encouraged to use this toolkit when working with City staff or other stakeholders to articulate their ultimate goals and aspirations for the neighbourhood.



Car-free "Play Streets" event. [Source: Stewart Street Active Neighbourhoods Project]

2.2 Guiding Principles for Public Realm Design



Accessibility

All plans must recognise the spectrum of abilities represented in those who spend time in and pass through the Stewart Street neighbourhood. These plans should incorporate supportive infrastructure in order to build a safe and inclusive neighbourhood for all people.



Child-Friendly Design

All plans should reflect the needs of the many children living in the Stewart Street neighbourhood, providing opportunities for safe, fun, interactive, and age-appropriate engagement with their streets and public spaces.



Greenscaping

All plans should recognise the importance of native vegetation and natural features in creating welcoming public spaces, building interactive landscapes, fostering physical and mental health for all residents, calming rapid traffic, managing stormwater, and offsetting the effects of climate change. Green and natural elements should be incorporated into all future plans for the neighbourhood.



Mobility and Connectivity

All plans should build into a greater network of streets and paths for vehicles, cyclists, transit users, mobility devices and pedestrians; creating connections between important neighbourhood destinations and to other places throughout the city. These plans should support all modes of transportation, and should provide opportunities for safe multimodal travel through the neighbourhood. The street atmosphere should be pleasant and supportive of travellers of all ages and abilities.



Placemaking

All plans should reflect community identity and participatory projects in the Stewart Street neighbourhood, highlighting local culture, heritage, and pride of place. New plans should provide opportunities for residents to showcase the stories of their neighbourhood.



Safe Neighbourhood

All plans must aim to create a sense of personal safety at all locations in the Stewart Street neighbourhood, facilitating play and mobility throughout the neighbourhood at all times. Public spaces should feel safe, welcoming, and comfortable for all who wish to use them.



Accessibility

All plans must recognise the spectrum of abilities represented in those who spend time in and pass through the Stewart Street neighbourhood. These plans should incorporate supportive infrastructure in order to build a safe and inclusive neighbourhood for all people.

All plans must be compliant with the design standards set in the Accessibility for Ontarians with Disabilities Act (AODA). This plan recognises the importance of all AODA standards, but the tools listed only highlight particular AODA requirements. The chosen strategies identify solutions to the most significant accessibility challenges in the Stewart Street neighbourhood.



Tactile pavers in Japan. [Source: Lachlan Hardy]

Tools for Accessible Design

Inclusive pathways

- Smooth, level, slip-resistant surfaces
- Tactile and tonal guides for those with visual impairments
- Connection to all significant destinations
- Clear distinction between roads and cycle paths

Inclusive intersections

- Curb cuts at all corners
- Tactile and high-contrast sidewalk edge surfaces for those with visual impairments
- Auditory signals at signalised intersections

Rest areas

- Frequent benches and shaded spots
- Located along routes, at transit stops, and common destinations

Legible environment

- Clear, AODA compatible signage
- Consistent placement of visual cues and street
 amenities
- Distinguishable landmarks for wayfinding
- Helps all users orient themselves in space

Multi-sensory design

- Features that incorporate sounds and smells for nonvisual orientation
- Examples include aromatic trees and flowers, water features



Child-Friendly Design

All plans should reflect the needs of the many children living in the Stewart Street neighbourhood, providing opportunities for safe, fun, interactive, and age-appropriate engagement with their streets and public spaces.

The design tools focus not only on safety for children through measures such as traffic calming, but also on educational and recreational stimulation for children throughout the street. These strategies can help them to learn about local nature, culture and heritage, and can help foster their independence as they learn to recognise landmarks and navigate their neighbourhood.



Child-friendly streetscape in Boulder, Colorado. [Source: MIG Inc.]

Tools for Child-Friendly Design

Safe sidewalks and crossings

- Wide sidewalks
- Plant buffers between sidewalks and roads
- Painted crosswalks
- Frequent crosswalks

Calm traffic

- Traffic-calming measures like street trees and curb bumpouts
- Street murals
- Clear signage for school, playground, library zones

Child-friendly landmarks

- At appropriate heights for various ages
- Colourful
- Words and illustrative images
- Marking routes to children's destinations

Playful streetscapes and design

- Creative painted mural crosswalks
- Multi-level landscapes to facilitate scrambling
- Small playground elements along sidewalks

Educational design

- Interactive signage for natural and community-built features, e.g. the community garden
- Access to natural environment
- Local history taught through art in the streetscape



Greenscaping

All plans should recognise the importance of native vegetation and natural features in creating welcoming public spaces, building interactive landscapes, fostering physical and mental health for all residents, calming rapid traffic, managing stormwater, and offsetting the effects of climate change. Green and natural elements should be incorporated into all future plans for the neighbourhood.



Greenscaping and rain gardens. [Source: Environmental Protection Agency]

Design Tools for Greenscaping

Green stormwater infrastructure

- Filters and cleans rainwater as it returns to the ground
- Cools the area in hot weather
- Examples include rain gardens, bioswales

Green sidewalks and street trees

- Large street trees create a narrowing illusion to help to calm traffic
- Green sidewalks to create buffer zones between sidewalk and road
- Tree canopy provides shade and cooling in hot weather, wind protection in cold weather

Native vegetation

- Requires minimal watering and maintenance
- Helps maintain and restore local ecosystems and small habitats
- Supportive environment for birds, bees, butterflies, and other wildlife

Edible landscapes

- Creative urban strategy toward healthy, sustainable foods
- Interest and diversity in landscape
- Planted away from accessible pathways so falling fruit does not obstruct travel



Mobility and Connectivity

All plans should build into a greater network of streets and paths for vehicles, cyclists, transit users, mobility devices and pedestrians; creating connections between important neighbourhood destinations and to other places throughout the city. These plans should support all modes of transportation, and should provide opportunities for safe multi-modal travel through the neighbourhood. The street atmosphere should be pleasant and supportive of travellers of all ages and abilities.



A complete street [Source: New York City Department of Transportation]

Design Tools for Mobility and Connectivity

Streets for everyone

- Streets designed for equal use by pedestrians and cyclists alongside drivers
- Traffic-calming measures facilitate safe travel

Cycle infrastructure

- Network connects to important destinations and other cycle paths and trails
- Separation from road and pedestrians where possible
- Space for cyclists of all skill levels
- Frequent and well-lit bike parking racks and stands

Pedestrian infrastructure

- Formal sidewalks on all streets
- Street furniture such as benches, garbage, and recycling receptacles; lighting on all major routes
- Stop signs, crosswalks, and pedestrian islands integrated more frequently
- Water bowls and waste receptacles built into sidewalk for dog-walkers to use

Facilitation of multi-modal travel

- Residents encouraged to use a mix of convenient travel modes
- Crosswalks, rest areas, and bike parking located at transit stops
- Cycle routes connected to key transit terminals
- Transit access directed to major neighbourhood hubs



Placemaking

All plans should reflect community identity and participatory projects in the Stewart Street neighbourhood, highlighting local culture, heritage, and pride of place. New plans should provide opportunities for residents to showcase the stories of their neighbourhood.

This can be achieved through collaborative public art or other projects to continue promoting the Stewart Street neighbourhood's distinct identity among communities in Peterborough.



Community members paint a crosswalk in Mt. Pleasant, Michigan. [Source: Liveability]

Design Tools for Placemaking

Community participation

- Creation of public art projects and community gardens
- Examples include street murals, painted intersections, art pieces woven into chain-link fencing
- Formation of multiple local groups to lead projects and programs

Street amenities

- Street furniture turns streets into public spaces
- Examples include benches, garbage, recycling and dog waste receptacles, lighting, food and water bowls for dogs
- Furniture can be designed to showcase neighbourhood heritage and identity

Neighbourhood gateways

- To welcome visitors into the Stewart Street neighbourhood
- Located at key neighbourhood entry points
- Examples include signage, murals, art pieces

Signage and landmarking

- To identify and direct people toward places of local significance
- Geared toward all age groups

Heritage commemoration

- Integrates local history into the landscape
- In heritage plaques, street signage, park and playground elements, public art pieces, street amenity design
- Examples include rail heritage, industrial heritage, water features and natural heritage



Safe Neighbourhood

All plans must aim to create a sense of personal safety at all locations in the Stewart Street neighbourhood, facilitating play and mobility throughout the neighbourhood at all times. Public spaces should feel safe, welcoming, and comfortable for all who wish to use them.



A well-lit bus shelter in Minneapolis, Minnesota [Source: Reid Parkinson]

Design Tools for Safe Neighbourhoods

Lighting

- Should line all neighbourhood streets
- Brightens parks and public spaces
- Priority for more secluded areas

Visibility

- Public space designs ensure clear sightlines
- Trees and other elements do not create hidden corners

Programming

- New features can activate isolated public spaces
- Parks and public spaces integrate diverse elements to attract activity at different times of day

Durability

- Materials of new elements are durable and built to last
- Graffiti-resistant coating used on some elements while welcoming art on others

Maintenance

- Park elements, street furniture, and lighting maintained by City staff
- Residents must be familiar with City reporting channels for maintenance issues
- Plants and grassroots community improvement projects maintained by resident organisations

Designated intent for spaces

- Clear distinction between public and private spaces
- Identification of parks and other public spaces
- Users should know what to expect when entering a new place
- Examples include the use of signage, natural materials

Partnerships

- Residents encouraged to build partnerships with external organisations
- Examples include City councillors, non-profit organisations, Peterborough Police Service

LOCAL PRIORITIES FOR DESIGN INTERVENTION

3. LOCAL PRIORITIES FOR DESIGN INTERVENTION

Stewart Street area residents have consistently identified particular locations in need of redevelopment throughout their neighbourhood. These locations are likely to see renewed investment in the coming years, either in fulfillment of Peterborough's municipal policies, or through grassroots initiatives by Stewart Street neighbourhood residents. This plan identifies seven priority locations, and offers high-level suggestions as to how the Stewart Street neighbourhood design toolkit might be applied to future plans for their redevelopment.



Priority locations for redevelopment. [Source: Ryerson Studio Team]

Priority Locations

Sherbrooke Street

As an arterial road designed to move cars quickly into the downtown, Sherbrooke Street should be redesigned to better serve the residential and community uses along this stretch of the corridor. Sidewalk improvements, street furniture, greenscaping, and traffic calming measures could transform the right-of-way to encourage travel by foot, bike, and transit while enhancing safety for all road users.

Sherbrooke Intersection at Reid Street and Park Street

This multi-directional intersection should be redesigned to minimise conflict between drivers and other road users, and manage the fast-moving traffic along the western edge of the neighbourhood. The intersection would benefit from signage, traffic calming, and crosswalk improvements that would highlight its use by pedestrians, and enhance walkability for users of all ages and abilities. There is opportunity through placemaking initiatives to signal to drivers that they are passing through a residential community space.

Stewart Street Park Zone

Stewart Street Park is an important social space at the centre of the community. Intersections and corridors around the park should be redesigned to slow vehicle traffic and signal to drivers that children are nearby. Design interventions that allow the park to spill out into the surrounding area could build a

3. LOCAL PRIORITIES FOR DESIGN INTERVENTION

unique neighbourhood character, while enhanced pathways within and through the park could support accessibility and connectivity for residents and visitors.

Dalhousie Street School Route

Neighbourhood children walk along Dalhousie Street every day to get to school. This corridor should be transformed to reclaim the space for children. Improved sidewalks, intersection enhancements, traffic calming, public art, and interactive elements can bring play into the street, let drivers know that children are nearby, and increase children's independence by creating a safe walking and cycling route.

Bethune Street

Bethune Street is both an important cycling route and a corridor in need of significant repair. This corridor should be transformed to improve the travel experience for pedestrians and cyclists, and to animate underutilised spaces to ensure residents feel safe. Greenscaping and stormwater management strategies can support a greener, safer, and healthier neighbourhood for all. New public spaces and assets can build neighbourhood character and create opportunities for enhanced social connectivity.

Vacant Spaces

Vacant and underused former industrial spaces are both a safety concern and an inefficient use of land. These sites can be transformed into new public spaces that draw frequent visitors and activity, offer recreation and social opportunities for

residents, and catalyse future development and investment in the neighbourhood.

George Street

George Street is currently the site of commercial uses that are important to area residents. A new streetscape design that calms traffic, improves intersection safety, and supports active transportation with elements like crosswalks will help connect the neighbourhood with the downtown core, support local businesses, and increase access to Peterborough's waterfront.

Applying the Design Toolkit

The seven priority areas listed are likely to see investment in the coming years. Some, like George Street, are subject to municipal plans that forecast imminent redevelopment as part of a downtown strategy. Others, like the Dalhousie Street School Route, might best be undertaken by residents with small interventions achieved through community-based collaboration. The six guiding principles for public realm design can and should be applied to any of these redevelopments, either by neighbourhood residents themselves, or by asking that municipal councillors and staff consider each of these principles as they create and revise their plans.

4.1 Introduction

The Bethune Active Streetscape Plan offers a vision for active transportation and public realm design along the Bethune Street corridor. The plan addresses Bethune Street between Townsend Street to the south and King Street to the north, while recognising that any proposed interventions may be extended north along the full length of Bethune Street slated for redevelopment. The Bethune Active Streetscape Plan presents comprehensive design proposals for three sites along the Bethune corridor.

Sites for Proposed Interventions

The three sites addressed in this Plan present potential to catalyse a larger revitalisation of the Stewart Street neighbourhood. The Bethune Active Streetscape Plan proposes:

- 1. A transformative new design for Bethune Street;
- 2. Specific enhancements at Stewart Street Park, and;
- 3. A dynamic new public space at the south end of Bethune Street.

Bethune Street has been selected as the focal point of this Plan in recognition of its imminent redevelopment. This presents an unprecedented opportunity to transform Bethune Street to reflect the City's policy vision for the Central Area, achieve active transportation goals, and highlight and enhance the community character of the Stewart Street neighbourhood. Given its proximity to the Bethune Street redevelopment, and its vital role as a social and recreational centre for the neighbourhood, this Plan also offers a comprehensive proposal for the growth and extension of Stewart Street Park.

Each intervention that follows is inspired by the needs, desires, and creative ideas that emerged in collaboration with residents of the Stewart Street neighbourhood. The six guiding principles for the neighbourhood provide direction and justification for the proposed design elements.



Sites for proposed intervention. [Source: Ryerson Studio Team]

Guiding Principles



BETHUNE STREET

BETHUNE STREET

4.2

Context

Residents have identified Bethune Street as a challenging corridor where they often feel uncomfortable and unsafe. Bethune's current design is conducive to illicit activity due to its inadequate lighting and lack of eyes on the street. Other challenges include missing and damaged sidewalks, insufficient seating, and poor maintenance. Bethune Street also lacks cycling infrastructure, despite its heavy use by cyclists. While the street enjoys access to Stewart Street Park, there is currently little to indicate the park's entrance to those passing by.

The redevelopment of Bethune Street presents an opportunity to redesign the street to better meet the guiding principles of public realm design for the Stewart Street neighbourhood.

What We Heard

Slow Traffic: Residents have been concerned with vehicle speeds along Bethune Street and disregard for some stop signs in the area. There is interest in modest traffic-calming interventions and intersection improvements that enhance safety for pedestrians.

More Vegetation: Many residents have indicated a desire for green space, rain gardens, and trees within the streetscape, so long as these features are properly maintained. Ideas discussed include native vegetation, broad-leafed species, fruit trees, and vegetable gardens.

Provide for Pedestrians: Residents have noted that Bethune Street would benefit from benches, waste receptacles, and a neighbourhood watch group. Buffers should be provided between the road and adjacent sidewalks. Sidewalks should be wide and level to accommodate users of all abilities, as current conditions force some residents to use the roadway.

Accommodate Cyclists: Residents are in favour of dedicated cycling infrastructure. Protected lanes would encourage more frequent cycling in the neighbourhood – especially among children – and would attract those who currently bike on the sidewalk due to safety concerns. Residents wish to see cycling infrastructure along Bethune Street that is well integrated with trails to the north, east, west and eventually south of the neighbourhood.



Current Bethune Street. [Source: Google Street View]

The Vision for Bethune Street

The Bethune Active Streetscape Plan envisions Bethune Street as a green linear park in the centre of the Stewart Street neighbourhood. The Bethune Street Linear Park could run adjacent to a calm, residential Bethune Street. Together, the park and street would facilitate safe and efficient travel for all users. The Linear Park and the two-way bike path at its centre would serve as a central piece in Peterborough's cycle network, tying together the Trans Canada Trail, the Rotary Greenway Trail, and proposed future trails south of the corridor. Street amenities, placemaking landmarks, and gateways to central public spaces would bring life to Bethune Street, enhancing the pedestrian experience and local pride of place.



The Bethune Street Linear Park. [Source: Ryerson Studio Team]



The proposed Bethune Street cycle trail serves as an important connection within Peterborough's existing and proposed cycle network. [Source: Ryerson Studio Team]

BETHUNE STREET

BETHUNE STREET

Major Elements of the Bethune Street Redesign

1) The Bethune Street Linear Park

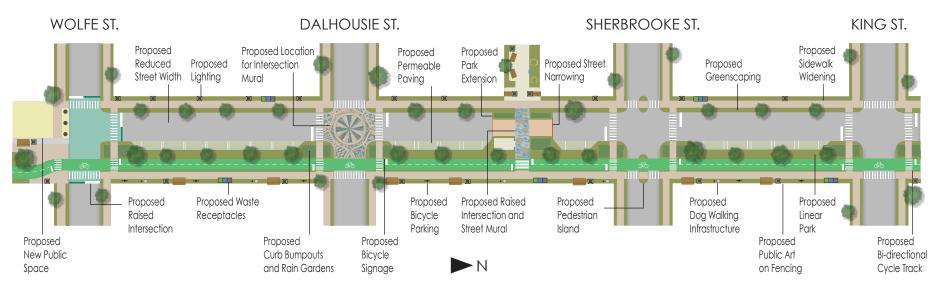
Bethune Street could be redesigned as a linear park – a beautiful, tree-lined stretch that serves cyclists and pedestrians, while vehicles travel along the west side of Bethune Street. The Bethune Street Linear Park would run along the east side of the street and would feature a protected cycle trail. Both sides of the street would benefit from wider sidewalks, street furniture, and improved landscaping. The added vegetation would mitigate pollution and stormwater while improving the street's appearance and attracting constant activity that could deter illicit behaviour. The Bethune Street Linear Park would enhance the appearance and pedestrian experience along this central neighbourhood corridor.

2) Redesigned Intersections

Improvements to intersections along Bethune Street would enhance safety by slowing vehicles, reducing crossing distances, and increasing pedestrian and cyclist visibility.

3) A Gateway to Stewart Street Park

A landmark gateway would serve to extend Stewart Street Park beyond its boundaries, increasing awareness of this children's zone within a residential neighbourhood. Proposed features include an extension of the linear park into Bethune Street, a raised and painted crosswalk, street narrowing to a single lane at the park entrance, new signage, street furniture, additional vegetation, and public art.



The Bethune Street redesign. [Source: Ryerson Studio Team]

BETHUNE STREET

1) The Bethune Street Linear Park

SEPARATED BICYCLE TRAIL



A dedicated, protected bi-directional cycle trail would run through the linear park, connecting cyclists to Peterborough's existing and proposed trail network. This would reduce conflicts with vehicles, serve users of all abilities, bring activity to Bethune Street, and provide space for those who would otherwise ride on the sidewalk. Signage would warn cyclists to take extra care when crossing at intersections.

REDUCED STREET WIDTH (🛺 🌆



The street would be reduced to only the required width for two-way vehicle traffic and street parking, which would allow additional space to be dedicated to sidewalks, cyclina infrastructure, and greenery. Narrower streets would facilitate pedestrian and cyclist crossings, and encourage drivers to slow down.

SIDEWALKS & STREETSCAPE AMENITIES 🚮 🕮 🐼 🥿



Wider sidewalks would accommodate pedestrians with children, pets, strollers, and personal mobility devices. Benches would offer places to rest, waste receptacles would contribute to a cleaner environment, and bike racks would provide cyclists with a place to park. Pet infrastructure, including built-in food and water bowls, would serve residents walking their dogs.



The Bethune Street Linear Park. [Source: Ryerson Studio Team]



Greenscaping with grass, trees, and other natural features would enhance the look and feel of Bethune Street and provide a green buffer between cars and pedestrians. Trees provide shade, habitat, and an attractive environment while reducing wind, heat, noise, air pollution, and stormwater runoff. Trees would also increase safety by making the roadway appear narrower, thus slowing vehicle traffic.



Rain gardens would capture and treat stormwater runoff, provide habitats for urban wildlife, and help mitigate air pollution. While some maintenance would be required, this could be mitigated by using species native to the area.



Art contributes to neighbourhood beauty and identity, boosting civic pride. Installing art along the corridor – perhaps by brightening any chain link fences - would provide an opportunity for community collaboration and would encourage youth participation in local placemaking.

ADDITIONAL LIGHTING



Generous, evenly-distributed lighting would provide much-needed visibility and a sense of safety at night for all users. The addition of creative and beautiful lighting could contribute to the identity of the neighbourhood

PERMEABLE PARKING SURFACES



Permeable pavement could be used instead of standard asphalt for onstreet vehicle parking spaces. Such surfaces would include cement cells with open pores to allow grass to grow through, thus creating water drainage opportunities while extending the green features of the linear park.

2) Redesigned Intersections

MULTI-USE CYCLIST AND PEDESTRIAN CROSSINGS



Linear park intersections would feature a clearly-marked parallel pedestrian and cyclist crossing. Green paint would be used to mark the cyclist crossing while white zebra stripes would designate the pedestrian crosswalk.

CROSSWALKS 🔏 🎹



North-south pedestrian crossings along Bethune Street would use zebra markings and signage to improve safety for pedestrians.

NARROW TURNING RADII



Intersection design would reduce the current turning radius for cars, encouraging them to slow their turns and watch for pedestrians and cyclists.

CURB BUMP-OUTS



Roadways would be narrowed at the approach to each intersection, which would encourage cars to slow down while also providing pedestrians with a shorter distance to cross.

INTERSECTION MURALS



Intersection murals are a creative way to enhance awareness of significant pedestrian crossings. The bright colours attract the attention of approaching cars and encourage them to slow down and watch for pedestrians.

PEDESTRIAN CENTRE ISLAND



Islands placed midway through arterial road crossings would offer refuge for pedestrians and cyclists crossing the street, reducing the amount of space in which pedestrians will be in conflict with vehicles, and serving as a traffic calming measure.

ENHANCED SIGNAGE FOR CYCLISTS

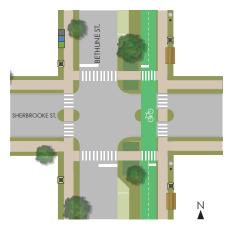


The inclusion of designated bike infrastructure along Bethune Street would necessitate improved signage at crossings to ensure cyclist awareness and safety.

Intersection Redesign Case Studies

The following case studies demonstrate how the design toolkit may be implemented at an intersection with an arterial road compared to an intersection with a local road.

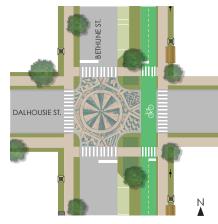
Case Study: Arterial Intersection - Bethune St. at Sherbrooke St.



Sherbrooke is an arterial street that passes through the neighbourhood. Pedestrians and cyclists should be made aware of fast traffic on this street, and protective safety features should be integrated. A future fourway stop should be considered here if increased traffic warrants it.

Cyclist and pedestrian crossing
 Crosswalks
 Narrow turning radii
 Pedestrian centre island
 Stop signs for cyclists

Case Study: Local Intersection - Bethune St. at Dalhousie Street



Dalhousie is a residential street that is a common route children use to get to school. Enhancements could be made to slow vehicles down and raise visibility and awareness of pedestrians crossing the street.

- 1. Cyclist and pedestrian crossing
- 2. Crosswalks
- 3. Narrow turning radii
- 4. Curb bump-outs
- 5. An intersection mural
- 6. Stop signs for cyclists

3) A Gateway to Stewart Street Park



The existing fence at the Bethune Street entrance to Stewart Street Park would be replaced with two-way seating, lighting, and additional vegetation forming a landmark gateway into the park. A paved path leading into the park would enhance accessibility; the path and entrance would be wide enough to accommodate personal mobility devices.

CURB EXTENSIONS



Curb extensions would be used on both sides of the street to narrow the roadway and extend the concept of the park out into the street, raising awareness that this is a space for children. Space on the curb extensions could be used for rain gardens, bike racks, and public art.



A raised crosswalk with special paving would improve the visibility of this new mid-block crossing and encourage drivers to pay special attention in this area. Signage and pavement markings could be used to inform drivers of a pedestrian crossing. In lieu of special paving on the crosswalk, residents might choose to paint a mural.

NARROWED STREET



Bethune Street would be narrowed to one lane at the park entrance, forcing cars to yield to one another and pass through one at a time. This would enhance safety for pedestrians and especially for children. While a minor inconvenience for drivers, this significant change in street character would serve to slow traffic and increase driver attention at this mid-block crossing.



Creative, welcoming signage could be used to identify the park and its features, for instance new species of fruit trees, or the community garden. Plagues and markers could contribute to local knowledge about the area's past and its recent history of grassroots community engagement.



Stewart Street Park Gateway on Bethune Street. [Source: Ryerson Studio Team]

BETHUNE STREET

BETHUNE STREET

Bethune Street: The Bigger Picture

This plan articulates a vision for Bethune Street that would see it transform into a green corridor that enhances safety and connectivity for pedestrians and cyclists. This upcoming public investment is an opportunity to catalyse new development and help realise the full potential of the Stewart Street neighbourhood, which is well situated in close proximity to the downtown and waterfront areas, as well as businesses that serve everyday needs of residents. A transformative streetscape design for Bethune Street improves mobility and safety for all road users by providing dedicated space for all modes, slowing vehicular traffic, and creating safe crossings at intersections.

The proposed linear park would connect the neighbourhood to important civic assets like the local library, as well as existing and proposed trails and transit hubs. These new pathways could make it safe and convenient for residents to choose walking, cycling, and transit when accessing commerce, services, jobs, and entertainment in downtown Peterborough. The street's existing importance for cyclists and pedestrians underscores the benefit of these proposed improvements. Importantly, Bethune Street serves as a spine for the Stewart Street neighbourhood, and as such its new design is well positioned to support future, community-focused redevelopment plans along Sherbrooke Street, the Dalhousie School Route, and in the Stewart Street Park Zone. The new design for Bethune Street offers a vision to transform the street from an underserved corridor to a valuable public space that enriches quality of life for residents and visitors.



Bethune Street cross-section. [Source: Ryerson Studio Team]

CONNECTING THE VISION TO POLICY

The **PROVINCIAL POLICY STATEMENT (PPS)** provides direction for planners on matters of provincial interest. The PPS supports land use decisions that increase the use of active transportation, support a mix of transportation choices, and promote recreation and access to park spaces. The new vision for Bethune Street helps to promote healthy, active communities by meeting the needs of pedestrians, providing amenities to foster social interaction, and enabling active transportation.

The **PLANNING ACT** requires all planning decisions conform to provincial plans like the **GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE.** The plan vision for Bethune Street conforms to the Growth Plan by providing connectivity among transportation modes, linking residents to nearby transit stops and stations, while encouraging cycling and walking.

The **ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA)** was written to promote accessible communities for all residents. The plan vision was developed in consideration of best practices for building accessible streets and public spaces. Particular attention has been given to accessibility along paths and at intersections, the use of design materials that create a legible environment for people with visual impairments, and the provision of street furniture that allows pedestrians to rest along corridors.

The **OFFICIAL PLAN (OP)** outlines a vision for the future of the City of Peterborough that is as interested in the social development of the community as its physical structure. The new vision for Bethune Street supports the OP goal of building complete communities that offer an inclusive range of transportation choices (Section 2.4.3.3). The plan helps implement the OP vision for its Commercial Core by enhancing pedestrian linkages and enhancing access to open areas (Section 4.3.2.2.2). It addresses the need to encourage increased use of transit, cycling, and pedestrian activity; and further supports the OP vision for its cycling network by connecting new bicycle routes to the Trans Canada Trail (Section 10.9.3.1.3, Section 2.1.6).

The **CENTRAL AREA MASTERPLAN** clarifies and complements the Official Plan policies for the municipality's downtown core. The plan vision for Bethune Street acknowledges that the Masterplan considers Bethune a priority corridor for enhancements (Chap. 9, Section 7). Its intent is to support the vision for the Transitional Uses Sub-Area designation by enhancing pedestrian linkages to the Commercial Core (Chap. 3).

The new design for Bethune Street is also consistent with the **SIDEWALK STRATEGIC PLAN**, which encourages the provision of sidewalks on both sides of public streets; and the **COMPREHENSIVE TRANSPORTATION PLAN**, which encourages the use of active transportation and identifies Bethune Street as a component of an Ultimate Cycling Network. It responds to the **URBAN FOREST STRATEGIC PLAN** to create corridors of trees that contribute to Peterborough's overall urban canopy.

STEWART STREET PARK

STEWART STREET PARK

4.3

Context

Stewart Street Park is currently the main public space at the heart of the neighbourhood, where many residents bring their children to play, socialise, and maintain the recently created community garden. Grassroots efforts and teamwork between residents have established the park as a very special place and a reflection of shared community values.

Residents have identified possible improvements to the function and sense of personal safety within the park. Targeted interventions at Stewart Street Park could enhance its accessibility, safety, and character.

What We Heard

Pride: Residents feel proud of Stewart Street Park, as a place that they've helped to build for the benefit of the community. Residents came together to plant and maintain their community garden, and successfully fundraised to build a playground for neighbourhood children.

An Accessible Path: There is currently no formal path through the park, which presents serious challenges for those using various mobility devices, and also impedes caregivers with strollers or wagons. Residents have expressed the need for a wide and smooth accessible path compatible with AODA standards, as well as the removal of barriers at park entrances.

An Increased Sense of Safety: Residents have shown concern over illicit activities that occur after dark. There is a desire to create a sense of safety at all times and to avoid adding park elements that could enable illicit activity.

More Amenities: Current playground infrastructure is very popular with neighbourhood children, who would like to see more amenities for climbing, scrambling, and spinning.



Current Bethune Street Entrance to Stewart Street Park. [Source: Google Street View]

STEWART STREET PARK

The Vision for Stewart Street Park

The Bethune Active Streetscape Plan envisions Stewart Street Park as a safe, central place to play. The plan proposes interventions that highlight the park's important role at the heart of the community. The park zone could extend past park boundaries into the surrounding residential community through a landmark gateway intersection on its Bethune Street side. The park itself could feature accessible paths and playground amenities for all ages and abilities, improved seating and playscapes, and elements that call out the grassroots stories behind the park's creation.



The Stewart Street Park gateway. [Source: Ryerson Studio Team]

STEWART STREET PARK

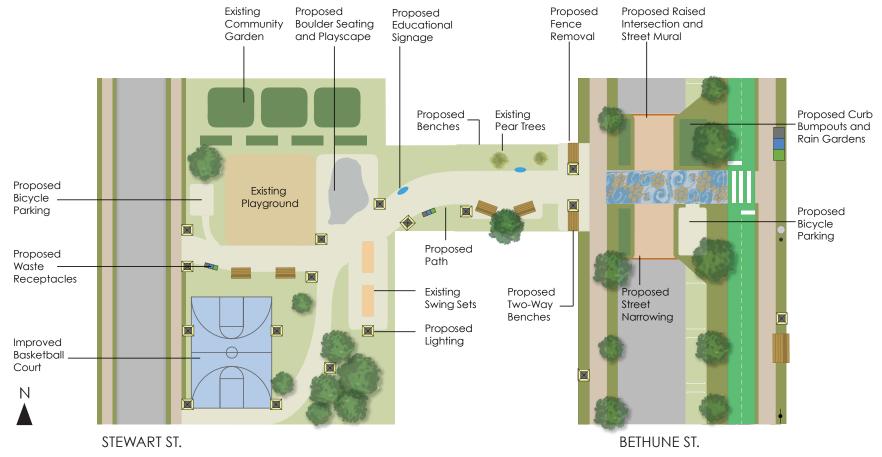
Major Elements of the Stewart Street Park Redesign

1) A Bethune Street Gateway

A landmark Bethune Street gateway would serve to extend the park beyond its boundaries, increasing awareness of this children's zone within a residential neighbourhood. Proposed features include an extension of greenscaping into Bethune Street, a raised and painted crosswalk, a street narrowing to a single lane at the park entrance, new signage, street furniture, additional vegetation, and public art.

2) Additional Park Improvements

Additional improvements throughout the park would include an accessible path through the park and at playground elements, increased seating and lighting, updated waste receptacles, wider park entrances, bicycle parking, educational signage, a boulder seating structure and playscape, and an improved basketball court.



The Stewart Street Park redesign. [Source: Ryerson Studio Team]

1) A Bethune Street Gateway

ADDITIONAL LIGHTING



Significant additions in lighting would improve visibility on the Bethune Street side of the park and facilitate a sense of personal security. The addition of creative and beautiful lighting could contribute to the identity of the park and neighbourhood.

EDIBLE LANDSCAPING



Edible vegetation would add desired green elements to the park while also creating habitats for bees, butterflies, and other park life. This type of landscaping could foster engagement, participation, and learning for children and other park visitors.



There would be backed and two-way benches available at the park gateway, oriented to draw people into the park and encourage people to occupy this space for quieter activities. Seating design could reflect the community's local industrial heritage.



A smooth, wide accessible path would promote the use of the park by visitors of all abilities, fostering improved access into and out of the park at Bethune Street.



Creative, welcoming signage could be used to identify the park and its features, such as new species of fruit trees, or the community garden. Plaques and markers could contribute to local knowledge about the area's past and its recent history of grassroots community engagement.



The Stewart Street Park gateway. [Source: Ryerson Studio Team]

STEWART STREET PARK

STEWART STREET PARK

2) Additional Park Improvements

ACCESSIBLE PLAYGROUND



Softer, child-friendly, accessible surfaces that provide access to playaround elements would facilitate enjoyment for children and caregivers with more limited mobility.

ACCESSIBLE PATH

An accessible, paved path would provide access through all entrances of the park and welcome people of all abilities.

BOULDER SEATING AND PLAYSCAPE



A landscaped boulder area could provide informal but comfortable seating for caregivers overlooking the playaround, while also providing another popular element on which children of all ages could scramble and play.



Backed benches throughout the playground would provide a place for caregivers to rest and watch their children play, contributing to the sense of safety and engagement at the park. Seating design could reflect the community's local industrial heritage.



Educational signage about the community garden and park could be added where appropriate, and designed by community members to communicate what this park means to them.



Bicycle parking would be located in a visible, illuminated place, and would encourage residents and especially children to use their bikes to travel to the park.

ADDITIONAL LIGHTING



Significant additions in lighting would improve visibility throughout the park and facilitate a sense of personal security. The addition of creative and beautiful lighting could contribute to the identity of the park and neighbourhood.

WASTE RECEPTACLES



Updated waste receptacles would be placed throughout the park, and maintained often to contribute to the cleanliness and attractiveness of the park.

WIDER ENTRANCES

Entrances to the park would be widened to meet AODA standards and would improve access for people of all abilities.

IMPROVED BASKETBALL COURT



The existing basketball court would be enhanced through a full repaying and painting, and the installation of adjustable nets for the benefit of players of all heights and levels of mobility.

STEWART STREET PARK

Stewart Street Park: The Bigger Picture

This plan articulates a vision for Stewart Street Park that will reinforce its role as a neighbourhood focal point and provide a safe, fun, environmentally-friendly space for people of all ages. Investment in new pathways through the park is an important opportunity to ensure the park is fully accessible to people of all abilities. These pathways also enhance mobility through the neighbourhood, allowing residents to connect to the newly designed pedestrian and cycling routes along Bethune Street, as well as nearby transit stops. Enhancing park amenities and lighting can improve user experience and help ensure the park is a safe space at all times of the day and night. The proposed park improvements are an important first step that can help catalyse future community-focused redevelopment at intersections in the Park Zone and along the Sherbrooke Corridor.



CONNECTING THE VISION TO POLICY

The **PROVINCIAL POLICY STATEMENT (PPS)** provides direction for planners on matters of provincial interest. The PPS supports the provision of parks as a means to create space for recreation and foster social ties within communities. This plan is consistent with the PPS vision for healthy, active communities by offering design interventions that enhance the social and recreational value of the park while improving public safety.

The **PLANNING ACT** requires all planning decisions conform to provincial plans like the **GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE.** The plan vision for Stewart Street Park conforms to the Growth Plan by providing high quality public space that supports vibrant neighbourhoods.

The **ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT** (AODA) was written to promote accessible communities for all residents. The plan vision was developed in consideration of best practices for building accessible streets and public spaces. In particular, pathways have been proposed to ensure that children and caregivers who use mobility devices can access all of the park's amenities, as well as travel safely through the park from Stewart Street to Bethune Street.

The **OFFICIAL PLAN** (OP) outlines a vision for the future of the City of Peterborough that is as interested in the social development of the community as its physical structure. By offering targeted enhancements to Stewart Street Park, the plan helps to address the OP goal to provide for the equitable allocation of recreational opportunities to residents (Section 2.1.2). Consistent with the OP definition for Neighbourhood Parks, the new designs for Stewart Street Park help to beautify the neighbourhood, increase opportunities for leisure activities, and improve connectivity within the community (Section 6.4.3).

The Stewart Street Park gateway. [Source: Ryerson Studio Team]

BETHUNE STREET SOUTH END

BETHUNE STREET SOUTH END

4.4

Context

The south end of Bethune Street, located between Wolfe and Townsend Streets, is notably underdeveloped. It offers none of the elements of a modern streetscape, with a lack of lighting, road paving, and sidewalk infrastructure. The road is currently lined with trees that create a sense of seclusion, which is compounded by the lack of active uses fronting onto the block. The area is prone to illicit activity and is currently identified by residents as a place to avoid.

The redevelopment of Bethune Street presents an opportunity to redesign this block as a safe, welcoming, shared public space that neighbourhood residents can claim as their own.

What We Heard

An Increased Sense of Safety: Residents have identified this block as a major problem area. They have expressed concerns over its uninviting nature, its poor condition, and the secluded space it provides for illicit activites. Residents have noted a need for sufficient lighting as part of any plans for future redevelopment here.

Block Vehicle Traffic: Residents have indicated that they are interested in developing a unique, vehicle-free public space here instead of a continuation of the Bethune Street roadway.

A Place for New Activities: Residents have expressed interest in the future of this public space as a park, an amphitheatre, a market stall space for crafts or food, and a skate park. There is particular enthusiasm for a water fountain or a splash pad.

Redevelop the General Electric Parking Lot: Residents have also discussed the future of the GE lot located immediately adjacent to this block of Bethune Street. While this plan proposes designs conducive to future development on the lot, there are currently roadblocks that limit the City of Peterborough from actively engaging with and investing in that underused space.



Current Bethune Street south end. [Source: Google Street View]

BETHUNE STREET SOUTH END

The Vision for Bethune Street's South End

The Bethune Active Streetscape Plan envisions Bethune Street's South End as a landmark gateway to the Bethune Street Linear Park. This new public space would reclaim the currently underused area as a zone for active transportation and recreation, connecting the new bike path on Bethune Street to a proposed railway bike trail, welcoming pedestrians along with their dogs, and creating a wide promenade where residents might come together in this multipurpose space. This bright, well-lit linear gateway could incorporate play through a colourful fountain pad and a skate park for older children in the neighbourhood.



The south end of Bethune Street. [Source: Ryerson Studio Team]

BETHUNE STREET SOUTH END

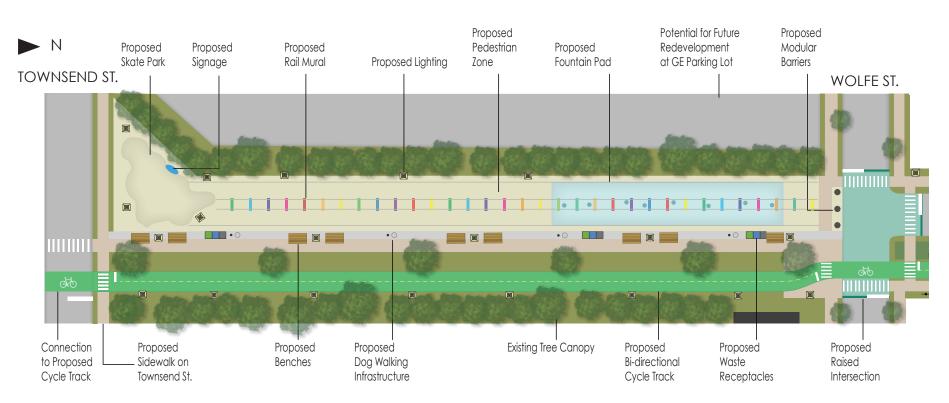
Major Elements of the Bethune Street South End Redesign

1) The Bethune Street South End Public Space

This linear public space could serve as a vibrant, active transportation gateway to the Bethune Street Linear Park. Proposals include significant lighting, amenities for pedestrians and dog-walkers, a continuous bike path, a fountain pad, a skate park, and an open promenade for public activities.

2) Wolfe Street and Townsend Street Entrances

The public space entrances at Wolfe and Townsend Streets could be designed to call attention to this new public space by using raised intersections, signage, and a painted lane for the bike path. Additional proposals include moveable barriers to signal a vehicle-free space, and sidewalks on both Wolfe and Townsend Streets to facilitate pedestrian access to the linear park.



The south end of Bethune Street redesign. [Source: Ryerson Studio Team]

BETHUNE STREET SOUTH END

1) The Bethune Street South End Public Space

WIDE SIDEWALKS AND STREETSCAPE AMENITIES



A wide sidewalk would run parallel to the bi-directional cycle trail on the east side of this space. The sidewalk would provide an accessible path for pedestrians, with a natural buffer separating foot and cycle traffic, and where dogs might walk. Benches would provide places for pedestrians to rest, bike racks would allow cyclists to stop in this space, and food and water bowls for dogs as well as waste receptacles would invite many users to this space.

A FOUNTAIN PAD



This much-requested water feature would serve as a flat, pedestrian space that would work as a fountain in summer months. A fountain pad could feature design elements that would reflect the neighbourhood's rail or industrial heritage and would draw activity into this space.

A SKATE PARK



Located in the southern end of the public space, a skate park could provide an activity for youth of all skill levels in the neighbourhood. The skate park could accommodate youth who may have outgrown the playground at Stewart Street Park. This sort of feature could draw activity throughout the day and evening.





An open promenade on the public space's west side could provide a versatile space for diverse programming, from food or craft fairs to concerts to food truck events. Frequent programmed activity in this space would draw users from within and outside the neighbourhood and create a vibrant, welcoming atmosphere.



The bi-directional trail would continue from further north on Bethune Street, crossing to the east side of the public space at the Wolfe Street intersection. This would provide an accessible dedicated space for cyclists of all ages and skill levels, and would connect to Peterborough's existing and proposed cycle network.

LIGHTING 😚 💯 🚳 👘

of the public space and the neighbourhood.

Lighting would be a central component of the plans for this public space, welcoming visitors by providing visibility, openness and a sense of personal safety. This would facilitate use of this space at all times of the day and night. The addition of creative and beautiful lighting could contribute to the identity



This plan recognises the GE parking lot as a potential future opportunity to facilitate more active and potentially community-focused uses. At present, the property is privately owned.



An open promenade in the south end. [Source: Ryerson Studio Team]

2) Wolfe Street and Townsend Street Entrances

ALL-WAY STOP WITH RAISED INTERSECTIONS

The interesections would each feature an all-way stop in order to slow traffic for those wishing to enter the public space. A raised intersection would provide pedestrians with a visible, safe connection to the public space.

MULTI-USE CYCLIST AND PEDESTRIAN CROSSING



Where the cycle trail crosses Wolfe Street, a clearly-marked parallel pedestrian and cyclist crossing would be provided. Green paint would be used to mark the cyclist crossing while white zebra stripes would designate the pedestrian crosswalk. There would be a clearly marked cycle trail shift over to the east side upon entrance into the public space.

CROSSWALKS



Pedestrian crossings at Wolfe Street and Townsend Street would use zebra markings and signage to improve safety for pedestrian crossing the intersecting streets.

GATEWAY WITH MOVEABLE BARRIERS



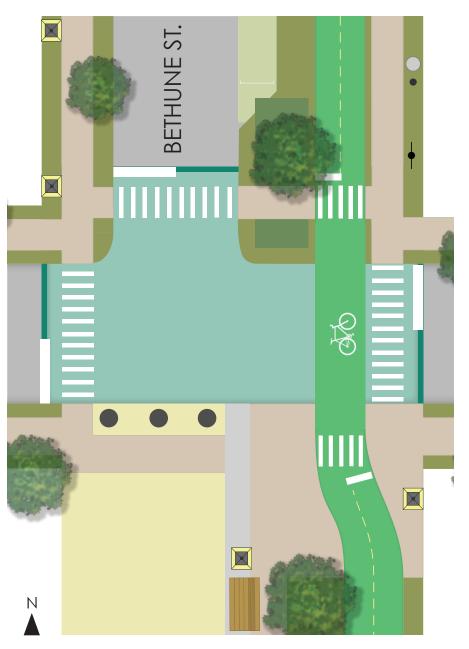
Both entrances to the public space would welcome pedestrians and cyclists, while barriers would prevent drivers from entering the space. Barriers should be moveable so that emergency vehicles can access the space, and to allow loading vehicles to enter for public events.

SIDEWALKS ON TOWNSEND STREET



A new sidewalk along Townsend Street would provide increased connectivity and facilitate entrance into the Bethune Street Linear Park from its south end.

BETHUNE STREET SOUTH END



South End gateway at Wolfe and Bethune Street. [Source: Ryerson Studio Team]

BETHUNE STREET SOUTH END

Bethune Street South End: The Bigger Picture

This plan recommends transforming the south end of Bethune Street into a dynamic new public space that serves residents and visitors. An active new neighbourhood amenity could achieve many of the redevelopment goals for this community. Increased programming and recreation space in the Stewart Street neighbourhood could help populate underused areas, thereby increasing eyes on the street and perceptions of safety. New community spaces can also make surrounding vacant and underused sites more attractive for new development, helping to catalyse industrial conversion south of the neighbourhood. Improvements to the south end of Bethune as a linear park gateway could better connect the existing active transportation corridor to proposed trails and to the waterfront area, and create a safe connection to the proposed new mobility hub.



South End Cross-Section. [Source: Ryerson Studio Team]

CONNECTING THE VISION TO POLICY

The **PROVINCIAL POLICY STATEMENT (PPS)** provides direction for planners on matters of provincial interest. By reclaiming Bethune Street as a public space, the plan vision helps promote healthy communities through fostering social interaction and community connectivity. Its design is consistent with directions in the PPS to promote healthy, active communities through spaces that are safe and well connected.

The **PLANNING ACT** requires all planning decisions conform to provincial plans like the **GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE**. The plan vision for the south end of Bethune Street conforms to the Growth Plan by providing high quality public space and encouraging the creation of new vibrant places, while supporting active transportation activities.

The **ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA)** was written to promote accessible communities for all residents. The plan vision was developed in consideration of best practices for building accessible streets and public spaces. Particular attention has been given to accessibility along paths and at intersections, the use of design materials that create a legible environment for people with visual impairments, and the provision of street furniture that allows pedestrians to rest along corridors.

The **OFFICIAL PLAN (OP)** outlines a vision for the future of the City of Peterborough that is as interested in the social development of the community as its physical structure. The new vision for the south end of Bethune Street supports the OP goal to provide for the equitable allocation of recreational opportunities (Section 2.1.2). The new Bethune Street public space conforms to the size restrictions of OP designated Neighbourhood Parks insofar as it forms part of a linear link to the proposed greenway along the Bethune Street corridor (Section 6.4.3).

The **CENTRAL AREA MASTERPLAN** clarifies and complements the Official Plan policies for the municipality's downtown core. The plan vision for Bethune Street acknowledges that the Masterplan considers Bethune a priority corridor for enhancements (Chap. 9, Section 7). Its intent is to support the vision for the Industrial Conversion Sub-Area designation by transforming and beautifying the area, thereby encouraging reinvestment and conversion to a dynamic range of new uses (Chap. 3).

The new design for Bethune Street is also consistent with the **SIDEWALK STRATEGIC PLAN**, which encourages the provision of sidewalks on both sides of public streets; and the **COMPREHENSIVE TRANSPORTATION PLAN**, which encourages the use of active transportation and identifies Bethune Street as a component of an Ultimate Cycling Network.

5. A MODEL ACTIVE NEIGHBOURHOOD FOR THE FUTURE

Stewart Street neighbourhood residents are uniquely positioned to advance a community-focused vision that champions an active, safe, and welcoming neighbourhood. Given the neighbourhood's location at the nexus of multiple transit routes, several proposed bike paths, and important pedestrian linkages, residents can be empowered to advocate for their neighbourhood vision, which is supported by the City's comprehensive plans for active transportation and development of the downtown core.

This plan distills extensive engagement with residents into a vision for the future of the neighbourhood, and extracts from this vision six guiding principles for public realm design. In the Bethune Active Streetscape Plan, these principles are applied to three focus sites along the length of the Bethune Street corridor. With the impending redevelopment of Bethune Street on the horizon, there is an opportunity for residents to align with municipal policies while promoting their own vision throughout the redevelopment process.

While the Bethune Street redevelopment may be a catalyst for a safer, vibrant, and more active corridor, it is only one component of achieving the broader neighbourhood change forecasted in this vision. The guiding principles establish the design toolkit that may be applied to other redevelopment opportunities and or grassroots intervention projects in the future. They can be used either to evaluate proposed plans from the City or to help advance resident-initiated proposals for the neighbourhood. With school routes, key intersections, important corridors, and community nodes identified, there are opportunities to weave this vision and the concepts in this plan into other key areas throughout the Stewart Street neighbourhood.

As a neighbourhood located on the cusp of the downtown core with active transportation opportunities and versatile development potential, the Stewart Street neighbourhood could develop into a model active neighbourhood that is a source of civic pride not only for local residents, but for the entire city of Peterborough.



The proposed fountain in Bethune's South End. [Source: Ryerson Studio Team]

Background Research

- ANC (Active Neighbourhoods Canada). (n.d.). Active Neighbourhoods Canada professional workshop in Peterborough transcribed notes. Available by request from Car Martin.
- ANC (Active Neighbourhoods Canada). (2015a). Project theory of change: Stewart Street Neighbourhood. Retrieved from <u>http://activeneighbourhoods.tcat.ca/wp-content/uploads/2015/05/ANC_Peterborough_TheoryofChange_V5.pdf.</u>
- ANC (Active Neighbourhoods Canada). (2015). Stewart St. Peterborough project [Poster]. Retrieved from http://activeneighbourhoods.tcat.ca/wp-content/uploads/2014/10/ANC_StudentPoster.pdf.
- ANC (Active Neighbourhoods Canada). (2016). Stewart Street Neighbourhood, Peterborough [Project website]. Retrieved from <u>http://activeneighbourhoods.tcat.ca/neighbourhoods/stewart-street-peterborough.</u>
- Bennington, M., & Salmon, B. (2014, October 4). How participatory planning empowers communities: 2014 Peterborough & the Kawarthas Cycling Summit [Presentation materials]. Retrieved from <u>http://</u> <u>activeneighbourhoods.tcat.ca/wp-content/uploads/2014/12/ANC-Presentation-for-Peterborough-Cycling-Summit.pdf.</u>
- Martin, C., Bennington, M., Salmon, B., Nasca, T., Sauve, S., Macdonald, C., & Wiryomartono, K. (2015). Portrait: Stewart Street Neighbourhood, Peterborough. Available from Active Neighbourhoods Canada at http://activeneighbourhoods.tcat.ca/wp-content/uploads/2015/11/PBO-portrait-web.pdf.
- Peterborough County-City Health Unit, GreenUp, & City of Peterborough. (2014). 2014 Peterborough City and County active transportation & health indicators report. Retrieved from <u>http://www.peterborough.ca/Assets/</u> <u>City+Assets/TDM/Documents/indicators+report.pdf.</u>

Peterborough Project Coordinating Committee & Pole, N. (n.d.). ANC Peterborough critical pathway [Diagram]. Retrieved from <u>http://activeneighbourhoods.tcat.ca/wp-content/uploads/2014/10/</u> <u>ANCPeterboroughCriticalPathway-01.png.</u>

- TCAT (Toronto Centre for Active Transportation). (n.d.a). Active neighbourhoods Canada. Retrieved from http://activeneighbourhoods.tcat.ca/.
- TCAT (Toronto Centre for Active Transportation). (n.d.b). Peterborough street data survey [Excel sheet]. Available by request from Car Martin.
- TCAT (Toronto Centre for Active Transportation). (2015, September 15). Door-to-door surveying, harvest party, and Stewart Street play street survey results. Retrieved by request from Car Martin.
- TISC (Transportation Information Steering Committee). (2014, May). Transportation Tomorrow 2011 survey area summary: City of Peterborough. Retrieved from <u>http://www.dmg.utoronto.ca/</u> <u>transportationtomorrowsurvey/2011/regional_travel_summaries_2011.html#peterborough_city.</u>

Case Studies and Best Practices

- Active Transportation Alliance. (n.d.). Complete streets complete networks: A manual for the design of active transportation. Retrieved from http://activetransportationpolicy.org/Design.
- Adriazola-Steil, C., Li, W., & Welle, C. (2015). Designing safer cities for children [blog article]. Retrieved from http://thecityfix.com/blog/urban-design-street-road-safety-children-cities-claudia-adriazola-steil-wei-li-ben-welle/.
- Bruntlett, C. (2014). 12 ways to make cities more child-friendly [blog article]. Retrieved from <u>http://spacing.ca/</u> <u>national/2014/03/03/twelve-ways-can-make-cities-child-friendly/.</u>
- City of Boston. (2013). Boston complete streets: Design guidelines 2013. Retrieved from <u>http://bostoncompletestreets.</u> <u>org.</u>
- City & County of San Francisco. (2015a). Crosswalks. Retrieved from <u>http://www.sfbetterstreets.org/find-project-types/pedestrian-safety-and-traffic-calming/crosswalks.</u>

- City of Portland ONI (Office of Neighborhood Involvement). (2015, Spring). Crime prevention through environmental design. Retrieved from <u>https://www.portlandoregon.gov/oni/article/320548.</u>
- City of Seattle. (n.d.) Seattle right-of-way improvements manual. Retrieved from <u>http://www.seattle.gov/</u> <u>transportation/rowmanual/manual/table_of_contents.asp.</u>
- City of Toronto. (n.d.). Richmond-Adelaide cycle track study, including Peter & Simcoe Streets. Retrieved from http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=ae48a00f92dd5410VgnVCM10000071d60f89RCRD.
- City of Toronto. (2015a). Road engineering design guidelines: Curb radii guidelines. Available from http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=f1b900ee600ca410VgnVCM10000071d-60f89RCRD&vgnextchannel=9deeabbf06721410VgnVCM10000071d60f89RCRD.
- City of Toronto. (2004). City of Toronto Accessibility Design Guidelines. Retrieved from http://www1.toronto.ca/static_files/equity_diversity_and_human_rights_office/pdf/accessibility_design_guidelines.pdf.
- City of Toronto. (2015b). Road engineering design guidelines: Vehicle travel lane width guidelines. Available from http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=f1b900ee600ca410VgnVCM10000071d-60f89RCRD&vgnextchannel=9deeabbf06721410VgnVCM10000071d60f89RCRD.
- Federation of Canadian Municipalities and National Research Council. (2004). Sidewalk design, construction, and maintenance: A best practice by the national guide to sustainable municipal infrastructure. Retrieved from http://www.ogra.org/files/Roadside/Sidewalk_Design_Constructionand_Maintenance_EN.pdf.
- Feldman, E. (2015). Child-friendly cities: What my toddler taught me about city design [blog article]. Retrieved from http://planplaceblog.com/2015/01/20/child-friendly-cities/.
- Foran, C. (2013, September 16). How to design a city for women: A fascinating experiment in "gender mainstreaming." Retrieved from http://www.citylab.com/commute/2013/09/how-design-city-women/6739/.

Institute of Transportation Engineers. (n.d.). Traffic calming measures. Retrieved from <u>http://www.ite.org/traffic/</u> <u>tcdevices.asp.</u>

Interlocking Concrete Pavement Institute (2015). Permeable Pavers. Retrieved from <u>http://www.icpi.org/paving-systems/permeable-pavers</u>.

Learning Landscapes (2013). Projects. Retrieved from http://www.learninglandscapesdesign.com/projects/.

McLennan, J. F. (2011) To save our cities, put children first. Yes Magazine. Retrieved from <u>http://www.yesmagazine.org/</u> <u>planet/to-save-our-cities-put-children-first.</u>

Miami-Dade County. (2010). GreenPrint: Our design for a sustainable future. Retrieved from <u>http://www.miamidade.</u> <u>gov/greenprint/pdf/plan.pdf.</u>

Montréal Urban Ecology Centre. (2012). The Plateau-Est green, active and healthy neighbourhood plan: United for a green neighbourhood. Retrieved from <u>http://activeneighbourhoods.tcat.ca/wp-content/uploads/2014/10/</u> <u>Plateau-Est-plan-complete.compressed.pdf.</u>

National Crime Prevention Council. (2009). Best practices for using crime prevention through environmental design in weed and seed sites. Retrieved from <u>http://www.ncpc.org/resources/files/pdf/training/Best%20Practices%20</u> <u>in%20CPTED%20-2.pdf.</u>

PRA Inc., Research & Consulting. (2009). Prevention by design in Ottawa: Toward a strategic approach to crime prevention through environmental design - final report. Retrieved from <u>http://www.crimepreventionottawa.ca/uploads/files/initiative/final_report_jan_19.pdf.</u>

Province of Ontario. (2000). Ontario traffic manual book 11: Pavement, hazard, and delineation markings. Available from https://www.library.mto.gov.on.ca/search.asp?mode=search.

- San Francisco Municipal Transportation Agency (SFMTA). (2014). SFMTA crosswalk guidelines: Update May 29, 2014 [Memo]. Retrieved from <u>http://www.sfbetterstreets.org/wp-content/uploads/2016/01/SFMTA-CrosswalkGuidelines-5-29-14.pdf.</u>
- Smart Growth America. (n.d.). Green streets. Retrieved from http://www.smartgrowthamerica.org/complete-streets/ implementation/factsheets/green-streets/.
- Toronto Centre for Active Transportation (TCAT). (2012). Complete streets by design: Toronto streets redesigned for all ages and abilities. Retrieved from http://www.tcat.ca/knowledge-centre/complete-streets-by-design-toronto-streets-by-design-toronto-streets-redesigned-for-all-ages-and-abilities/.
- Toronto Centre for Aactive Transportation (TCAT) and MMM Group. (2015). Complete streets policy and implementation guide for Grey Bruce. Retrieved from http://completestreetsforcanada.ca/sites/default/files/documents/GreyBruceCompleteStreetsGuide/29May2015%20%281%29.pdf.
- Transport for London. (2016). Streetscape guidance. Retrieved from <u>https://tfl.gov.uk/corporate/publications-and-reports/streets-toolkit.</u>
- Tranter, P. (2006) Overcoming social traps: a key to creating child friendly cities. In B. Gleeson, N. Sipe (Eds.), Creating Child Friendly Cities [eBook]. Routledge. Retrieved from ProQuest ebrary.
- University of British Columbia (2016, April 11) Kids more active, less depressed when playgrounds include natural elements [Media release]. Retrieved from <u>http://news.ubc.ca/2016/04/11/kids-more-active-less-depressed-when-playgrounds-include-natural-elements/.</u>

Academic Literature

- Alexander, C., Ishikawa, S., & Silverstein, M., with Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). A pattern language: Towns, buildings, construction. New York, NY: Oxford University Press.
- Audrey, S & Batista-Ferrer, H. (2015). Healthy urban environments for children and young people: A systematic review of intervention studies. *Health and Place*, 36, 97-117. Retrieved from http://www.sciencedirect.com/science/article/pii/S1353829215001239.
- Cozens, P., Love, T., & Nasar, J. L. (2015). A review and current status of crime prevention through environmental design (CPTED). Journal of Planning Literature, 30(4), 393-412. Retrieved from http://jpl.sagepub.com/content/early/2015/08/05/0885412215595440.abstract.
- Harvey, C., Aultman-Hall, L., Hurley, S. E., & Troy, A. (2015). Effects of skeletal streetscape design on perceived safety. Landscape and Urban Planning, 142, 18-28. Retrieved from <u>http://www.sciencedirect.com/science/article/pii/</u> <u>S0169204615001139.</u>

Jacobs, J. (1963). The death and life of great American cities. (First vintage ed.). New York, NY: Vintage Books.

- Sorensen, S., Hayes, J.G., & Atlas, R. (2008). Understanding CPTED and situational crime prevention. In R. Atlas (Ed.), 21st century security and CPTED: Designing for critical infrastructure protection and crime prevention, (53-78). Boca Raton: CRC Press.
- Thorpe, A., & Gamman, L. (2013). Walking with park: Exploring the 'reframing' and integration of CPTED principles in neighbourhood regeneration in Seoul, South Korea. *Crime Prevention and Community Safety, 15*(3), 207-222. Retrieved from <u>http://www.palgrave-journals.com/cpcs/journal/v15/n3/abs/cpcs20136a.html.</u>
- Welsh, B., Braga, A., & Bruinsma, G. (2015). Reimagining broken windows: From theory to policy. *Journal of Research in Crime and Delinquency*, *52*(4), 447-463. Retrieved from <u>http://jrc.sagepub.com/content/52/4/447.abstract.</u>

Policies & Plans

- City of Peterborough. (n.d.a). By-law Number 14-096 [Active Transportation By-Law]. Retrieved from <u>http://www.peterborough.ca/Assets/City+Assets/TDM/Documents/Active+Transportation+By-law.pdf</u>.
- City of Peterborough. (n.d.b) Walking and Cycling. Retrieved from <u>http://www.peterborough.ca/Living/City_Services/</u> <u>Transportation/Walking_and_Cycling.htm.</u>
- City of Peterborough. (n.d.c). George Street Improvement Project [Project website]. Retrieved from http://www.peterborough.ca/Business/Studies/George Street Improvement Project Sherbrooke Street to Perry Street. http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.htm">http://www.htttp://www.http://www.htttp://www.http://www.http://www.htttp:/
- City of Peterborough. (2009). Central Area Master Plan. Retrieved from http://www.peterborough.ca/ <u>Assets/City+Assets/Planning/Documents/Ongoing+Planning+Studies/Central+Area+Master+Plan/Central+Area+Master+Plan+Final+Report.pdf.</u>
- City of Peterborough. (2011). Official Plan Healthy Communities / Social Services Workshop Feedback Report. Retrieved from <u>http://www.peterborough.ca/Assets/City+Assets/Planning/Documents/</u> <u>OP+Review+Healthy+Communities+Stakeholder+Workshop+Feedback+Report.pdf.</u>
- City of Peterborough. (2012a). City of Peterborough comprehensive transportation plan. Retrieved from http://www.peterborough.ca/Assets/City+Assets/Transportation/Documents/ Transportation+Plan/2012+Comprehensive+Transportation+Plan+Report.pdf.
- City of Peterborough. (2012b) Official Plan Review: Draft Policy Directions Report. Retrieved from <u>http://www.</u> peterborough.ca/Assets/City+Assets/Planning/Documents/OP+Review+Draft+Policy+Directions+Report.pdf.
- City of Peterborough. (2012c). Sidewalk strategic plan. Retrieved from <u>http://www.peterborough.ca/Assets/</u> <u>City+Assets/TDM/Documents/Sidewalk+Strategic+Plan.pdf.</u>

City of Peterborough. (2013). Pavement marking 'standard specifications' and 'standard drawings.' Retrieved from <u>http://www.peterborough.ca/Assets/City+Assets/eTenders/</u> <u>Closed/2013/2013+City+of+Peterborough+Construction+Specifications/E+-+Pavement+Markings+Standard+Sp</u> <u>ecifications+\$!26+Drawings+-+March+2013.pdf.</u>

City of Peterborough. (2014). The City of Peterborough Official Plan: Schedule B(a) bikeway network [Map]. Retrieved from http://www.peterborough.ca/Living/City_Services/Geomatics_Mapping/Maps.htm.

City of Peterborough. (2015). Engineering design standards: Utility Services Department. Retrieved from <u>http://www.peterborough.ca/Assets/City+Assets/Engineering/Documents/Engineering+Design+Standards.pdf.</u>

Province of Ontario. (2006). Growth Plan for the Greater Golden Horseshoe. Retrieved from <u>https://www.placestogrow.</u> ca/content/ggh/2013-06-10-Growth-Plan-for-the-GGH-EN.pdf.

Province of Ontario. (2013, January 1). O.Reg. 191/11: Integrated Accessibility Standards, under Accessibility for Ontarians with Disabilities Act, 2005. Retrieved from https://www.ontario.ca/laws/regulation/110191.

Province of Ontario. (2014). Provincial Policy Statement. Retrieved from <u>http://www.mah.gov.on.ca/AssetFactory.</u> <u>aspx?did=10463.</u>

GIS Data & Maps

- City of Peterborough. (n.d.) e-Maps Peterborough [Interactive map]. Retrieved from <u>http://maps.peterborough.ca/</u><u>emaps/.</u>
- City of Peterborough. (2012). Trails & bikeways: City of Peterborough [Map]. Available from <u>http://www.peterborough.ca/Living/City_Services/Geomatics_Mapping/Maps.htm.</u>

City of Peterborough. (2016). Clipped GIS layers [GIS data]. Retrieved from City of Peterborough staff.

Google. (2016a). Google earth [Interactive maps, aerial photos, and street view imagery]. <u>Available from https://</u> www.google.com/earth/.

Google. (2016b). Google maps [Interactive maps, aerial photos, and street view imagery]. Retrieved from http://maps.google.com/. Retrieved from http://maps.google.com/.

Microsoft. (2016). Bing maps [Interactive maps and aerial imagery]. Retrieved from http://www.bing.com/maps/.

Ontario Ministry of Natural Resources, & Fugro Earthdata, Inc. (2013, May 7). South Central Ontario Orthophotography Project (SCOOP) 2013 [Orthoimagery]. Retrieved from Scholars GeoPortal.

Images

- Author 825545. (2014). Dog shaking itself [Image]. Retrieved from <u>https://commons.wikimedia.org/wiki/File:Dog-shaking-itself.jpg</u>.
- Environmental Protection Agency. Green Street Planters [image]. Retrieved from <u>http://www.spur.org/news/2013-05-</u>23/restoring-san-francisco-s-urban-watersheds.

Google. (2011). Street View image [approx. 44.297657, -78.323976, looking south]. Available from <u>http://maps.google.</u> <u>com.</u>

Hobemich. (2008). Marketplace - waldkirchen - farmers local market [Image]. Retrieved from <u>https://pixabay.com/</u> <u>en/marketplace-waldkirchen-836360/.</u>

Liveability. Painted Crosswalks [image]. Retrieved from http://www.livability.com/topics/transportation/five-fun-twists-crosswalks-and-other-pedestrian-crossings.

- MIG Inc. Boulders in Sandbox [image]. Retrieved from http://www.restreets.org/case-studies/pearl-street-pedestrian-mail.
- New York City Department of Transportation. Complete Streets [image]. Retrieved from <u>http://www.citylab.com/</u> <u>topics/complete-streets/</u>.

Parkinson, R. Solitary Kiosk 001 [image]. Retrieved from http://www.parkinson.com/blog/.

People in Renderings [images]. Retrieved from http://www.nonscandinavia.com/.

Images from Citizens' Forum taken by Paul Flude.

