peterborough

Mixed-Use Corridors Urban Design Guidelines

August 29, 2023

We respectfully acknowledge that the City of Peterborough is situated on the treaty and traditional territory of the Mississauga Anishinaabeg. We offer our gratitude to the First Peoples for their care for, and teachings about, our earth and our relations. May we honour those teachings.

This project was funded with the support of the Province's Streamline Development Approval Fund. The views expressed in this publication are the views of the City and do not necessarily reflect those of the Province.

Contents

1 Introduction

The City's new Official Plan (2023) sets the foundation for the Mixed-Use Corridors Urban Design Guidelines (MCUDG) for areas outside the Central Area. The Official Plan is framed around a Vision and Guiding Principles to guide growth and land use planning decisions by reflecting local priorities, knowledge, preferences and aspirations. The Vision expresses an aspirational future for the City, and the more detailed direction to achieve this future is articulated in the Guiding Principles. The Vision is as follows:

"Peterborough is a prosperous community, distinctive in its natural beauty, cultural heritage, and strong sense of community. As a leader in resilience and environmental sustainability, planning in Peterborough uses infrastructure and land efficiently, promotes healthy lifestyles and incorporates green initiatives to increase the City's adaptive capacity. The City will continue to develop as a complete, resilient, and connected community that provides a high quality of life, supports a strong and diverse economy and promotes a unique, vibrant sense of place. Peterborough is equitable and accessible for all residents and visitors and celebrates its engaged, inclusive and diverse community."

Five Guiding Principles provide direction for achieving the Vision.

1 Complete Community

A complete community is one that meets people's needs for daily living throughout their lifetime by providing convenient access to a mix of jobs, services, housing, food, public service facilities, open space, and transportation choices.

2 Environmental Stewardship and Sustainability

Environmental sustainability means meeting the resource and service needs of current and future generations without compromising the health of the ecosystems that provide them.

3 Vibrant and Unique

Peterborough is home to a vibrant arts and heritage community and is home to the rich cultural history of the Michi Saagiig Nation. The City's location in the Kawartha Lakes region offers a range of opportunities for recreational and leisure activities that cater to active lifestyles. The Otonabee River, Little Lake, Trent-Severn Waterway and the historic hydraulic lift lock are unique features that help define Peterborough's identity. Communities with social and physical characteristics that make them special and unique foster a sense of attachment and belonging for residents and visitors.

4 Well Connected with Options for Mobility

Peterborough is a social, cultural and economic hub, made possible by its ability to move people and goods throughout the city and region. An efficient, integrated and multi-modal transportation system provides choice for easy, accessible travel by facilitating all forms of transportation. Fostering a multi-modal, linked transportation system enhances the community's economic competitiveness, fosters active and healthy lifestyles, facilitates social and economic inclusion, and promotes environmental and economic sustainability.

5 Strong and Diverse Economy

A strong, diverse economy is integral to a successful community. Peterborough is fortunate to be home to an abundance of natural resources, world-class educational and recreational facilities, a modern regional health care centre, a strong government sector, a diverse industrial sector, a dynamic arts and culture sector, and a highly skilled, creative workforce. Peterborough is further recognized as having a strong and resilient entrepreneurial community. Peterborough is positioned with strong regional agricultural and tourism sectors, a growing regional airport, and convenient transportation links to regional, national and international markets and recognizes the economic benefits of being accessible to all. Diversity and inclusion are important drivers of economic growth and innovation. Strong and diverse economies capitalize on existing community assets and are sustained by strategic infrastructure investment, a land base for employment, a talented and creative labour force, partnerships, diversification, and by enhancing quality of life.

Planning Context of the Urban Design Guidelines

The City's new Official Plan (2023) identifies key corridors as Strategic Growth Areas on the City's Urban Structure (Schedule A) and the Land Use Plan (Schedule B) designates Major and Minor Mixed-Use Corridors. The Official Plan states that Mixed-Use Corridors:

- have the potential to accommodate significant growth, in a more urban built form, with mid-rise and high-rise buildings, community or regionally scaled retail and service commercial uses, institutional facilities and office uses;
- play a crucial role in defining the planned urban structure of the City, and in supporting successful transit and active transportation systems; and
- are intended to be responsive to changes in land use and densities, and permit a broad range of uses.

The City intends to ensure that there is a significant supply of lands to provide opportunities for a diversified economic base, that the necessary infrastructure is available to support growth and development, and all development is of high quality design.

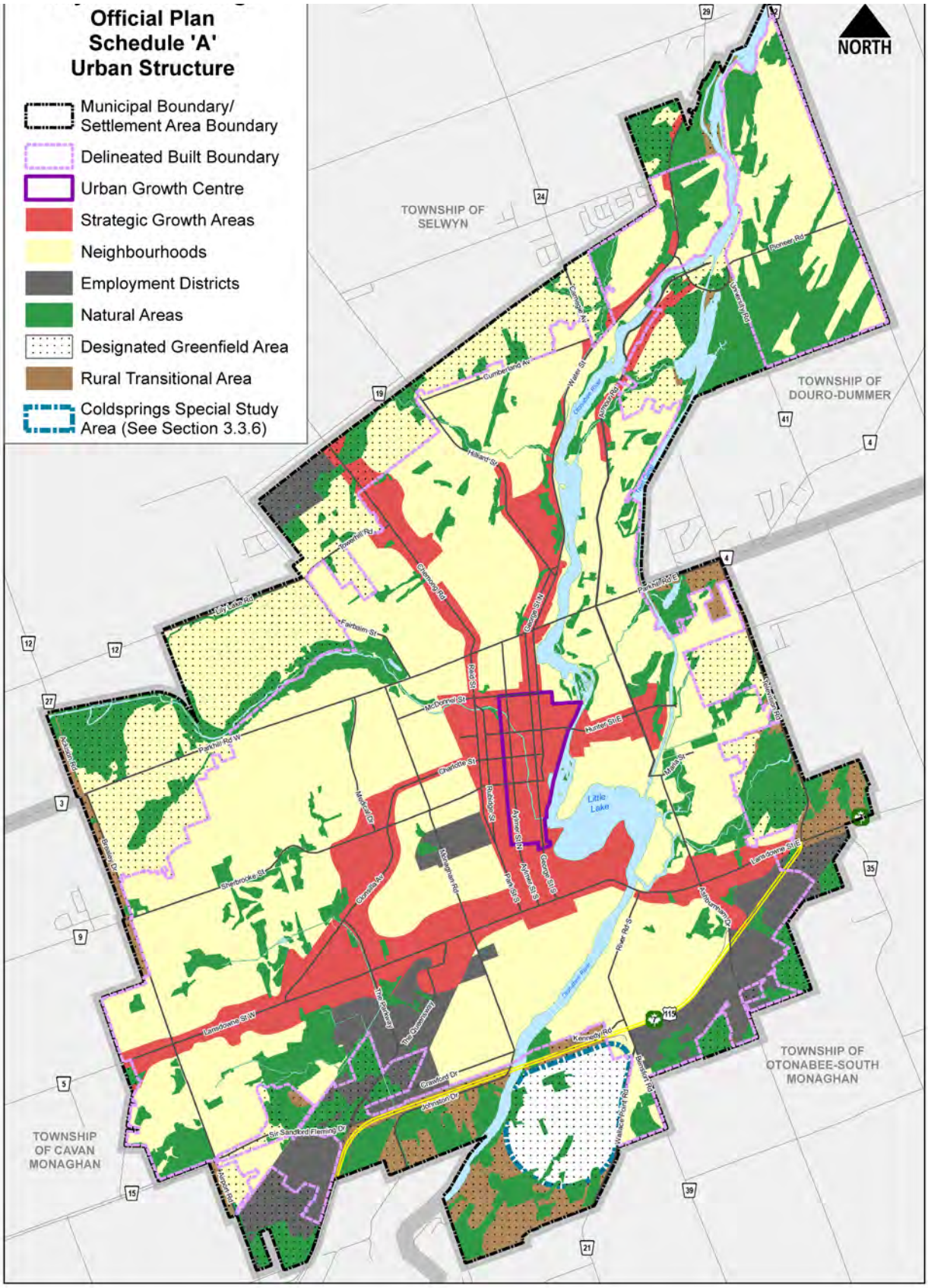
The lands within the Major Mixed-Use Corridor Designation are ideal locations for major retail facilities and other commercial development. The focus is on broadening the mix of land uses, and promoting good urban design and high quality architecture and landscapes. Lands in the Major Mixed-Use Corridor Designation are key destinations for the existing and planned transit and active transportation systems.

The Minor Mixed-Use Corridor Designation recognizes areas that are primarily low-rise residential, but that also function as part of the connective spine of the City. Minor Mixed-Use Corridors provide an opportunity for creating vibrant, pedestrian, cyclist and transit-oriented places through investment in infrastructure, as well as modest residential intensification, infill and redevelopment, with particular attention to the adjacent context. These corridors are expected to accommodate limited intensified development, while maintaining a broad mix of compatible land uses that support investment in transit and the achievement of complete communities.

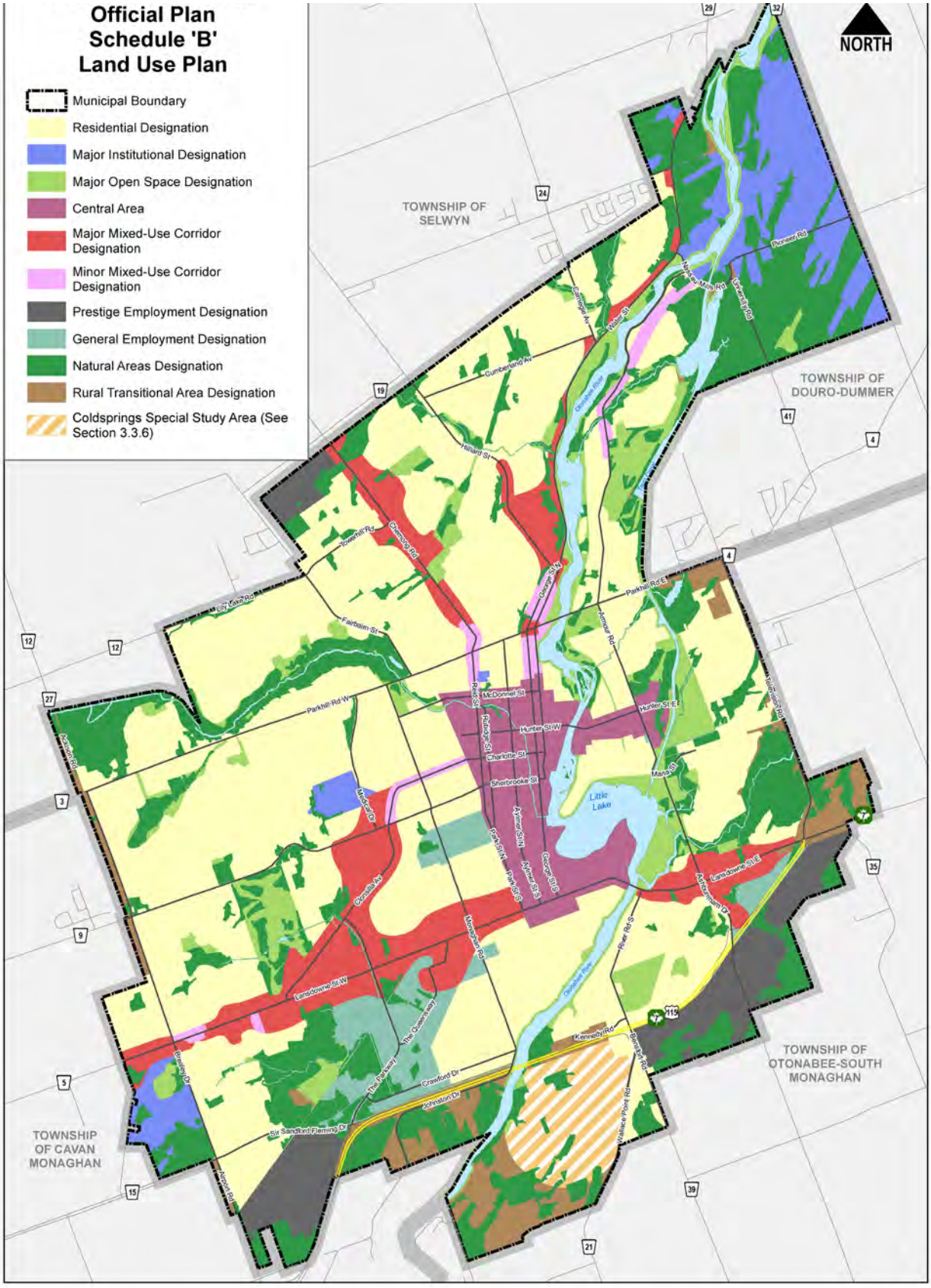
While these Urban Design Guidelines provide direction along the Mixed-Use Corridors, they may also be used to guide intensification projects outside the corridors to ensure high quality design.

Existing conditions near Lansdowne/Clonsiilla

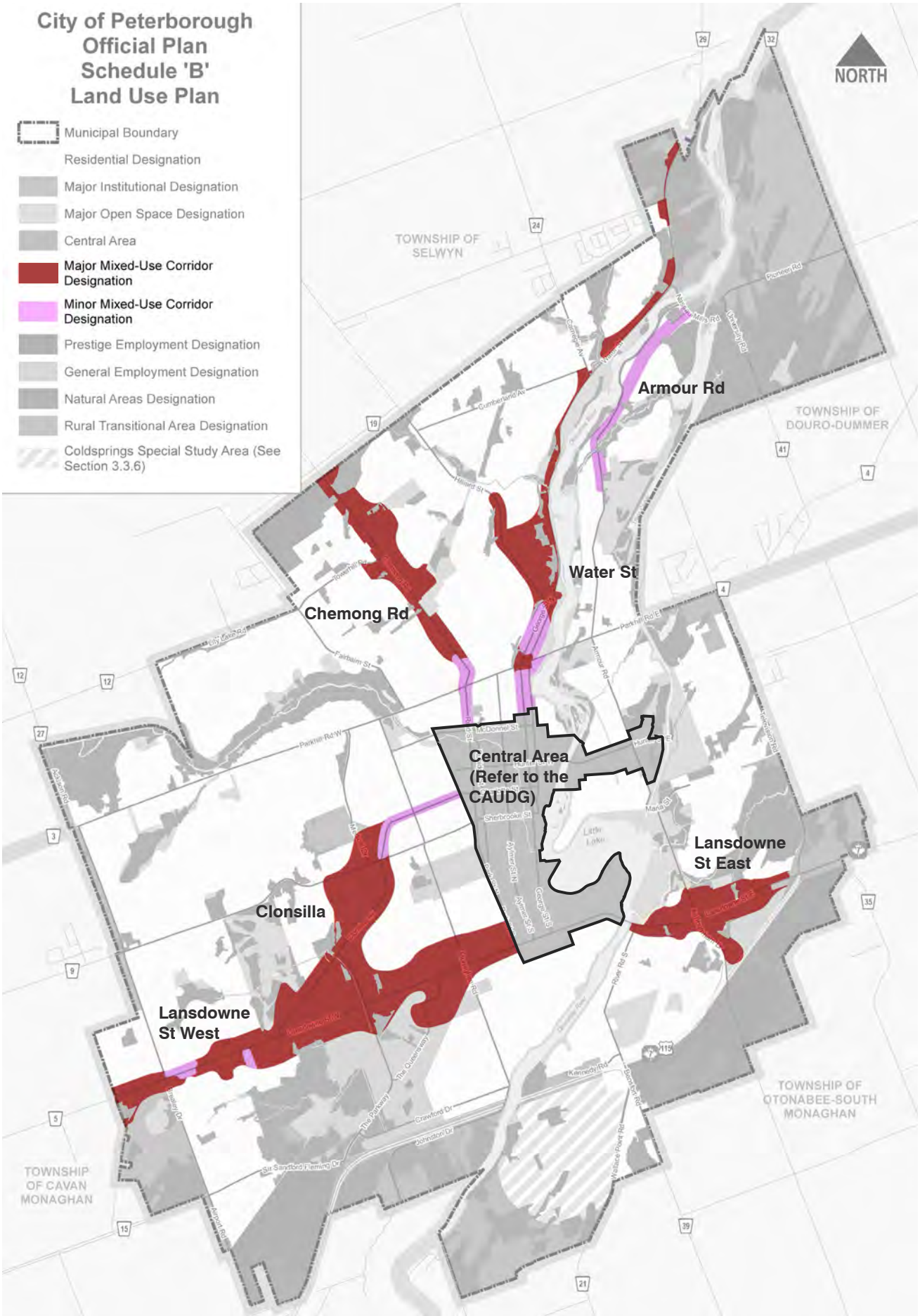
Existing conditions near Lansdowne/Ashburnham



Schedule A - Urban Structure from the City's new Official Plan (2023)



Schedule B - Land Use Plan from the City's new Official Plan (2023)



Applicable areas for the Mixed-Use Corridors Urban Design Guidelines: Major and Minor Mixed-Use Corridors highlighted on Schedule B - Land Use Plan from the City's new Official Plan (2023)

The Mixed-Use Corridors

There are five Mixed-Use Corridors that are the focus of these Guidelines. The Corridors include the key intersections identified in the Official Plan.

Lansdowne Street

Lansdowne Street is designated Major Mixed-Use Corridor along its length with the exception of the Central Area designation downtown between Park Street and Little Lake. Lansdowne Street is the primary east west route through the city north of Highway 7. It has a widely varying character from one storey large format highway related retail and commercial uses with parking in front, two storey mixed use buildings, a secondary school and the Lansdowne Place Mall. There are numerous undeveloped and under developed properties along Lansdowne Street making it an ideal location for intensification.

There are several key intersections along Lansdowne Street. Two of the key locations are:

- The area around the Lansdowne/Clonsilla intersection which functions as a gateway for travellers entering the city from the west. From this location, Downtown is directly accessible via Clonsilla Avenue while major commercial areas along Lansdowne Street are located a short distance to the east. The area offers significant potential to transform into a mixed-use corridor at higher densities that better integrate public transit. The generally large scale property fabric means that an entire new neighbourhood can be created through redevelopment, with a new system of streets and public spaces.
- The area around the Lansdowne/Ashburnham intersection is a gateway for travellers entering the city from the east and for visitors to the historic Peterborough Lift Lock and Trent-Severn Waterway. At this location, Lansdowne Street connects areas to the west of the Otonabee River to eastern Ontario, via Highway 7. This area contains several large properties that offer an opportunity to transform the area into a mixed-use neighbourhood with densities that better integrate public transit and promote accessibility throughout the area. When considered comprehensively, properties in the area are large enough to support the creation of an entire new neighbourhood with a new system of streets and public spaces.

Clonsilla Avenue/Charlotte Street

Clonsilla Avenue is designated as a Major Mixed-Use Corridor transitioning to a Minor Mixed-Use Corridor north of Sherbrooke and along Charlotte Street to the edge of the Central Area. North of The Parkway, the commercial sites are ideal for redevelopment and intensification as there are already a number of higher density residential buildings on the street. North of Goodfellow Road, the character changes to predominately residential with associated trees and landscape.

The intersection of Clonsilla at Sherbrooke Street is currently dominated by low rise, single detached dwellings fronting onto both the arterial and local roads. It is identified as a key intersection in Section 4.4.2 h. of the Official Plan. The Peterborough Regional Health Centre is nearby, creating a health-services cluster in the City which serves the entire region. Most opportunities for intensification within the area exist along Clonsilla Avenue, particularly along the west side where a number of single-detached lots could be consolidated over time.

East of Monaghan Avenue, Charlotte Street is part of the Avenues and Neighbourhood Heritage Conservation District. Development in this area must be compatible with the *Avenues and Neighbourhood Heritage Conservation District Plan*, 2016.

Existing conditions along Clonsiilla Avenue west of The Parkway

Chemong Road

Chemong Road is designated as a Major Mixed-Use Corridor, changing to Minor Mixed-Use to the south of Parkhill Road. Chemong Road is the commercial and service hub for the north end of Peterborough as well as township communities north of the city. The Corridor has two distinct sections of commercial activity: in the north, from Milroy Drive south to the Parkway Trail; and in the south, between Sunset Boulevard and Wolsely Street. The parcels offer some of the best potential to transform into higher density, mixed use development with new road and pedestrian connections added over time as development occurs. Chemong Road will continue to serve a large-format commercial function for some time as change is expected to be incremental.

Northwest of the commercial corridor on Chemong, there is ample room for new subdivision development providing an opportunity to transition between the higher density uses along Chemong and the existing low density neighbourhoods. In the long term, development and redevelopment is expected to enhance the surrounding neighbourhoods creating more complete communities.

Existing conditions along Chemong Road

Water Street

Water Street is a gateway into the city from the north following the Otonabee River. In the north end, there are pockets of land designated Major Mixed-Use Corridor, with a commercial centre at Hilliard Street. South of Hilliard Street, Water Street is designated as a Minor Mixed-Use Corridor. The Water Street corridor to Hilliard Street is an established community with a mix of residential, open space and commercial uses. In contrast to many of Peterborough's other centres and corridors, there are no large-scale redevelopment opportunities. Instead, there are many smaller parcels with existing low density commercial uses that can be intensified. The structure of the community in terms of roads, public spaces, and buildings is established, and change in this corridor will be about appropriate, compatible infill that fits with the existing structure and enhances the community.

The north end of Water Street near Trent University follows the Otonabee River with open green space along the river's west banks. The west side of Water Street has some commercial use and student housing associated with the University. The north end of Water Street is largely wooded with pockets of commercial uses. There are opportunities for modest intensification along the gateway to the city from the north and to serve the University.

Recent student housing along the north of Water Street

Armour Road

Armour Road, south of Nassau Mills Road, is designated as a Minor Mixed-Use Corridor. This area contains portions of a Designated Greenfield Area located between the Otonabee River and the Trent Canal. Armour Road itself is planned to be relocated away from the Otonabee River. The presence of Trent University provides potential for the establishment of a new community, with Armour Road acting as a mixed-use spine.
Due to the proximity of the canal and the river, development in this area would warrant special consideration for stormwater management and potential incentives for low-impact development. These features also support the creation of public space for enjoyment of both waterfronts.

Existing conditions along Armour Road near where the realignment would begin

Purpose of the Mixed-Use Corridors Urban Design Guidelines

Urban design is the comprehensive and cohesive integration of buildings, streets, and open spaces to create liveable places/environments. The essence of good urbanism is determined by the organization of these elements and the relationship between the public and private realm at ground level.

Buildings must face onto streets and public spaces with doors and windows which invite interaction between indoor and outdoor uses, provide casual observation of space, and facilitate direct pedestrian movement and activity.

The Mixed-Use Corridor Urban Design Guidelines reflect the best practices in planning and design. They are non statutory statements which are general rules and recommendations. The Guidelines are inherently flexible in their interpretation and application. The MCUDG augment the City's statutory planning tools, including the Official Plan, the implementing Zoning By-law, Site Plan Control and Draft Plans of Subdivision/Condominium. They provide greater clarity on urban design, streetscapes, built form, and sustainability initiatives. The Guidelines are to be read in conjunction with, and complement the objectives and policies of the Official Plan, Zoning By-law, master plans, secondary plans, community design plans, and other special studies, guidelines or standards.

The MCUDG, in concert with the suite of the City's statutory planning tools, will be used to help evaluate development applications to ensure that a high level of urban design and the intended level of sustainability is achieved, and to guide the design of public realm projects.

The guidelines will be used by:

- City Council and Committees when evaluating whether an application meets the City's vision for development;
- City staff and external agencies when reviewing development applications, and as a reference for design decisions for proposed studies and projects;
- The development industry including developers, consultants, and property owners to demonstrate how their proposals align with the policies and objectives for the Mixed-Use Corridors;
- City staff and other public agencies in designing public realm projects, and,
- The public for greater awareness of the benefits of high quality urban design in their community.

Notwithstanding the foregoing, the policies and regulations inherent to the City's suite of statutory planning tools shall prevail over the provisions of Guidelines in the event of any conflict.

Implementation Tools

The MCUDG are implemented primarily through the policies of the Official Plan, the regulations of the implementing Zoning By-law and application, where appropriate, through Site Plan Control. The City may also consider the use of tools such as Community Improvement Plans, the Community Benefits By-law and a Community Planning Permit System to assist with the implementation of development, design, and sustainable development guidelines. Other non-statutory planning approaches may also be considered, including the use of Architectural Control and/or a Design Review Panel.

Applicability

The MCUDG shall apply to all projects in Mixed-Use Corridors subject to review and planning approval by the City through Official Plan Amendments, Zoning By-law Amendments, Subdivisions, Condominiums, Site Plan Control applications and minor variances as permitted under the Planning Act. Consistency with the provisions of the MCUDG does not preclude compliance with other statutory development regulations associated with an application as required by the City, or other relevant jurisdiction. The MCUDG also apply to all City capital projects, including design and construction of roads, sidewalks and parks. These Guidelines may also be used to guide intensification projects outside of the corridors.

Submissions

To assist decision makers, stakeholders, and community members in understanding proposals, applicants shall submit an Urban Design Brief with their development proposal as part of a complete development application. The Urban Design Brief shall describe the project and demonstrate to the City how their proposal is consistent with the MCUDG and will include written materials, graphic illustrations, and diagrams necessary to demonstrate consistency with these Guidelines.

Structure of the Mixed-Use Corridors Urban Design Guidelines

The Mixed-Use Corridors Urban Design Guidelines are organized under 5 sections:

Private Realm Guidelines

To provide direction for the development of buildings and their associated access and landscape by the private sector.

Green Infrastructure and Buildings

Applies to private and public development to achieve the sustainability principles of the Official Plan.

Tree Planting

Applies to planting of trees on public streets, parks and on private property.

Street Guidelines

To provide direction for detailed streetscape design in the Mixed-Use Corridors. The guidelines are based on the City's complete streets as set out in the Transportation Master Plan. Cross sections illustrating the allocation of space in the right-of-way for key streets are included.

Park Guidelines

To provide direction for the detailed design of Park Spaces associated with private sector development or City initiatives.

2 Approach

Compatible Development

These Urban Design Guidelines provide a framework for design that respects and reinforces the desired existing and planned character of Peterborough's Mixed-Use Corridors. The Guidelines are based on a contextual approach to design that considers the visual impact to, and relationships with, adjacent and surrounding developments. This approach promotes compatible forms and designs, pedestrian scaled and oriented streetscapes, and allows for appropriate flexibility, innovation and diversity in design, qualities intrinsic to evolving communities.

Change resulting from development in the Mixed-Use Corridors areas should be considered an appropriate part of the City's ongoing evolution and constant change.

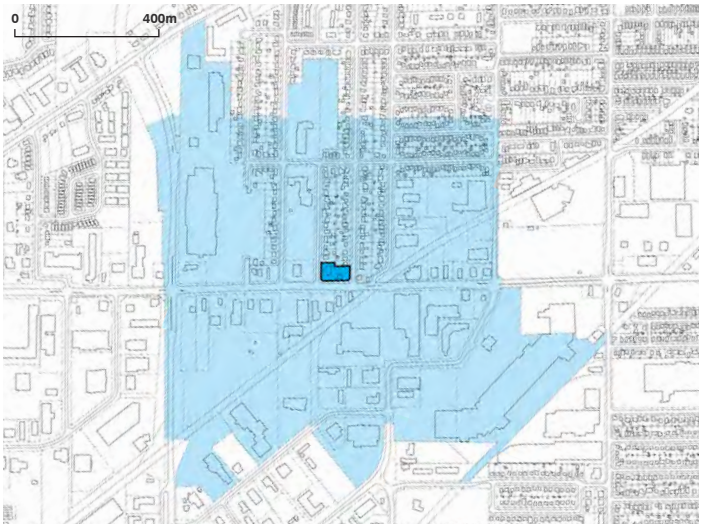
The key is to manage change such that the characteristics of the Mixed-Use Corridors that are valued as "positive" are enhanced, and those characteristics that are considered detrimental are eliminated or mitigated.

The starting point is to consider the definition of "Compatible Development" in the City of Peterborough's new Official Plan (2023):

> ***"Compatible development is not development that is the same as, or even similar to existing development in the vicinity. Compatible development is development that enhances the character of the surrounding community without causing any undue, adverse impacts on adjacent properties including, but not limited to, consideration of Provincial guidelines relating to Land Use Compatibility and Environmental Noise."***

This definition raises a variety of key phrases that require further definition:

- ***Development in the vicinity*** – the concept of vicinity can be flexible. Within this context, the definition of vicinity should vary by the scale of development. There are three key scales of development/redevelopment that must be considered, including:
  - Major or large scale redevelopment, where land assembly and significant intensification are proposed - likely in higher density forms. The vicinity here should include the adjacent street network, and properties within a distance of 400 metres from the property;
  - Minor redevelopment, where land assembly is not necessarily required, but any existing buildings are demolished or adaptively reused as part of the new intensified development. The vicinity here should include properties within 150 metres from the property; and/or,
  - Modifications to an existing building, including renovations or additions, or the construction of a new dwelling on an existing lot. The vicinity here should be more immediate, and include abutting neighbours (the properties on either side and behind) and a similar group of properties adjacent across the street.



The area of influence for large redevelopment sites will generally include properties within 400m and the surrounding street network

The area of influence for minor redevelopment sites will generally include properties within 150m

The area of influence for modifications to an existing site or building will generally be the immediate neighbouring and facing properties.

- ***Enhance an established community*** – this is a phrase that needs to be articulated generally. To pass this test, the nature and character of the defined vicinity needs to be considered. Clear statements about those attributes that define the character of that vicinity are required to assist in the determination of what form of building can "enhance" that character, and what form of building may be "detrimental". Attributes are defined by, for example:
  - lot size;
  - setbacks;
  - landscape character;
  - building height, mass, form, materials;
  - heritage values; and,
  - streetscape character.
- ***Coexistence without undue impact on surrounding properties*** – this is an onerous test, usually related to easily identifiable/ quantifiable impacts like shadow, privacy, traffic and parking problems.

3 Principles

Urban Design Principles

Urban design, for purposes of this document, is the process of giving form, shape and character to the physical elements of Peterborough's Mixed-Use Corridors. The guidelines for urban design are based on six principles that the public and private realms work together to achieve.

1 Make Connections

Ensure new development is permeable, maintains existing connections and creates new connections, especially to green spaces. New development must ensure a high degree of connectivity by creating clear systems.

2 Define Gateways & Entrances

Create a sense of entry and transition at key gateways into the City on Lansdowne Street, Chemong Road and Water Street. Gateways can be defined through building and/or landscape design, signage and public art.

3 Make Streets for People

Ensure that streets prioritize the comfort and safety of active transportation and transit users. Priority should be given to retail, restaurant, commercial or institutional uses that support active transportation.

4 Foster a Unique Sense of Place

Design buildings that are compatible with the cultural identity of Peterborough, while creating new, distinct places. Cultural and built heritage, streetscapes, views, important places and landmarks should be preserved.

5 Protect Public Views

Preserve and restore significant view corridors to prominent buildings and landscape features.

6 Be Inclusive & Equitable

Design buildings and spaces that are accessible, inclusive and equitable.

4 Private Realm Guidelines

The private realm in the Mixed-Use Corridors is comprised of buildings and associated parking, landscape and open space within development parcels. Private development can frame and terminate views, reinforce the character of an area and support activities in the public realm. The Mixed-Use Corridor Urban Design Guidelines (MCUDG) ensure harmonious integration of new and existing development, while anticipating a variety of built form and architecture to create a visually appealing and diverse urban area.

These guidelines promote high quality urban design in the private realm that reinforces 'human scaled' environments and promotes a sense of place.

Good urban design practices will promote excellence in the design of the private realm. While the specifics of each development proposal may vary, the overall objectives will remain the same and include:

- Creating distinctive, appealing, and pedestrian friendly streetscapes through attention to building design;
- Ensuring appropriate massing, materials, building siting, and design compatibility; and
- Identifying enhanced design requirements for priority locations having highly visible elevations.

Guidelines for built form generally relate to building orientation, setbacks, height and frontages and building/site access, parking and landscape.

Private realm guidelines are organized into two broad sections: built form and site considerations. The built form section includes direction on specific types of buildings.

Buildings

Building Placement & Orientation

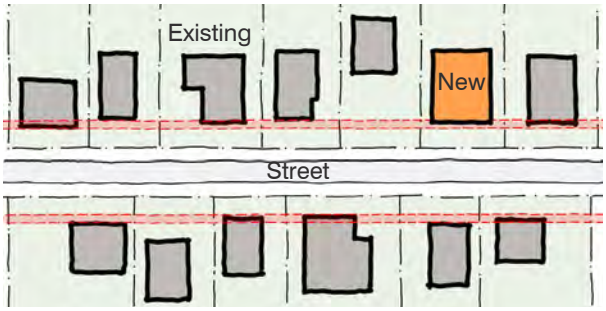
Orientation and placement of buildings along the street helps to reinforce the public realm by enhancing the pedestrian environment by creating a sense of enclosure. This is achieved by framing the street with buildings.

Guidelines

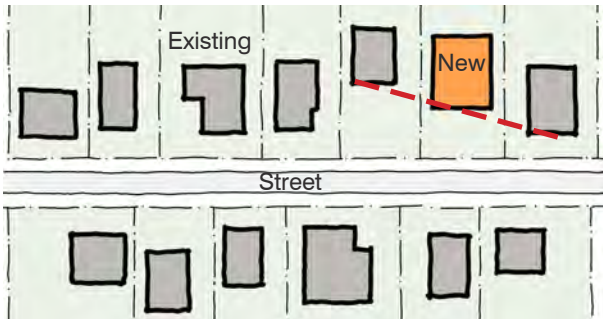
a) In general, locate buildings near the front property line to create good street definition and a sense of enclosure.

b) In Major Mixed-Use Corridors, consider the existing and planned character of the street in determining the setback for new development. In general, buildings at the street wall should not be set back more than 5 metres from the front property line.

c) Along streets in Minor Mixed-Use Corridors with an established residential building setback, place new buildings to fit within the predominant setback of the block, or the average of setbacks on adjacent properties.



New development in Minor Mixed-Use Corridor set back at the predominant setback along the streetscape.



New development in Minor Mixed-Use Corridor set back at the average of setbacks on adjacent properties.

d) Setbacks on the secondary frontage of a corner property in a Minor Mixed-Use Corridor may match the primary frontage setbacks for no more than 80% of the secondary frontage before transitioning to the predominant setbacks of the secondary street.

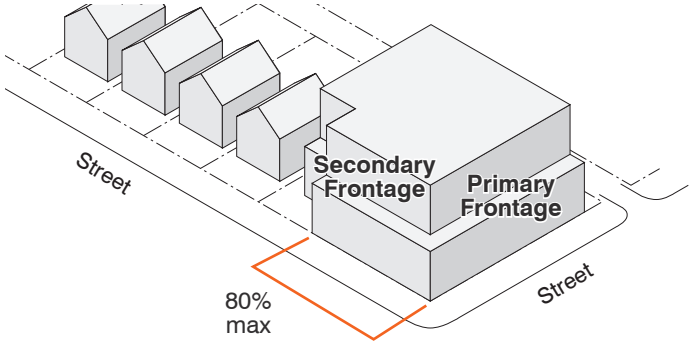


Diagram illustrating matching setbacks on secondary frontage for 80% of the secondary frontage

e) Orient the primary facade to face the adjacent street or public space. On a corner property, orient the primary facade to the street with the higher classification. If both streets have the same classification, both frontages should be treated as primary.

f) Buildings may be set back from the street edge where they frame and define the edges of public spaces, such as plazas, courtyards, seating areas and enhanced sidewalks; or, where it provides a view to an important landmark.

Larger set back when defining a public space

Height & Massing

Building heights play an important role and can impact the character and quality of the street experience. Consistent height and mass of buildings along the street edge ensures visual continuity and maintains the pedestrian scale at the street, but it is also important to reduce the visual mass of large, single buildings.

Guidelines

a) New buildings should consider and respect the scale and massing of adjacent residential buildings, providing setbacks, stepbacks, and transitions, as appropriate to prevent adverse impacts on neighbours.

b) Divide up larger building masses through architectural articulation, varying setbacks and roof lines.

Varying form, material and massing to divide up a building's mass

Use of material, colour, variation of setback and roof line

Street Wall

The street wall is one of the most significant elements of a street and collectively shapes the character of the community, creating continuity in the building edges that define streets and public spaces. The street wall is the first 2 to 6 storeys facing the adjacent public street, above which there is a stepback. Stepbacks above the street wall ensure pedestrians have access to light and sky views from sidewalks and enhance the character of the street.

Guidelines

a) The street wall of buildings should aim to occupy a minimum of 40% and a maximum of 90% of the frontage along public streets.

b) In Major Mixed-Use Corridors, building height at the street wall should generally be between 2 and 6 storeys.

c) In Minor Mixed-Use Corridors, building height at the street wall should generally be between 2 and 4 storeys.

d) Buildings taller than the street wall should provide a minimum 2 metre stepback above the street wall.

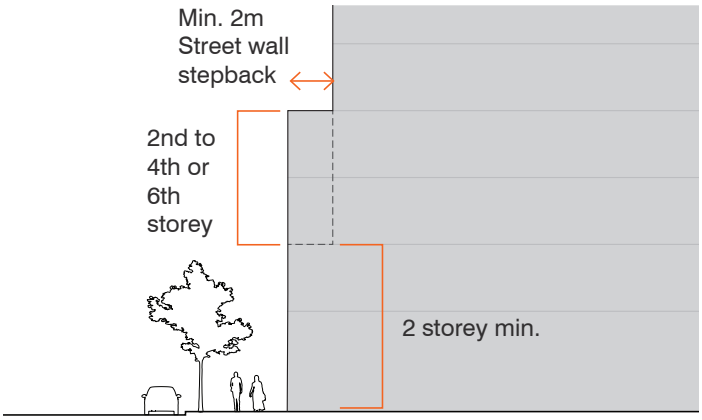


Diagram illustrating street wall height and stepback

Creating a street wall along a street corridor

Transitions

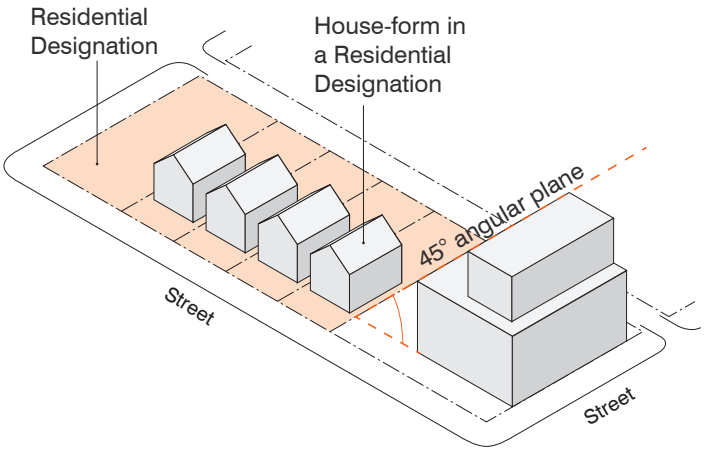
Building scale and height should transition to low-rise residential areas to avoid abrupt changes of height, limit shadow and overview impacts, and ensure adequate sky view for the existing uses. Angular planes are used for the transition to low-rise residential areas.

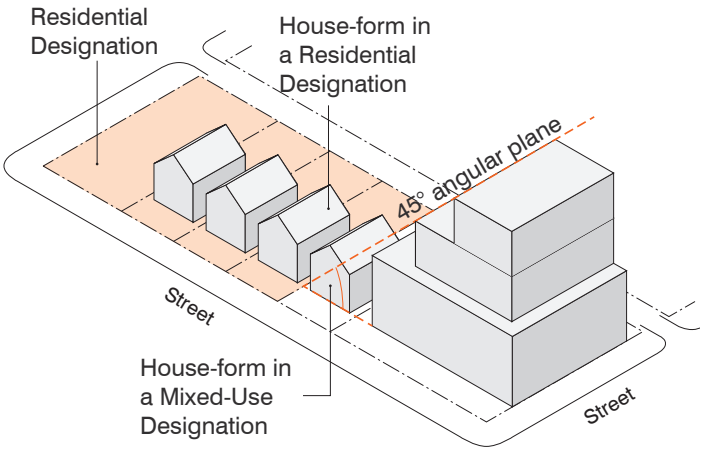
Guidelines

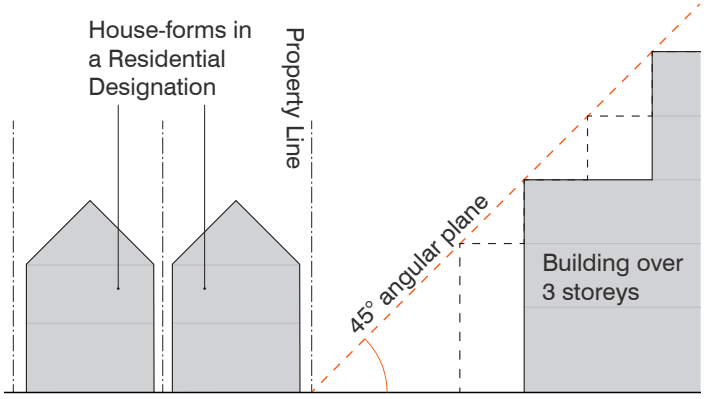
a) Buildings over 3 storeys in height should fit under a 45 degree angular plane from the side or rear property line of existing house-form residential buildings within Residential Land Use Designations.

b) Consider conducting sun/shadow studies or using alternative angular planes for shallow sites where the 45 degree angular plane severely limits development potential.

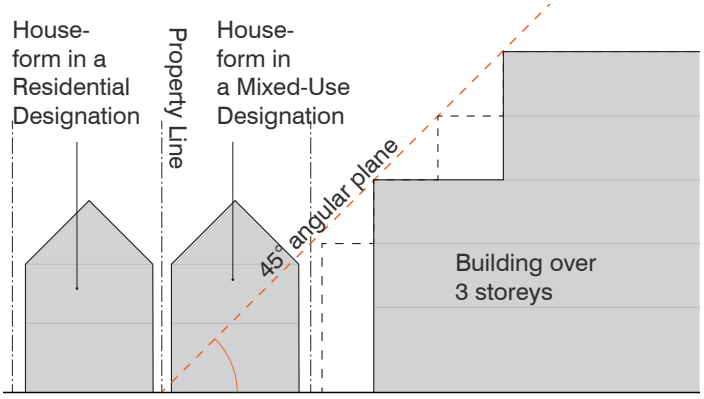
Building showing application of 45 degree angular plane







Diagrams illustrating angular plane from property line of house-form residential building in a residential designation



Diagrams illustrating angular plane from property line of house-form residential building in a residential designation when a house-form in a mixed-use designation is adjacent to the development

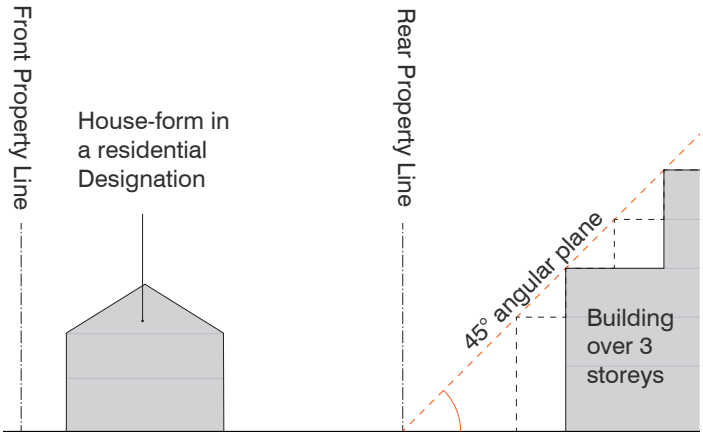


Diagram illustrating angular plane from rear property line of house-form residential building in a residential designation

Building showing application of 45 degree angular plane from a side/rear property line

Transitional Compatibility

Defining the compatibility of new development is more difficult in areas that are transitioning in use or in built form. New uses or built forms in transitional areas should take care to create buffers or other necessary transitions to ensure that potential issues with compatibility are minimized.

Guidelines

a) Use landscape buffers and appropriate building setbacks from side or rear property lines to minimize compatibility issues between uses or significantly different building heights.

b) Preserve existing landscape buffers with mature vegetation where feasible. Special consideration should be given to boundary trees during initial design development.

c) In mixed use developments, locate new residential units away from potentially incompatible neighbouring land uses wherever possible, or provide more significant setbacks or buffers.

d) Development at intersections should prioritize the establishment of the future desired character, with transitions to existing mid-block uses where necessary.

e) Step down the built form at the rear or side of the building to provide transition to more sensitive existing uses, such as low rise residential, to minimize the impact of shadows and maximize privacy, access to sunlight and sky views for neighbouring properties.

f) Where a side facade has no windows due to incompatible uses or other reasons, ensure the blank facade uses quality materials and detailing or has a mural or pattern treatment.

g) Consider using lower rise forms such as townhouses as a transition to adjacent to low scale residential neighbourhoods, parks and open spaces.

New development that locates lower-rise forms next to existing houses (image: Copyright Queen's Printer for Ontario, photo source: Ontario Growth Secretariat, Ministry of Municipal Affairs)

Landscape buffers can take a variety of forms and be integrated into mid-block connections

Building Design & Articulation

The articulation of buildings contributes to human scale, animation, and adds a higher quality to the facade. Articulation considers the three dimensional qualities of the facade, including windows, doors, and architectural elements such as decoration, organization, the expression of interior spaces, structural expression, and even adjacent buildings. Appropriate design is independent of style. A crisply detailed, simple contemporary design can achieve the same objectives, in a different way, than a design that tries to mimic or carefully reproduce a historical style.

Guidelines

a) Use step backs, projections, textures, detailing and materials to articulate a clearly defined organization of the facade that includes:

- **Base:** defined within the first 3 storeys, the base contributes to the quality of the pedestrian environment through animation, transparency, articulation and material quality;
- **Middle:** the middle or body of the building creates the dominant character of the building and contributes to the overall streetscape;
- **Top:** the upper storey, roof or parapet of the building should be clearly distinguished from the lower floors, and should contribute to the visual quality of the streetscape.

Diagram illustrating base, middle and top of a building

b) A rhythm of vertical elements should create a fine grained character in buildings whose width is greater than 20 metres along the street frontage. This is important to create human scale.

Example of a building with strong vertical rhythm elements

c) Inset or partially inset balconies to offer greater privacy and shelter from wind, reduce the building's bulk, and minimize the impact of shadow on other amenity spaces below.

Partially inset balconies on a residential building

d) Integrate rooftop mechanical systems and penthouses into the design of the building such that they contribute to the roofline expression, or set them back or conceal them so that they are not visible from ground level.

Example of building with screened rooftop mechanical systems

e) Both street facing facades of a corner building should be articulated to the same high level of design. Architectural elements that respond to the corner, such as taller massing, are encouraged.

Corner building with articulation of the corner and equal level of treatment of both facades

Additional Residential Units

Additional residential units are generally permitted on a parcel of land containing a single detached, semi-detached or townhouse. Additional units may consist of an additional independent suite within the home, a suite above a garage (sometimes called a coach house suite or granny suite), or a suite in a freestanding accessory building (sometimes called a garden suite or laneway house). These additional guidelines apply to additional dwelling units.

Guidelines

a) Freestanding accessory buildings containing additional residential units should be designed to a high standard of quality. When built at the same time as the primary dwelling, the freestanding accessory building should use similar materials and finishes.

b) Locate freestanding accessory buildings containing additional residential units to preserve existing trees wherever possible.

c) Provide direct pedestrian access from the sidewalk or rear laneway to entrances for additional residential units. Signage indicating the address of the additional unit should be clearly posted.

d) Entrances for additional residential units within the primary building should generally be located from a side yard wherever possible.

e) In townhouses, entrances for additional residential units within the primary building should be located from inside the main entrance for the townhouse.

Coach house units along a rear laneway

Ground Level Relationships

The relationship of the building to the street is of critical importance to the quality of the public realm. Since buildings are experienced most profoundly at ground level, active uses at ground level are essential. Buildings should be sited and designed to create welcoming frontages and encourage street vitality, visual interest and safety.

Guidelines

a) Provide active uses facing the street at ground level for all non-residential and mixed-use buildings, with priority to retail, restaurant, hospitality, commercial or institutional uses that support high pedestrian activity.

Uses that support high pedestrian activity on the ground floor

b) For residential buildings, ground level uses facing the street may include lobbies and amenity spaces, as well as individual units with their own entrances.

Amenity areas or individual units facing the street

c) Promote an animated street environment with frequent doors, windows, and pedestrian-generating uses fronting directly onto the street.

Frequent doors, windows and pedestrian generating uses

d) Blank walls and mechanical rooms within buildings should never be located adjacent to sidewalks or streets. Avoid blank walls facing the street wherever possible. Building vents, gas meters and other utilities should not be directed towards adjacent pedestrian routes.

e) Ground floor frontages facing streets and public spaces (except for individual ground-related residential units) should be highly transparent, with around 75% clear glazing to maximize display areas, provide visual interest, and create a sense of connection to interior uses. Differentiate glass doors of main entrances from adjacent fixed glazing.

High ground floor transparency

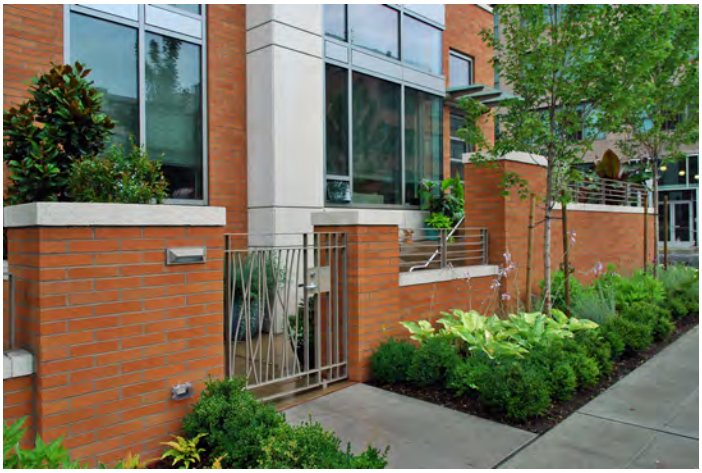
f) Where a non-residential building is set back from the street edge, the privately owned land should be designed as an extension of the public realm and include landscape treatment or pedestrian amenities such as seating, lighting, street trees and public art. Consider demarcating the more static furnishing zone from the active sidewalk zone.

Setback integrated into public realm of streetscape

g) Encourage weather protection through the use of awnings or canopies over the sidewalk, maintaining a minimum overhead clearance of 2.1 metres.

Awnings are encouraged for retail uses

h) Where residential uses are located at ground level, individual units should be articulated in the facade design and accessed directly from the sidewalk, with a semi-private front yard transition zone. The transition zone can include landscaping, grade shifts (with a means of ramped access), and low walls or decorative fencing.



Transition zone between sidewalk and individual residential units

i) Ground floor heights of all buildings other than low-rise residential, should generally be a minimum of 4.25 metres, to permit flexibility and long-term adaptability of the ground level uses over time to accommodate commercial or retail uses.

High ground floors allow more flexible and adaptable future uses

Landmarks & Gateways

To contribute to the creation of a sense of place and local identity, buildings at visually prominent, landmark and gateway locations should express a higher design standard.

Guidelines

a) Locate and design buildings to respond to specific site conditions and opportunities including irregularly shaped lots, locations at prominent intersections, corner lots, unusual topography, significant vegetation, views and other natural features.

b) Buildings at prominent locations or at main intersections, should be designed with elements that create a sense of arrival and establish a landmark character. The prominence may be expressed through building articulation, massing, materiality, etc.

c) Taller building elements at gateways and landmark sites/frontages are encouraged, such as towers, rotundas, porticos, change in building plane, overhangs, special rooflines, public art, and street wall height exceptions, where those elements exhibit:

- Compatibility with adjacent context, including appropriate scale;
- Compatibility with the principal building expression; and,
- Design excellence.

Corner articulation in a mixed-use building

d) New development and landscaping should frame rather than block public views of prominent natural features, landmark sites and buildings, public art and other prominent features.

e) Buildings at the end of long view corridors should be designed to terminate the view with a landmark building element such as a tower or massing element.

Landmark building element

f) Off street parking lots should be screened from the street edge at gateway or landmark locations.

Entrances

Ensure entrances are visible from adjacent public spaces and physically accessible for people of all ages and abilities.

Guidelines

a) Main building entrances should address public streets (or public spaces) and should be clearly articulated and expressed through architectural forms and detailing such as changes in massing and height, projection, shadow, punctuation and change in roof line.

Architectural expression emphasizing main entrance location

b) Weather protection should be provided through recess, canopy or overhang for main entrances to public buildings, offices, residential units and residential lobbies.

Canopy protecting major building entrance

c) Ensure all building entrances and transitions from outside to inside are barrier free and accessible through smooth grading of surfaces.

d) Establish a hierarchy of entrances across the site with primary entrances given prominence and differentiated architecturally from secondary and service entrances.

e) Architecturally differentiate residential entrances from business entrances in mixed-use buildings.

Entrance to residential units in a mixed-use building

f) Incorporate frequent entrances into commercial frontages facing the street.

Signage

Signs play a significant role in the character and animation of commercial areas. Commercial signage should be integrated into building design and be compatible with the rest of the streetscape.

Guidelines

a) Provide building address signage at all entrances.

Address signage integrated into building design

b) In general, signage should be designed, oriented and scaled to the pedestrian rather than the motorist, generally for viewing from the sidewalk.

c) Signage should be simple, coordinated across the site, and be designed and located to reduce visual clutter. Image-based/graphical signage should be used wherever possible to improve universal understanding.

d) Main building signage should face the public street.

e) Integrate signage into the organization and design of building facades by placing them within sign bands, architectural bays, friezes, etc.

f) Where there is retail at ground level, provide a sign band with a maximum height of 1.5 metres within the facade design of the first storey.

Signage integrate into a sign band as part of the facade design

g) Retail-commercial signage should be in scale with the building or storefront and use high quality materials.

h) Avoid neon signs, rooftop signs and signage that contributes to visual clutter.

i) Signage should not obscure windows, cornices or other architectural elements.

j) Graphic signs or words applied directly to windows should occupy a maximum of 25% of the window's surface area. Otherwise, windows facing a public street must maintain transparent glazing.

k) Sandwich board signs on or adjacent to the sidewalk should have a maximum height of 1.2 metres and should not obstruct the pedestrian clearway along the sidewalk.

l) Coordinate the design of monument/pylon signs with that of the buildings.

m) For multi-tenant sites, provide an overall signage strategy that coordinates the site and building signage, and limits the number of monument/pylon signs on a single site.

n) The location and illumination of signs should not interfere with traffic control devices.

Materials

The variety and selection of building materials contributes to visual interest along the street and to the varied architectural character of the corridors. Use durable, high quality materials, with detailing that fosters a sense of character and timelessness.

Guidelines

a) Choose materials for their functional and aesthetic characteristics to exhibit quality of workmanship, longevity, sustainability and ease of maintenance.

b) Use materials and fastening systems that are authentic to their purpose and neatly detailed. Do not use materials that imitate other materials.

c) For traditional building styles, choose materials and architectural details such as cornices, sign bands, lintels, etc. that are consistent with the chosen architectural style.

Consistent detailing of new construction in traditional style

d) For contemporary building styles, ensure materials are crisply detailed with consistent reveals. Inexpensive materials, in particular, must be used creatively and exhibit a high quality of application and fastening.

Consistent detailing of new construction in contemporary style

e) Changes of material should be purposeful and coincide with substantial massing elements or organizing lines of the building. Changes of material should not occur at building corners; a material return is preferred.

Facade material turns corner on additional visible building face

f) To create visual interest, consider using a dominant and 1-2 subordinate materials for the primary facade, in addition to glass and window surround materials for windows.

Dominant and subordinate material combination

g) Glass for windows or doors should not be mirrored or strongly tinted. Colouring of glass is discouraged and if used should be subtle.

h) Building walls abutting a vehicular access route or laneway should have a masonry skirt to protect the building from vehicular damage.

Site Considerations

Site Servicing

Vehicle access to buildings and properties, and servicing needs such as loading docks, garage doors and garbage, are necessary for mixed-use areas to function properly, but care must be taken to minimize their physical and visual impacts on the public realm and pedestrian life. A key consideration is consolidation of access to adjacent properties.

Guidelines

a) Access to parking and servicing areas should clearly prioritize pedestrian movement and the continuity of the public sidewalks.

Pedestrian priority established across vehicular access

b) Walkways to and from parking should be provided and clearly demarcated through materials and signage. Include connections for pedestrians and cyclists from sidewalks, trails, transit stops, parks, etc. to building entrances.

Pedestrian walkway clearly demarcated through parking lot

c) Underground, tuck-under, or structured parking is preferred over off-street surface parking.

Parking entrance for a townhouse/low-rise apartment complex

d) Bicycle access to parking structures should be provided. Consider a ramp gradient and width to accommodate bicycle traffic (e.g., 3 metre wide ramp with a slope of 6-7%).

e) Off-street surface parking should generally not be located between a building and the public sidewalk.

f) Vehicular parking access should preferably be from a lane or side street, especially for development facing Arterial Roads.

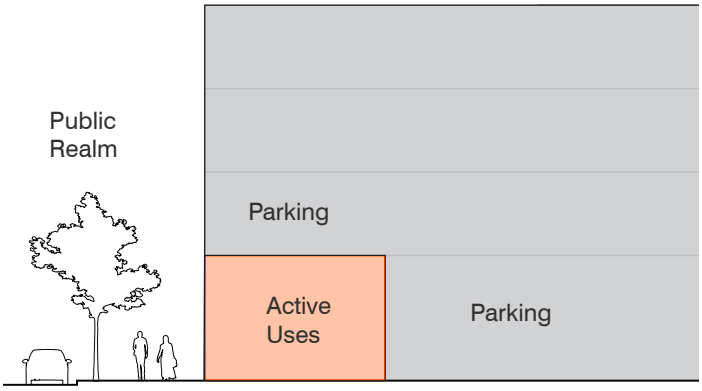
g) Wherever possible, provide access to parking and servicing through the creation of a shared laneway system, coordinated across multiple properties or through redevelopment.

Parking structure with retail uses facing street at ground level

h) Screen surface parking areas from adjacent public sidewalks and public spaces using materials that provide a visual buffer while still allowing clear visibility into the parking areas from adjacent sidewalks, and that meet Crime Prevention Through Environmental Design (CPTED) requirements, for example using landscaping, low screen walls, decorative fencing, a trellis, or grillwork.

Screening of surface parking area from adjacent sidewalk

i) Parking inside a building or parking structure should be separated from adjacent streets with a sleeve of active uses at ground level (e.g. retail). When an active use at grade is not feasible (at the City's discretion), the parking may be screened with attractive and decorative materials that integrate with the streetscape and design of the building.



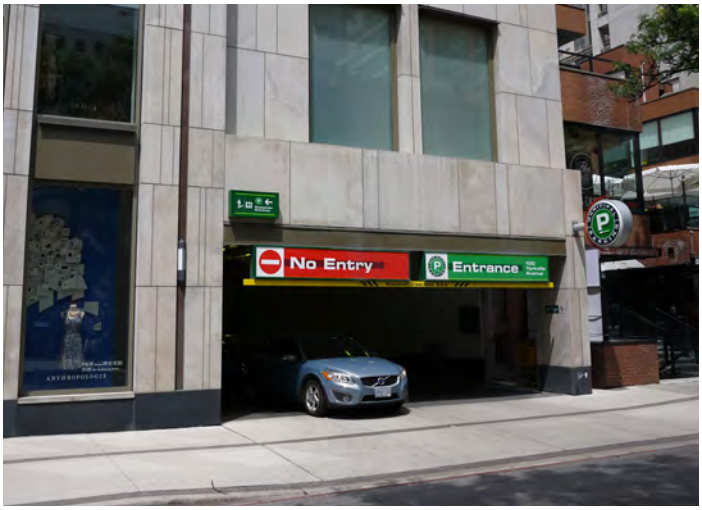
Active uses sleeve parking structures at ground level

j) Parking structure facades should be articulated with high quality design and materials that contribute to a positive streetscape.

Parking structure with rhythmic facade design (image: La Citta Vita, CC BY-SA 2.0, Flickr)

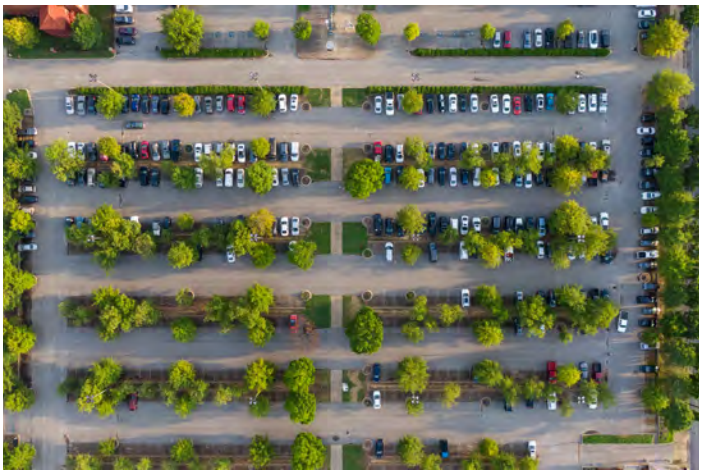
k) For larger buildings (such as government or administrative buildings, hotels or hospitals) requiring a dedicated waiting, or pick-up and drop-off area, locate them internal to the site, not in the public right-of-way.

l) Integrate vehicular entrances to a building into the building's architectural design.



Parking entrance integrated into building design

m) Break down large parking lots into smaller parts through the use of walkways, lighting and landscaping. Landscape assists with storm water management and canopy trees shade the parking lot. Set a shade target for parking lots to determine the landscape areas.



Landscape strips breaking up parking lot

n) Consider porous materials for parking lots, including permeable asphalt, porous concrete or other suitable aggregates.

o) Design parking lots as greener landscapes, integrating tree planting into the design, and taking into account mature canopy spread to maximize the potential canopy coverage of parking lots.

Large trees providing shade in a parking lot

p) Bicycle parking can be provided in bike parking rooms or externally with bike racks. Weather protection for external locations is preferred. Bicycle parking is ideally located at grade and should be easily accessed from the street. Bicycle parking areas should be co-located with elevators or entrances to ensure they are conveniently located along the path of travel.

Covered bicycle parking area

q) Locate utility meters, service meters, vents, telecommunications gear and other necessary mechanical equipment discretely and, where they are visible from public spaces, integrate them into the design of the building through techniques such as recesses, enclosures and under steps or porches, or screen them with landscaping or architectural elements.

Screening of utility meters next to a building entrance

r) Transformer boxes and any other service/ mechanical elements that must be separated from the building should be screened with landscaping or architectural elements.

s) Integrate garbage storage areas into the building design wherever possible, and screen them wherever they are visible from surrounding public streets and spaces.

t) Garbage enclosures should be fully enclosed with lid/roof. Doors should be supported by hinges, not wheeled.

Fully enclosed garbage enclosure

Shared Outdoor Amenity Areas

In buildings or developments with significant numbers of residential units without their own gardens, yards or terraces, shared outdoor amenity areas are important in providing nearby access to outdoor space for play, recreation and gathering, especially for families with children. These additional guidelines apply to larger multi-unit residential and mixed-use buildings.

Guidelines

a) Shared outdoor amenity areas should be provided for residential or mixed-use developments with over 20 residential units, where each unit is not provided with a private outdoor amenity area(s) (eg. front or back yard, rooftop terrace, balcony, etc.) of over 15 sq. metres, or for all residential or mixed-use developments of over 1 hectare in size.

b) Provide shared outdoor amenity areas at ground level in central, visible and accessible locations, preferably with frontage on a public or private street, walkway or mid-block connection. Mid-rise and high-rise buildings may provide a shared amenity area on a roof terrace.

c) Aim to provide a minimum of 4 sq. metres of shared outdoor amenity space per dwelling unit.

d) Locate and design shared amenity areas to maximize access to sunlight, and provide for comfortable use through shoulder seasons.

e) Connect shared amenity areas with open space on neighbouring properties, where possible.

f) Provide active uses, entrances and overlooking windows on building facades facing shared amenity areas.

g) Locate shared interior amenity facilities adjacent to shared outdoor amenity areas and provide windows and doors to create direct visual and physical connections between them.

h) Shared outdoor amenity areas should provide seating, shade structures or shade trees and play space for children.

Shared amenity space provided in a courtyard (image: Payton Chung, CC BY 2.0, Flickr)

i) Shared outdoor amenity areas should be designed as high-quality landscaped open spaces, with significant softscape and plantings.

j) Shared outdoor amenity areas should have lighting and other elements that allow them to meet safety and accessibility standards.

Green amenity area with playground

Shared amenity area on a roof terrace

Lighting

Building lighting can enhance the overall quality and character of the Mixed-Use Corridors. It should be fully integrated within site and building designs, make a positive contribution to the sense of safety and security of pedestrians, and provide supplementary lighting to street lighting.

Guidelines

a) Promote Dark Sky/Nighttime Friendly and bird friendly lighting practices to minimize light pollution and the intrusion of unwanted lighting on natural areas.

b) Illuminate storefronts, decorative building facades and architectural features by providing lighting on the face or interior of buildings.

Storefronts are well lit

c) Ensure lighting is sensitive to nearby residential uses and that there is no light trespass on adjacent properties. Avoid visible, glaring light sources by using down-and/or up-lights with full cut-off shields.

Bollard lighting is sensitive to nearby residential uses

d) Ensure all walkways and entrances are well lit.

Well lit building entrances (image: vulcanus - stock.adobe.com)

Public Art

Public art on private sites distinguishes the development itself, while enhancing the adjacent public realm, adding visual richness and providing landmarks within the community. It is also an important tool to celebrate local heritage and ground new development in the history and character of its context.

Guidelines

a) Public art should be negotiated for significant private development projects.

b) Private development projects could consider independent or public art integrated into the building design or its associated landscape.

c) Public art should be clearly visible and physically accessible to the public.

d) Public art should exhibit high quality construction, installation and materials, as appropriate for its intent.

e) Selection of public art and its possible location should include the involvement of the City of Peterborough's Public Art Facilitator to ensure consistency with the goals of the City's *Official Plan* and the *Public Art Policy and Procedures*, as amended (2022)

f) Public art should enhance the public realm through artistic excellence and originality, and be appropriate to the site or location's physical and cultural context.

g) Public art should not obstruct pedestrian, cyclist or vehicular circulation, entrances, windows, or sight lines to important natural and built features.

h) Public art should not impact, or be diminished by, existing or planned utility locations.

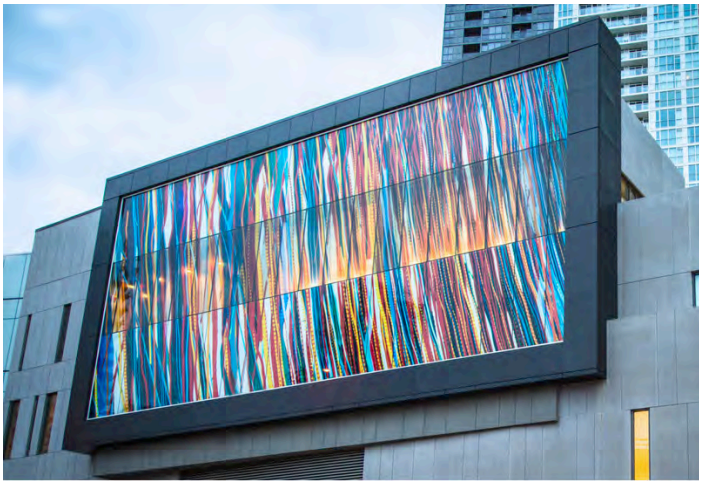
i) Appropriate maintenance procedures should be secured with the installation of public art.

Mariposa Public Housing Development, Denver

I See What You Mean by Lawrence Agent, Denver

The Audience by Michael Snow, Rogers Centre (SkyDome), Toronto (image: Caribb, CC BY-NC-ND 2.0, Flickr)

Time Cones by Brad Golden and Lynne Eichenberg, Toronto



Gardiner Streams by Catharine Harvey, Cityplace, Toronto

Rose Garden at the Four Seasons, by Claude Cormier + Associates, Yorkville, Toronto

Koilos by Michael Christian, Distillery District, Toronto (Copyright Queen's Printer for Ontario, photo source: Ontario Growth Secretariat, Ministry of Municipal Affairs)

Accessibility

Buildings and spaces open to the public must be accessible and useable by people regardless of age, ability or situation. Everyone should have access to goods, services, facilities, employment social activities and opportunities to move freely around the Mixed-Use Corridors.

Guidelines

a) New development must meet the accessibility requirements of the *Accessibility for Ontarians with Disabilities Act* (AODA), the *Planning Act*, the I*ntegrated Accessibility Standards Regulation*, any applicable *Zoning By-law(s)* and the *Ontario Building Code* (OBC).

b) Ensure pedestrian routes including those leading to building entrances are safe and easy to use by all people, including those using mobility devices and service animals. Routes should be direct, level, obstacle free, easily identifiable and physically separated from vehicular routes.

c) Provide accessible options for site furnishings, including seating and waste/recycling bins. Accessible seating will include armrests for assistance, backrests, and clear areas in front and to one side for people using mobility devices.

Accessible outdoor eating area

d) Locate accessible parking spaces close to building entrances, and provide clear and direct pedestrian routes into the building.

Clearly marked accessible parking spaces close to building entrance

e) Ramps should be avoided wherever possible. Where ramps are required due to challenging site grades, ensure ramps do not protrude into the public right-of-way or infringe on the pedestrian clearway.

Ramp does not extend into the public right-of-way

Safety

Building siting, orientation, and the design of spaces open to the public, should enhance feelings of personal safety and security.

Guidelines

a) Ensure Crime Prevention Through Environmental Design (CPTED) principles are applied to exterior spaces open to the public.

b) Structures, landscaping and plant materials should maintain an open field of vision between 1.0m and 2.5 metre above ground level, and should not provide hiding places. If elements such as fencing are within this range, ensure it is visually permeable.

An open field of view at eye level promotes observation and safety

c) Ensure the design of new development, through the placement of ground-level uses, entrances, windows and balconies, contributes to “eyes on the street” and allows for casual surveillance of streets, parks, open spaces, and children’s play areas.

Ampersand development, Barrhaven, Ottawa

d) Avoid blank, windowless walls that do not permit people to observe the street from inside buildings.

e) Provide lighting at all common entrances, in parking areas, along all internal walkways, and in laneways.

f) If necessary for security purposes, security measures such as grilles over ground floor windows, fencing or gates should be ornamental and complement the architectural expression.

Decorative security gate in a gabion wall

g) In parking areas, ensure clear views and sightlines are maintained, that there are multiple points of pedestrian and/or vehicular entry, that there are well-defined pedestrian routes, and that adjacent buildings have windows to provide overlook.

h) Avoid exterior stairs along walkways wherever possible to minimize trips and falls, especially stairs with 1 to 2 steps. Grade sites and use retaining walls where required to facilitate universal design for walkway networks with a maximum 5% running slope.

Building & Use Specific Considerations

Townhouses

Townhouses are a series of horizontally attached usually multi-storey units. Due to their massing, the number of attached dwelling units and number of direct access points to the street, townhouses require more guidance in order to ensure the massing and front elevation articulation relate to and enhance a pedestrian-scaled streetscape. These additional guidelines apply to townhouses.

Guidelines

a) Articulate the elevation and roofline of the townhouse block in a manner that provides variation between units and reinforces common characteristics that visually unite the block while delineating individual units.

b) Use continuous and consistent architectural details and materials for the entirety of the building.

c) Vary roofline and parapet details to break up the roof mass within a block.

Townhouse mass broken up by roof elements and articulation

d) Limit townhouse blocks to a maximum of 8 units or 8 stacks of units for stacked townhouses, with 6 units/stacks preferred. Back-to-back townhouses should be limited to 16 units total per block, with 12 units preferred. The length of a townhouse block should not exceed 50 metres to promote pedestrian connections, allow for landscaping and provide a break in the building massing.

Contemporary townhouses with variety of massing and materials

e) Provide a minimum separation distance of 3 metres between the ends of townhouse blocks.

f) Orient the main front entry of interior units to the adjacent street, private road or mid-block connection. Orient the entry of the end unit on a corner lot to the higher order street or open space.

g) Due to their prominence, end units on corner lots should include additional attention to detail such as enhanced entrances, wrap-around porches or window elements.

h) Townhouses facing arterial roads should have vehicular access from the rear or rear garages.

i) Where permitted, front garages should not exceed 65% of the width of the unit and should not protrude beyond the main front wall or the front porch of the dwelling unit. Only single-car garages should be permitted.

j) Pair front driveways to allow for more substantial front yard green space, where feasible.

k) Ensure rear lane accessed garages are complementary in design and building material with the principal dwelling.

l) Provide a walkway from the front entrance of dwellings to the sidewalk.

m) Consider using shared walkways between adjacent units to reduce the number of separate walkways.

Townhouses arranged around and fronting an open space

n) Townhouse blocks facing each other across open spaces, mid-block connections or common private lanes/roads should provide a minimum 15 metre separation distance between block faces.

o) Limit the number of steps to front entrances to 3-6 steps where possible.

p) Locate utility meters discretely and screen them from public view, preferably integrating them into the design of the block/unit (e.g. wall recess, enclosure, small roof overhang).

q) Alternatively, group utility and service meters in one discrete and screened location.

r) Provide space within garages or garbage enclosures for garbage bin storage.

s) Design garbage enclosures with similar forms, materials, and colours as the townhouses and locate them away from public view.

t) Mailboxes, visitor parking, and bicycle parking should be grouped in one location.

Stacked Townhouses

Stacked townhouses are typically 3 to 4 storey buildings of attached units which are stacked vertically one above the other and oriented to the street. This can include three units located on top of each other, a two storey unit stacked on top of a one storey unit, or a two storey unit stacked on top of two storey unit. Each unit has its own entrance at grade. Back-to-back stacked townhouses are two sets of stacked townhouses that share a rear wall. These guidelines apply to stacked townhouses in addition to the townhouse guidelines.

Guidelines

a) Limit stacked townhouse blocks to 8 attached stacks of units per block, with 6 stacks preferred. The length of the stacked townhouse block should not exceed 50 metres.

b) Locate and orient windows, decks, and balconies to limit overlook into nearby windows and amenity spaces of adjacent units or properties while enabling “eyes on the street” for common public areas.

c) Locate attached garages at the rear of the building to be accessed from a lane or private drive or provide underground parking.

d) Provide underground parking for stacked back-to-back townhouses with direct access to each unit.

e) Combine entrances for stacked units with a shared landing to reduce the number of individual entrance elements in the building facade.

Stacked townhouses with parking off rear lane

Stacked townhouses with combined entrances

Mid-Rise Residential Buildings

These additional guidelines apply to buildings 6 storeys or lower that only have residential uses, or wherever there are residential uses at ground level in mixed-use buildings.

Guidelines

a) Site and orient multi-unit residential buildings to overlook public streets, parks, walkways and private communal spaces while ensuring the security and privacy of its residents.

b) Apartment lobbies and main building entries should be clearly visible from the fronting street, have direct sight lines into them, and provide zero-step access. Where possible, apartment lobbies should have multiple access points to enhance building access and connectivity with adjacent open spaces.

c) Articulate individual units at ground level in the design of the facade and incorporate individual entrances to ground floor units in residential buildings that are accessed from the fronting street or public space. This provides easy pedestrian connections to buildings, encourages street use and walking and enhances safety.

d) Emphasize entrances to individual units through porches, covered stoops, cornices, transoms, side lights, and building massing.

e) Ground level units are encouraged to be designed with zero-step access wherever possible, even when not explicitly required by the Building Code.

f) Apartment buildings with zero-step access and elevators are encouraged over stacked townhouses or walk-up apartments.

g) Incorporate parking entrances and ramps into the building envelope. See additional guidance in the Site Servicing section.

h) Provide secure long-term indoor bicycle storage, secure short-term outdoor bike storage, and shelters with appropriate connections to buildings.

Mid-rise development in Richmond Hill


Stacked townhouses/apartments in the Plateau, Montreal


Apartment building in Technopole Angus, Montreal

High-Rise Residential Buildings

These additional guidelines also apply to buildings over 6 storeys in height.

Guidelines

a) Residential buildings above 6 storeys in height should generally have a podium and tower typology of built form.

b) The height of the base (podium) of high-rise buildings should generally be between 2 to 4 storeys.

c) In addition to the street wall stepback described in the preceding Street Wall section, to define the podium, there should be a minimum 2 metre stepback on all sides at the height of the street wall stepback.

d) High-rise buildings should also have a minimum 1.5 metre stepback for the top 1 or 2 storeys on sides facing streets and public spaces.

e) For portions of high-rise buildings above 6 storeys, maintain a separation distance of a minimum of 10 metres from side property lines to reduce shadow impacts, ensure sky view, allow for side-facing windows and maintain reasonable privacy for neighbouring buildings.

f) All sides of the upper storeys above 6 storeys should be articulated with windows, balconies, and/or architectural treatments consistent with public facing facades.

g) Incorporate parking entrances and ramps into the building envelope. See additional guidance in the Site Servicing section.

h) Provide secure long-term indoor bicycle storage, secure short-term outdoor bike storage, and shelters with appropriate connections to buildings.

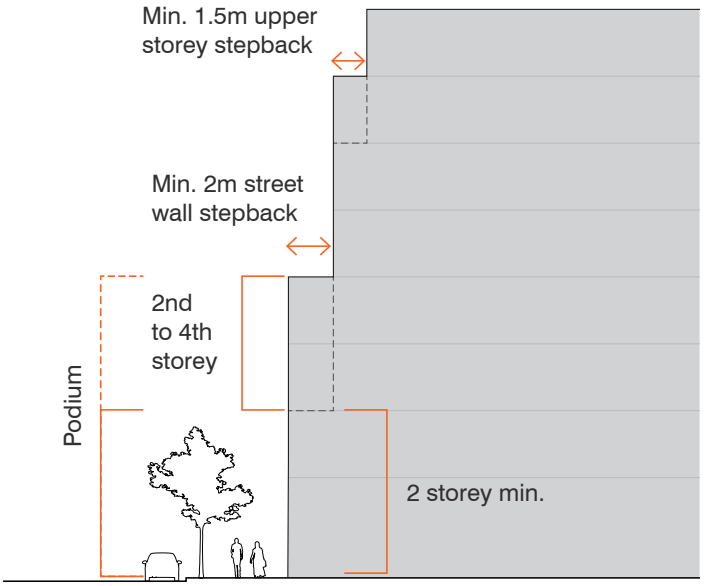


Diagram illustrating stepbacks for high-rise residential buildings

Clearly defined podium with a stepback

Adding definition to upper storeys with stepbacks

Commercial Sites

These additional guidelines apply to sites that contain one or more large format retail stores in either mixed-use or single-use configurations, as well as plazas on large sites containing multiple smaller retail stores.

Guidelines

a) Locate buildings or individual stores close to the primary frontage along the street edge, prioritizing corners, and establish a street wall.

b) Locate main entrances facing the public sidewalk of the primary frontage and provide direct pedestrian access from the sidewalk.

c) Buildings should be located and designed to screen parking from the public realm. In general, parking should be located at the rear of buildings, or in parking structures screened from the street.

d) Large floor plate commercial developments should incorporate frequent entrances and transparent shop front windows.

e) For stand alone retail buildings over 2,000 sq. metres in floor area, articulate the primary façade with a series of bays or shop windows to create a fine grained character to the frontage.

f) Design of large format commercial buildings should consider the following strategies:

- Incorporate smaller shops wrapped around the edges of the large format footprint.
- Locate the primary large format footprint above or below the ground floor.
- If the large format footprint is at ground level, include other uses above the ground floor, to better integrate the building and provide a greater density of uses and destinations.

g) Limit the length of building frontage along any street for single, large format stores to allow for more permeable site circulation and reduce the monotony of built form along the street.

Combining a grocery store, big box hardware store and other retail in a mixed-used development, Cambie Street, Vancouver (image: Payton Chung, CC BY 2.0, Flickr)

Smaller sized stores line the street edge, while large floorplate stores are located behind or above smaller stores

h) For sites over 4,000 sq. metres in area, or for sites with multiple retail buildings:

- Provide an interconnected internal walkway network that connects to all building entrances, parking areas, and adjacent public sidewalks.
- Walkways should incorporate a pedestrian clearway of a minimum of 2.1 metres in width.
- Provide 1.5-3.0 metre additional width next to walkways for substantial low landscaping and/or canopy trees.
- Clearly demarcate crosswalks at all street and driveway crossings.

i) Treat all facades facing primary, internal driveways as the primary building facade.

Incorporate substantial landscaping in surface parking lots and include internal walkways that directly link sidewalks on public streets to store entrances

Automobile-Focused Uses

Automobile-focused uses include a building or business which caters primarily to the needs of automobiles by providing fuel/gas, parts or products, repairs or servicing, facilities or services for washing, drive-throughs and the sale, lease or rental of automobiles. Where permitted, automobile-focused uses should demonstrate that they do not adversely affect the character of the existing and planned streetscape, contribute to an attractive streetscape, and contribute to the safe and efficient movement of pedestrians and cyclists. These additional guidelines apply to Automobile-Focused Uses.

Gas station with landscape buffer to street and retail component pushed towards street (Image: LightItUp - stock.adobe.com)

Guidelines

a) Within larger developments, locate automobile-focused uses away from corner locations wherever possible.

b) Provide a minimum 4.5 metre landscaped buffer between the edge of the right-of-way and parking/driveway areas or the main building elevation, including plantings, fences and/or low walls to screen these areas from public view and prevent the parking or storage of vehicles directly along the property line or in the right-of-way.

c) Provide a minimum 3.0 metre landscaped buffer adjacent to other uses.

d) Principal buildings of gas bars should be sited:

- Close to the front lot line and parallel to the side lot lines, with short facades facing the street;
- At the corner closest to the intersection and with the gas pumps/canopy structure located behind, away from the street frontage;
- With active and animated elevations facing and/or clearly visible from the public street;
- With storage areas facing the rear or side lot line; and,
- With consideration for present or future installation of electric vehicle charging station infrastructure.

e) Design car wash elements to minimize noise and spill over on adjacent residential areas.

f) Design principal buildings to include significant areas of glass/glazing and minimize the use of reflective glass.

g) Outdoor storage areas should be located behind buildings and screened from view from the street, residential uses or parks by fences or landscaping.

h) Shipping containers should be discouraged, and generally accessory buildings should be used for storage purposes.

Car dealership building pushed close to front lot line

Drive-Through Facilities

Drive-through facilities are a sub-category of automobile-focused uses which create issues that require more specific guidance. Drive-through facilities may include food, retail and banking establishments, as well as car wash facilities. The following guidelines apply in addition to the Automobile-Focused Uses guidelines.

Guidelines

a) Locate drive-through facilities at mid-block locations with queueing and drive-through lanes at the side or rear of the property.

b) For sites that contain two or more drive-through facilities, ensure clear separation of their respective driveways and queue lanes.

c) Locate queue lanes (and intercom stations) away from residential areas and outdoor amenity areas.

d) Ensure parking is available and visible to drivers entering queue lanes to provide a clear alternative to entering the queue.

e) Where possible, consider double drive-through lanes that merge into a single queue lane for pick-up.

f) Avoid locating queueing and drive-through lanes between the street and the building.

g) Provide queue lanes to accommodate the following minimum number of vehicles, or in accordance with the site specific traffic study or queue stacking analysis:

- 12 vehicle spaces for restaurants;
- 8 vehicle spaces for financial institutions; and,
- 3 vehicle spaces for other uses, such as pharmacies.

h) Provide separation between queue lanes and parking areas, with the use of raised medians, planting, fences and/or low walls to clearly demarcate queue lanes from parking areas even when painted lines may not be visible.

i) Buffer outdoor amenity spaces, such as patios from vehicle drive aisles and queue lanes with a minimum 2 metre planted strip.

Drive-through bank (Image: Oksana - stock.adobe.com)

j) For establishments where the service may also be provided to customers within the building, provide clearly marked and prioritized pedestrian paths to access the building from the parking areas.

k) Generally pedestrian routes should not cross queue lanes; if it has been demonstrated that there is no possible alternative, they should be located to minimize potential conflict, and should be designed to prioritize pedestrians, through the use of clear pavement markings, special pavement, signage and other cues to ensure safety.

l) Separate payment and pick-up windows where possible.

m) Block spill over of vehicle headlights onto adjacent residential properties, public streets and public spaces.

n) Provide weather protection for payment/pick-up windows.

o) Ensure car wash exits face away from abutting residential properties and are fully screened from neighbouring residential view.

Drive-through queue lanes (Image: Oksana - stock.adobe.com)

Corridor Specific Considerations

Lansdowne & Ashburnham

The Lansdowne Street East and Ashburnham Drive area is a gateway for travellers entering the city from the east and for visitors to the historic Peterborough Lift Lock, Trent-Severn Waterway the Peterborough Canoe Museum and Peterborough Museum and Archives. The area has the potential to turn into a mixed use neighbourhood with densities and corridors that better integrate public transit and active transportation.

Guidelines

a) Create a gateway at the intersection of Lansdowne Street East and Ashburnham Drive through the location and design of adjacent buildings and public space.

b) Buildings at the gateway intersection should be mixed-use, including retail or other active uses on the ground floor.

c) Locate highest building heights at the gateway intersection.

d) The tallest buildings, representing the highest densities, should face the primary streets where transit is located or planned. Generally transition to lower buildings away from the major streets, with the lowest buildings at the edge of the intensification area, adjacent to existing neighbourhoods.

Lansdowne & Clonsilla

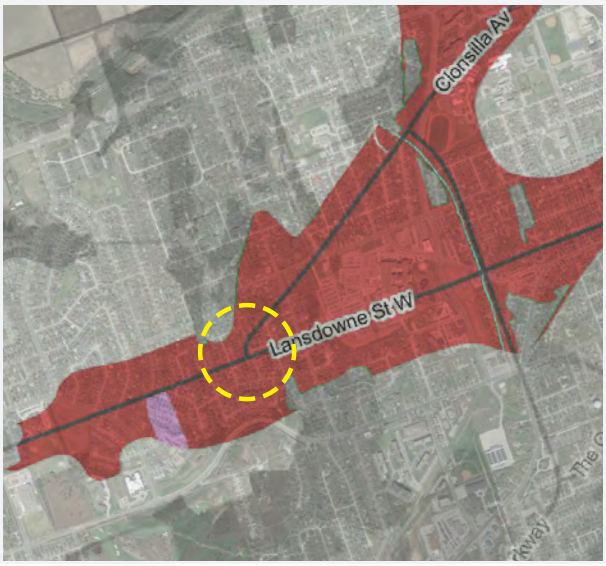
More than a 'location', the development of the Lansdowne Street West and Clonsilla Avenue intersection has the potential to provide a landmark, and act as a focus and hub for the neighbourhood.

Guidelines

a) Create a gateway at the intersection of Lansdowne Street West and Clonsilla Avenue through the location and design of adjacent buildings and public space.

b) Buildings at the gateway intersection should be mixed-use, including retail or other active uses on the ground floor.

c) Provide for a wide greenway on Clonsilla Avenue, preserving the hedgerow in front of the golf course and the green character of this street, and accommodating a multi-use path, innovative stormwater management, and small parks with seating, passive recreation, trails, gardens, and children's play (where buffered and safe).



Clonsilla & Sherbrooke

Clonsilla Avenue has the potential to turn into a significant mixed use corridor with higher densities focused along Clonsilla Avenue.

Guidelines

a) Locate the tallest buildings, representing the highest densities facing the primary streets where transit is located or planned.

b) Transition to lower buildings away from the major streets.

c) Locate smaller scale buildings, such as single detached, semi-detached and townhouses, adjacent to existing low-rise residential for compatibility.

d) Create active transportation connections through the green Parkway reserve, with frequent connections to neighbouring streets and destinations.

e) New infill development adjacent to the green Parkway reserve should face onto it with front doors, windows, porches, and walkways, to provide activity and “eyes on the street”.

f) Create small open spaces and/or community gardens to enhance the existing rental housing developments and provide linkages to the green Parkway reserve.

Chemong Corridor

The Chemong Road corridor offers significant potential to transform over time into a higher density, mixed-use area.

Guidelines

a) Buildings fronting on Chemong Road should be mixed-use, including retail or other active uses on the ground floor.

b) The southern part of the Chemong corridor should be a low-scale retail street with a village character.

c) The northern part of the Chemong corridor can be larger in scale, but with smaller retail footprints in an urban format and with shopfronts facing Chemong Road.

d) Explore the opportunity to locate a Community Hub at Chemong Road and Towerhill Road with a small urban square.

e) Mid-block walkways and pedestrian mews and landscape spaces should supplement the street pattern and connect open spaces to major destinations and transit corridors, helping to create a pedestrian-scaled and pedestrian-oriented neighbourhood.

f) Where there are greenfield areas behind the Chemong corridor, ensure they are designed to connect to mid-block walkways.

Parkill & Water

The area around Parkhill Road and Water Street has the potential to become a small commercial centre serving the local community.

Guidelines

a) Locate buildings close to the street edge to address the street, and create an attractive streetscape.

b) Buildings should have main entrances from the sidewalks, and have ground floor uses that help to provide interest at ground level.

c) Articulate facades facing streets to provide interest and have many windows. Rear lots and blank walls should not face streets.

d) In general, parking should be located at the rear of buildings, or in small courtyards if facing the street.

Hilliard & Water

The Hilliard Street and Water Street area has the potential for smaller scale infill intensification that fits with the existing structure and enhances the community.

Guidelines

a) Explore the potential to create a neighbourhood centre at the Water Street/ George Street junction, through street re-configuration, new public spaces, and new built form.

b) Locate small parkettes along Water Street to provide views and connections to the Otonabee River.

c) At the neighbourhood centre, small scale commercial or mixed-use buildings should face George and Water Streets.

d) In general, parking should be located at the rear of buildings, or in small courtyards if facing the street.

e) Preserve or protect for views at the ends of streets to create 'windows' to the Otonabee River.

f) Extend Inverlea Park north along the river as a trail, with multiple connections to Water Street and to the Rotary Greenway Trail.

Water Street Corridor

The Water Street corridor from Auburn Street to Woodland Drive includes a string of smaller parcels along the west side of the road with redevelopment potential.

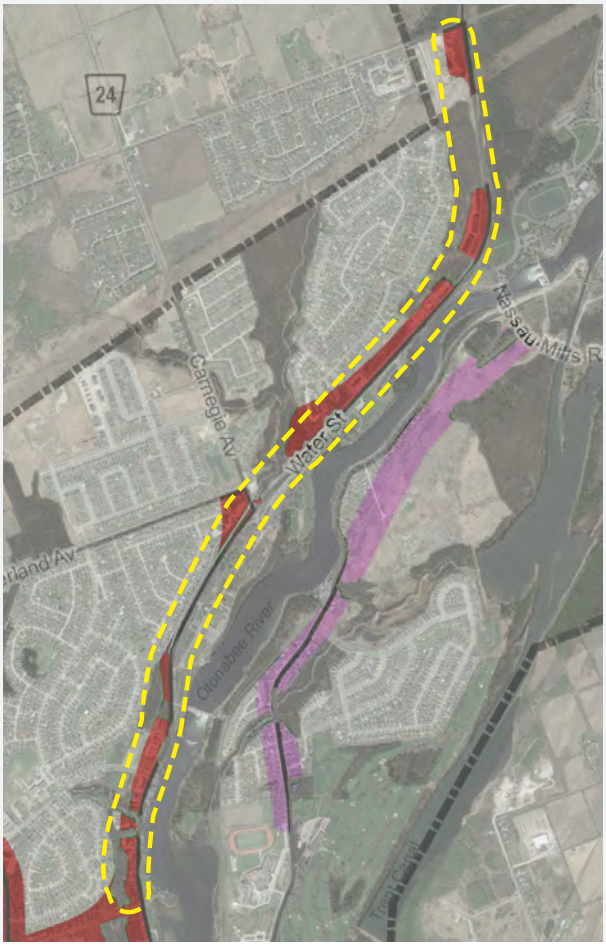
Guidelines

a) Set back new buildings with landscaping between the building and the street to preserve Water Street's green corridor character.

b) In general, parking should be located at the rear of buildings, or in small courtyards if facing the street.

c) Preserve views of the Otonabee River wherever possible.

d) Provide mid-block pedestrian or active transportation connections to adjacent neighbourhoods wherever possible.



Armour Road Corridor

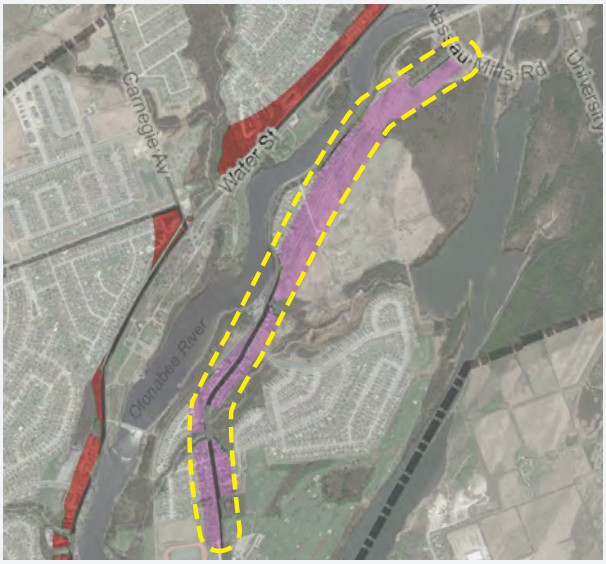
Armour Road is planned to be relocated away from the Otonabee River. The relocated road will act as a mixed-use spine for the adjacent future new residential areas being planned. Due to existing development, most potential development along the relocated Armour Road will occur on the east side. The west side of the road will include a dedicated cycling track in a landscape setting that functions as a buffer to existing houses.

Guidelines

a) Armour Road should be faced with mixed-use buildings, including retail or other active uses on the ground floor.

b) Taller and higher density buildings should be located towards the Nassau Mills Road and Armour Road intersection.

c) Ensure the street networks of future development are highly interconnected, with frequent intersections with Armour Road so that pedestrians, cyclists and vehicles can move easily through the community with a choice of routes.



5 Green Infrastructure & Buildings

While sustainability is an overarching objective throughout the Guidelines, this section provides guidance on green infrastructure and building practices and helps achieve the broad sustainability principles of the Official Plan.

Development in Peterborough should incorporate sustainable buildings and infrastructure to:

- Encourage the preservation, reuse and incorporation of existing buildings in new development to make use of their embedded carbon and zero carbon debt to minimize the carbon debt of new development.
- Protect and enhance local and regional ecosystems and biological diversity.
- Promote the responsible use of resources to ensure long-term sustainability, reduce greenhouse gas emissions, and reduce demands for energy, water, and waste systems.
- Demonstrate leadership in sustainable forms of green building design and technology, including the incorporation of renewable and alternative energy sources.
- Promote innovative residential and public building designs that contribute to energy reduction and natural resource conservation, green roofs, synergies between buildings, and site management practices.
- Protect the urban forest and the tree canopy and identify objectives for how it can be maintained, enhanced and expanded.
- Support opportunities for best management practices for stormwater to protect against flooding and erosion while improving water quality.

The Green Infrastructure and Building Guidelines apply to development by both the private and public sectors.

BedZED Eco Village, London, UK
(Image: Tom Chance, CC BY 2.0, Flickr)

Green Buildings & Sites

Promote innovative programs to encourage the design and construction of green buildings and sites that meet the City's goals.

Guidelines

a) Encourage innovative building designs which contribute to affordability and energy and natural resource conservation.

b) Encourage the use of third-party certification and rating programs, such as Energy Star, LEED® (Leadership in Energy and Environmental Design), BREEAM (Building Research Establishment Environmental Assessment Method), Zero Carbon Building (ZCB) Standards, Green Globes, Climate Positive Design's Pathfinder, or Passive House (Passivhaus) Certification.

c) Encourage the use of the full spectrum of LEED certification options by developers, current property owners and the City, including LEED for Cities, LEED for Neighbourhood Development (ND), LEED for Homes (H), LEED for Building Design and Construction (BD+C), LEED for Interior Design and Construction (ID+C) and LEED for Building Operations and Maintenance (O+M).

d) Redevelopment of sites in which there will be demolition should include a Life Cycle Assessment (LCA) that includes loss of embedded carbon. In addition to any third-party certification, all new construction should include whole life carbon costing.

Building with living walls on facade

LEED certification sign (Image: Tada Images - stock.adobe.com)

Energy Conservation

Minimizing energy consumption and clean, renewable electricity generation are key components of sustainability. On-site generation in new developments helps reduce GHG emissions from non-renewable power generation.

Guidelines

a) Where feasible, consider alternative community energy systems such as district energy, geo-exchange, sewer heat recovery, energy storage, air source heat pumps and/or inter-seasonal thermal energy.

b) Consider reducing demand for energy from the grid and encourage renewable energy production. Renewable energy sources that could be employed may include the use of solar thermal and photovoltaic equipment or wind power. Proposed alternative energy sources could be used in combination with energy from the grid.

c) Encourage passive solar building orientation to permit enhanced energy efficiencies by creating optimum conditions for the use of passive and active solar strategies. The integration of passive building systems is enhanced with buildings oriented to maximize the potential for sunlight and natural ventilation.

d) Consider constructing all low- and mid-rise residential buildings to be Solar Ready. Being Solar Ready means built with all the necessary piping and equipment that would be needed to install a rooftop solar power system.

Solar panels on the roof of low-rise residential development.

e) Reduce heat absorption through the use of cool roofs that are designed to reflect more sunlight and absorb less heat than a standard roof. Cool roofs can be made of a highly reflective type of paint, a sheet covering, or highly reflective tiles or shingles.

f) Cool roofing materials should have a minimum initial solar reflectance of 0.65 and minimum thermal emittance of 0.90, or for a low sloped roof (less than 1:6 slope), typical of commercial and institutional buildings, the 3-year aged Solar Reflectance Index (SRI) value should be a minimum of 15, and for steep sloped roofs (greater than 1:6 slope), typical of residential, the minimum SRI value should be 64.

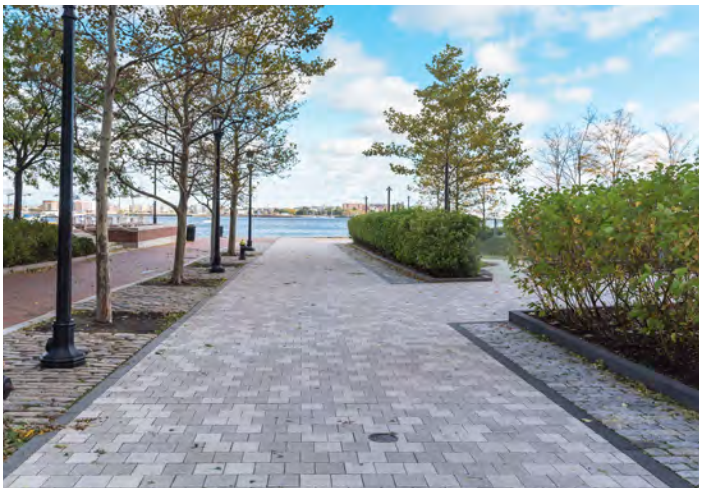
Cool roofing material

g) Green roofs are encouraged for larger multiple-unit residential buildings, office buildings, as well as, public institutional buildings to minimize surface runoff, reduce urban heat island effects, provide noise insulation, improve local air quality and opportunities for pollinator habitat.

Green roof on a commercial building (Image: Sookie, CC BY 2.0, Flickr)

h) In mid-rise and high-rise residential buildings, design roofs as barrier-free amenity areas.

i) Mitigate urban heat island effects through the use of light-coloured paving materials including white concrete, grey concrete, open pavers and any material with an SRI of at least 28. Consider light-coloured paving materials (without compromising contrast requirements) for parking areas, pedestrian walkways and urban squares.



Use of light coloured pavers to reduce urban heat island effects while maintaining contrast between walkway and furnishing zones

j) Consider paving driveways with light-coloured material to reduce urban heat island effects.

k) Prioritize the preservation of existing trees and provide deciduous trees to help with evapotranspiration and the shading of sidewalks and hard surface areas in the summer and solar access in the winter.

l) Use awnings to lower summer indoor cooling needs and energy use as well as providing shade to pedestrians during warm weather.

m) For residential buildings four storeys or more and non-residential buildings, at least 10% of parking spaces (including a minimum of one accessible parking space) should be equipped with electric vehicle charging stations. Consider designing all remaining spaces to enable future charging station installation (EV ready).

n) Provide electric vehicle charging in on-street and off-street parking stalls.

On-street EV charging station on a hydro pole, Toronto

o) Provide long-term, secure bicycle parking options in multi-storey residential and employment buildings. Indoor bicycle parking is preferred. Where appropriate, include e-bike charging stations.

p) Development of a Transportation Demand Management Plan may be required, with consideration given to share programs, carpooling, transit, remote/flexible work, end-of-trip facilities and active transportation options.

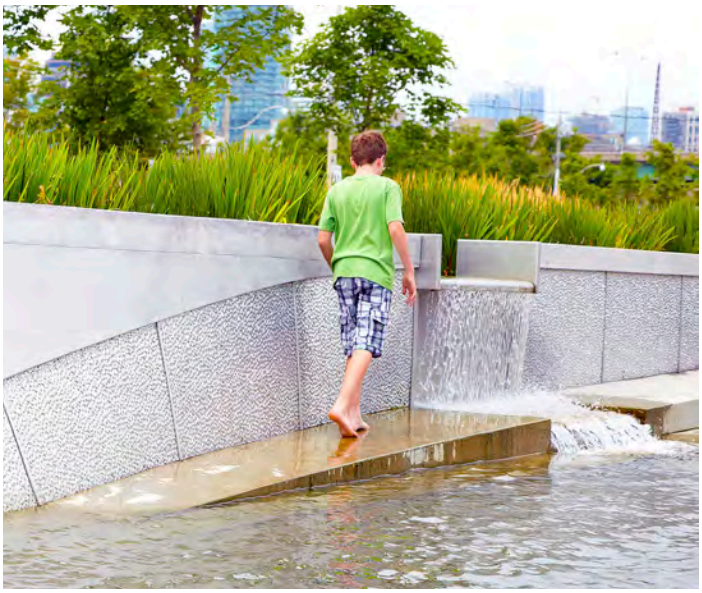
Water Use & Management

Reducing household water consumption reduces water utility costs and helps protect the natural water supply. Reducing impervious surfaces improves stormwater absorption, and retaining and treating stormwater runoff helps protect natural watercourses.

Guidelines

a) Standard Low Impact Development standards for the downtown include:

- Soakways, infiltration trenches and chambers;
- Permeable pavement/pavers;
- Perforated pipe systems; and,
- Rain gardens in the right-of-way.



Example of an innovative stormwater management facility.

b) Consider the following strategies for stormwater retention and run-off:

- Retain stormwater on-site through rainwater harvesting and on-site infiltration;
- Direct flow to landscaped areas and rain gardens and minimize the use of hard surfaces in order to reduce the volume of run-off into the storm drainage system;
- Store snow piles away from drainage courses, storm drain inlets, and planted areas; and,
- Use infiltration trenches, dry swales, and naturalized bioswales adjacent to parking areas to improve on-site infiltration.

c) Introduce green infrastructure, such as bioswales or bioretention planters, within the public right-of-way to enhance ground water infiltration and improve water quality as part of a comprehensive water management plan.

Bioretention planters for stormwater management, Portland OR

d) Use perennial plants in bioswales and other planting areas to bind soil together, prevent washing out of soils, and improve absorption.

e) Consider the inclusion of third pipe greywater systems and rain water harvesting, for watering lawns and gardening, to reduce demand on potable water use.

f) Implement a rainwater harvesting program to provide the passive irrigation of public and private greenspace, including absorbent landscaping, cisterns, rain barrels, underground storage tanks, infiltration trenches, etc.

g) Consider the use of permeable or porous pavement instead of standard asphalt and concrete as a stormwater run-off management strategy that reduces the impact of urban development on the natural hydrological cycle.

Permeable paving used on a street

h) Permeable or porous pavement options with minimal jointing (e.g., permeable concrete or asphalt) should be considered for accessible parking spaces, exterior passenger loading zones, access aisles and pedestrian clearways to ensure the surfaces meet accessibility requirements.

i) Consider the installation of subsurface basins below parking lots to enable stormwater to be stored and absorbed slowly into surrounding soils.

j) Where feasible, implement curb cuts along sidewalks and driveways to allow water to flow into planted zones or infiltration basins, while ensuring a guiding edge is maintained for people with disabilities. Tactile attention indicators may be required in some circumstances.

Curb cut allowing rainwater runoff into planting area, Portland OR

k) Encourage water conservation measures in new development, including:

- Targeting 10% greater water efficiency than the Ontario Building Code and encouraging through appropriate incentive programs, 20% greater water efficiency than the Ontario Building Code;
- Restricting the use of potable water for outdoor watering;
- Promoting the use of native, water efficient and drought resistant plant materials (xeriscaping) in parks, along streetscapes, and in public and private landscaping;
- Avoiding use of turf grass areas, and when required, installing drought resistant sod; and,
- Increasing topsoil depths and providing soil scarification.

Air Quality

To minimize the air quality and climate change impacts associated with development, the following measures are encouraged.

Guidelines

a) Reduce the impact of air pollution by encouraging the creation of a 'complete' community that is characterized by greater densities placed at mixed use nodes, and near transit facilities; mixed land uses; a mix and diversity of housing types; and a connected and walkable road network that is designed to encourage active transportation.

b) Encourage and promote alternative modes of transportation such as public transit, walking, rolling and cycling by providing infrastructure and amenities in key areas.

c) Ensure there are transit options within a 400 metre (5 minute) walking distance of all parts of the Mixed-Use Corridors.

d) To promote transit ridership, programs such as developer-sponsored transit passes at reduced-costs for each residential unit or employee are encouraged.

e) Ensure the separation of sensitive land uses from air pollutant sources through land use planning and zoning. Refer to the Ministry of the Environment guidelines.

f) Minimize the number of parking spaces and overall impact of car parking:

- Mixed use developments should include shared use of parking among uses that have different peak use characteristics;
- Design parking areas so they are not the primary visual component of a neighbourhood;
- Reduce the parking ratio required in areas that are served by transit; and,
- Dedicate priority 5% of the total parking spaces for carpool, ride sharing, and ultra low emission vehicles
- Adhere to bicycle parking requirements for developments and public spaces..

Peterborough Transit bus at a bus stop (image: City of Peterborough)

Canopy protecting bicycle parking area

Signs marking parking for EVs and carpool users

Bird-Friendly Design

Many birds die or are severely injured trying to fly through glass or glass-like structures that reflect vegetation or open sky. Light pollution can have a negative impact on migratory birds, confusing their sense of direction and disrupting breeding and reproduction. Mitigations should be implemented that minimize the danger to birds.

Guidelines

a) Avoid untreated reflective glass or clear glass that reflects trees and the sky.

b) Use etched glass, fritted glass, screening or shutters to reduce reflections.

c) On existing glass or where etched or fritted glass, screening or shutters are undesirable or impractical, use visual markers on the exterior surface of glass in a dense pattern (ideally with a maximum gap of 5 centimetres).

d) Glass should not be reflective within the first 12 metres of building height, or to the height of adjacent vegetation.

e) Follow dark-sky-compliant lighting practices, including full cut-off fixtures to limit light spillage.

f) Locate and manage lighting to reduce reflections that might confuse migratory birds.

g) Turn off unnecessary indoor lighting during bird migration seasons (spring and fall). Also consider reducing outdoor lighting levels to minimum safety requirements during bird migration seasons.

Bird-friendly glass on a new building in Ottawa

Visual markers applied to a large window (image: Kawartha Wildlife Centre)

Material Resources & Solid Waste

Reduction of waste, diversion of waste from landfills and increasing recycling and reuse can help reduce the impacts of solid waste on the environment by conserving energy, reducing disposal costs, and reducing the burden on landfills and other waste disposal pathways.

Guidelines

a) Consider the use of recycled or reclaimed materials for new infrastructure including roadways, parking lots, sidewalks, unit pavings, curbs, water retention tanks and vaults, stormwater management facilities, sanitary sewers, and/or water pipes.

b) Reduce waste volumes through the provision of recycling/reuse stations, drop-off points for potentially hazardous waste, and centralized composting stations.

Comprehensive recycling station

Provide on-site sorting facilities in multi-unit residential buildings

c) In large buildings, such as multi-unit residential buildings and institutional or public buildings, provide on-site recycling facilities for the handling, storing, and separating of recyclables.

d) Recycle and/or salvage at least 50% of nonhazardous construction and demolition debris and locate a designated area on site during construction for recyclable materials.

Urban Agriculture

Urban agriculture such as community gardens provides the opportunity for an alternative use of green space and can act as a transition between land uses.

Guidelines

a) Promote initiatives such as sustainable food production practices as a component of a new development. Development plans and building designs are encouraged to incorporate opportunities for local food production through:

- Community gardens;
- Edible landscapes;
- Small scale food processing, such as community kitchens, food co-ops, and community food centres;
- Food-related home occupations/industries;
- Small and medium scaled food retailers; and,
- Local market space (i.e., a farmer's market).

b) Incorporate urban agriculture as part of a neighbourhood's character and open space system, while also providing a transitional use between the natural and built environments.

Farmer's markets support access to fresh produce.

Rooftop vegetable gardens support local food production

Community gardens support local food production

6 Tree Planting

Trees beautify the environment, provide psychological benefits and promote physical health in people. They perform infrastructural roles including stormwater management through root uptake and respiration, urban heat island attenuation through shading, provision of habitat for avian and insect populations, and increase resiliency in the face of climate change. They have measurable economic value that increases exponentially with age, while producing oxygen, recycling water, and providing erosion control. In addition, trees support active transportation and transit-supportive goals by creating a comfortable environment for pedestrians and cyclists.

Creating tree-lined streets should be a fundamental principle for the City of Peterborough. In a streetscape filled with street furniture, signs, poles and other above ground utilities, and underground utilities sometimes using space across the entire right-of-way, trees must be included among the essential functions of a street and allocated sufficient space to perform their function. They cannot be an afterthought.

Guidelines

a) Appropriately balance street trees with the other elements of public infrastructure in the streetscape.

b) Make every effort to provide sufficient soil volumes and appropriate growing conditions for trees, with careful consideration of tree locations and the application of new engineering practices that prioritize soil volumes, quality soils, and access to water and aeration.

c) Where necessary, use structural soil cells, specialized modular structures designed to bear the weight of paving and above ground infrastructure in order to provide large, non-compacted soil volumes under the sidewalk.

The Urban Forest System

The City should focus on the urban forest as a system and promote the principles of biodiversity and growth rate stratification when selecting tree species. Biodiversity is founded on ecological principles with a host of benefits, but of particular importance is the establishment of resiliency. Many species today are under threat from pests and diseases (for example, Asian Longhorned Beetle, Oak Wilt, Gypsy Moth, Emerald Ash Borer), and diversity will help to ensure the urban forest system is more resilient and remains green.

Growth rate stratification is based on the fact that different species grow at different rates and have different life expectancies. Generally, fast growing species are shorter lived than slow growing species. By mixing both types along streets, it ensures that a green canopy is achieved as quickly as possible, and that it remains green, because when the fast-growing species reach the end of their lives, the slower growing species will have reached their mature size.

The City of Peterborough has had a history with forecasting canopy coverage targets. These targets, while important, can be difficult to achieve. To implement more achievable standards for enhanced environmental benefits, the City is considering both two-dimensional canopy cover targets, and three-dimensional targets of leaf area index and overall leaf production.

Guidelines

a) To support a more biodiverse and resilient urban forest system, use ISA best practices for species selection:

- no more than 30% from the same family;
- no more than 20% from the same genus; and
- no more than 10% from the same species.

b) Use a growth rate stratification strategy for street trees, parkland and naturalized areas.

c) Monoculture plantings of a single species should not be used so future pathogens do not cause widespread mortality.

d) Species with potential for problems with future

pests and pathogens should still be planted, but must not be overplanted.

e) Implement growth rate stratification by mixing fast growing and slow growing species along streets.

f) Conduct an urban forest inventory in order to understand the strengths and vulnerabilities of the local tree canopy - this will require a significant investment of staff and other resources.

Trees contribute to comfortable microclimates

Varied species of canopy trees forming green tunnels along intersecting streets, Vancouver

Tree Species Selection

Trees provide the most benefits to the community when they can grow for many years and attain their natural mature size. To support the potential for mature tree sizes, tree species selection should be performance based, with the right tree matched to the right location. The City of Peterborough has developed a list of tree species suitable to different applications in various urban environments to ensure no overdependence on a handful of particularly resilient species. This will ensure the municipality can achieve a healthy urban forest with sufficient built-in diversity and subsequent resilience to future landscape pests. These recommendations can be found in the City's document *Tree Planting: Installation and Establishment and Recommended Species List for Street, Park and Site Plan Trees*

Guidelines

a) Use tree species selected from the lists in the City's *Tree Planting: Installation and Establishment and Recommended Species List for Street, Park and Site Plan Trees*

a) The selection of trees for individual sites must give careful consideration to the existing conditions and potential barriers to their success, including:

- soil type;
- moisture;
- available growing space above and below ground; and,
- proximity to sidewalks, roads and utilities.

b) On extremely harsh planting sites like urban boulevards surrounded by paving, use only a short list of resilient tree species.

c) For planting sites in parks or garden beds, use a much longer list of tree species.

d) As not all trees are suitable for all locations, tree species should be selected which possess the characteristics that most closely meet the environmental conditions of each site, with the gradient of diversity increasing as the quality of the planting site increases.

Tree Location & Spacing

The ultimate goal is for trees to act as an urban forest system performing infrastructural benefits. This is significantly enhanced when canopies of individual trees connect.

Guidelines

a) Tree spacing is recommended at 8 to 12 metres on centre, depending on species growth rate expectations.

b) Most trees within the street rights-of-way will be located in the Landscape/Furnishing Zone. Exact locations within this zone will need to carefully consider the soil volume, adjacent entrances and driveways, and summer shading/winter heat gain, balanced with the general goal of maintaining a regular rhythm of trees along blocks.

c) Due to the importance of achieving better tree canopy cover targets, maintaining a steady rhythm of tree planting within the pedestrian realm, and of balancing both sides of the street, the presence of overhead power lines should not preclude the planting of trees below. With respect to tree planting under overhead power lines:

   – Height stratification guidelines should dictate what can be planted in these conditions; and,

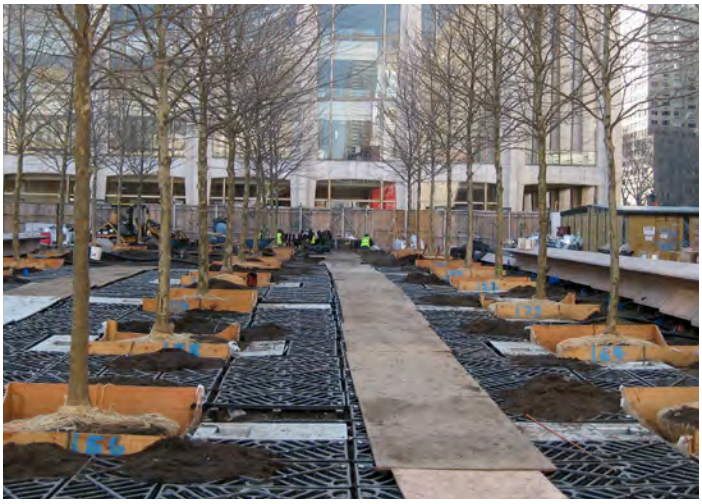
   – While smaller stature trees will usually fit beneath power lines, there are canopy trees that should also be considered that inherently display branch form/architecture that successfully navigates power line obstruction (eg. Kentucky Coffeetree, *Gymnocladus dioicus*).

Tree planting in open beds along a residential street

Maintaining tree spacing through different conditions along Canboro Road in Fenwick

Soil

The biomass of urban trees that we see above grade, which includes the trunk, branches and leaf volume, is approximately equal to the biomass below ground, which includes the root network. Tree roots are opportunistic and will fill the available space, so the shape of the soil volume can be different from the canopy shape. This means that soil volumes can be provided in long, linear, connected trenches beneath or adjacent to the sidewalk surface.



Soil cell installation at Lincoln Center New York (image: DeepRoot, CC BY-NC-ND 2.0, Flickr)

Guidelines

a) Soil volume for canopy trees should be 30m^3 per tree, or 20m^3 per tree if soil volumes are shared. 20m^3 of soil volume will still support a large tree, though at a lesser growth potential.

b) If only reduced soil volumes can be achieved, smaller types of trees should be considered.

c) Soil volume should be within 1.4 metres of the surface.

d) Irrigation systems are not generally recommended, but it is critical to the long term health of trees to provide weekly watering during the first two years.

e) Soil pH levels are important for nutrient uptake, but appropriate levels vary depending on species. Match the soil pH level to the requirements of the species being planted.

f) Soil Organic Matter content should be 3-10%.

g) Soil can be amended at time of planting with mycorrhizal inoculant.

h) Roots require air and therefore soil must be well drained. Soil should drain within 24 hours of rainfall events. A Draw Down test must be used to check drainage during construction, prior to tree installation, to confirm adequate drainage. Appropriate mitigation is required if soil does not drain, as it is too late to do this after construction is complete.

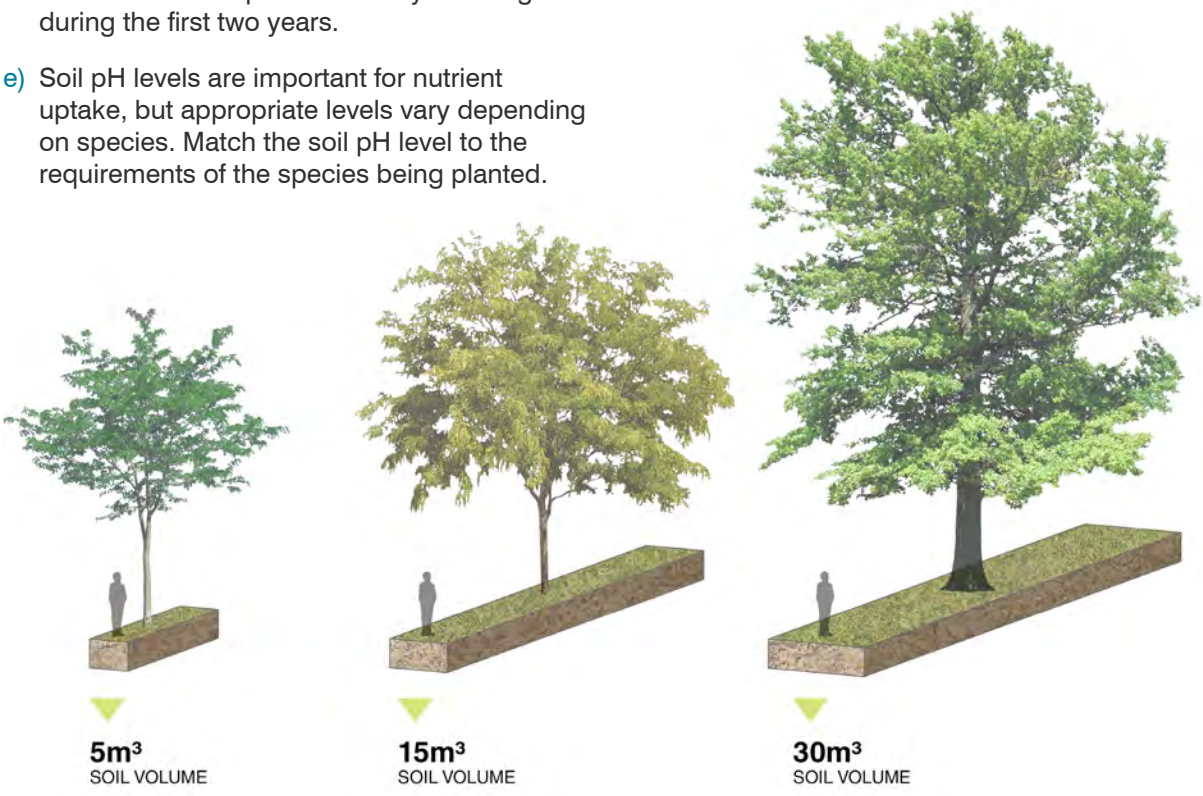


Diagram illustrating the relationship between uncompacted soil volume and tree size

Planting Typology

Planting typologies are intended to maximize the uncompacted soil volume for the planting location's context. Where access to sufficient soil volume is restricted, structural soil cells can achieve the required soil volumes by allowing uncompacted soils to extend under the sidewalk or paved surface, areas that would otherwise be unavailable to tree roots. Soil cells have significant benefits both for the long term health of the urban forest, and for increasing growth rate and reducing 1-5 year stunting. Soil cells add significant cost, so their use should be carefully considered, and the costs should be built into tree planting budgets in areas where they will be required.

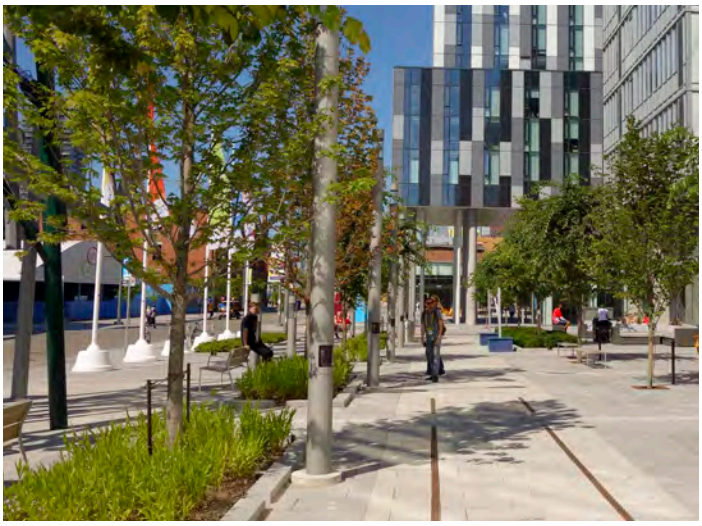
Guidelines

a) Wherever possible, street trees should be located in softscape areas behind the sidewalk, including, if necessary, on adjacent land outside of the right-of-way. Access to larger soil volumes provide the best opportunity for trees to achieve their full potential.

b) Use open planting beds on streets with less pedestrian traffic. This provides space for multiple trees to be co-located within a consolidated soil volume. Consider including a continuous soil trench under the sidewalk to maximize soil volume.

c) Use flush curb edges for open planting beds to allow stormwater runoff to irrigate the soil area, or provide curb cuts to permit runoff to enter the planting bed.

d) In areas of high pedestrian volumes, restricted space, and/or on-street parking, use tree grates with structural soil cells to achieve the required soil volumes by allowing uncompacted soils to extend under the sidewalk surface.



Tree planting along Front Street in the West Don Lands, Toronto

Tree planting in front of residential entrances in the West Don Lands, Toronto

Planting Details

It is important that the City's standard planting details reflect current best practices to give newly planted trees the best chance to thrive. The City of Peterborough has developed planting details that include trees and shrubs. These are working toward better planting standards within the municipality, and ultimately toward more successful plantings and gardens across the City. These can be referenced in the documents: *Tree Planting: Installation and Establishment and Recommended Species List for Street, Park and Site Plan Trees*

Guidelines

a) Tree grates and paving details must allow adequate space for future trunk flare.

b) Trees should be planted with the trunk flare above finished grade (top of rootball should be planted 2 to 4 cm above grade to allow for settlement).

c) Ensure the trunk is plumb.

d) Specimens should be balled in burlap.

e) Temporary tree guards can be used after tree transplant to protect trees from snow removal operations, bikes, and vandalism. Tree guards should not touch the tree or constrain growth in any fashion, and should be removed after approximately 5 years or when the tree reaches 30cm diameter at breast height.

f) Tree guards must be appropriately fastened and anchored, and they must do so without negatively affecting the future growth of the tree. These can be used in conjunction with tree grates, and also standing alone in open pits. Annual inspection is critical to determine when the guards would be removed to support tree maturation over time.

Tree planting along Canboro Road in Fenwick

Tree grate with tree guard along Canboro Road in Fenwick

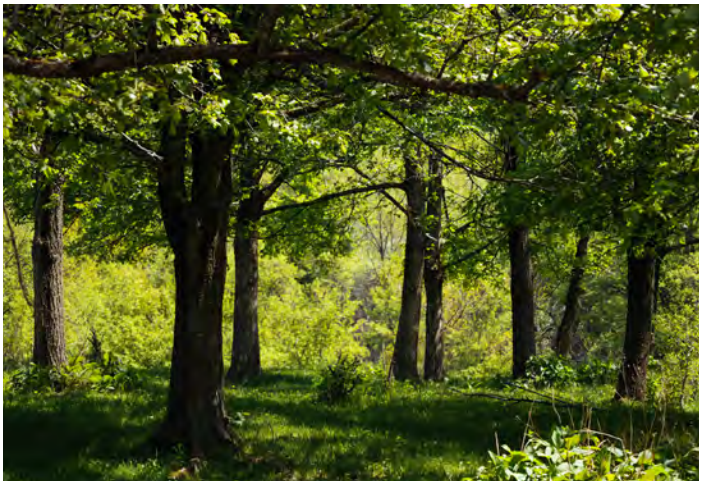
Planting in Natural Areas

Native species often do better in undisturbed soil, and tend to be less tolerant of the imported and compacted soil that is often found in streetscapes and new subdivisions. Many native tree species which do not have suitable qualities for parks or streets, but are valuable habitat or food sources for pollinators and wildlife can be planted in or adjacent to naturalized areas. For example, some native species produce an abundance of fruit that can stain pavements at certain times of the year. These species should still be planted, as they are important to wildlife lifecycles, but they should be sited within an awareness of their characteristics. Invasive species which have negative impacts do the most harm when they escape cultivation into the habitat of native species which they are able to outcompete.

Guidelines

a) In naturalized areas, particularly in proximity to shorelines and forested areas, native species should be planted. In particular, the species of trees for planting near riparian areas should be carefully considered.

b) Refer to GreenUP, Choosing the Right Tree in Peterborough, Ontario for more information on species planting lists or specific recommendations.



Only native species should be planted in naturalized areas

Planting in Waterfront Areas

Planting trees in waterfront areas requires additional care to ensure that potential flooding and wetter conditions are taken into account, and that invasive species are avoided.

Guidelines

a) Take into account local water tables and floodplains in selecting appropriate tree species. Many species which are urban and drought tolerant are intolerant of standing water.

b) Some species which are tolerant of flooding like silver maple, river birch, poplars and willows, have other characteristics which can be problematic, like weak wood or poor disease resistance. These species should only be used if they can be located in areas where their vulnerability to storm damage will not cause safety hazards.

c) Some desirable native trees like Red Maple, Hackberry, Swamp White Oak and Black Gum can do well in wet conditions, but adaptation to flooding will depend on the source of seed stock. This requirement should be communicated with the supplier, and locally adapted specimens grown in flood prone habitats should be sourced.

d) Some non-native trees, like Dutch-Elm Disease resistant hybrid elms, and hybrid soft maples are appropriate for waterfront areas, but care should be taken to avoid using any species with invasive qualities near riparian areas.

Trees at East Bayfront Promenade planted in soil cells, Toronto (image: DeepRoot, CC BY-NC-SA 2.0, Flickr)

Tree Preservation

Existing trees are the greatest asset of the urban forest, and new developments should attempt to preserve healthy mature trees where they are not located within proposed building envelopes.

Guidelines

a) Opportunities to preserve trees should be looked at early in the approvals process to increase the likelihood of success.

b) When existing trees must be removed, replacement tree plantings should strive to provide equivalent benefits to the community.

c) Consult the Council of Tree & Landscape Appraisers guide to plant appraisal for determining the value of existing trees when preservation or replacement plantings are not possible.

d) Existing tree preservation should prioritize large mature shade trees, trees which may have heritage value, native trees, and trees which can be managed as a group. In particular, the preservation of trees located at the perimeter of lots can often provide buffering between properties.

e) Tree preservation planning should consider the extent of the tree above and below ground, and the understanding that development can impact the roots of trees on adjacent properties. The critical root zone (CRZ) can be understood as a measured circle around a living tree that represents the minimum rooting area than is essential for its structural integrity and capability to remain alive and upright. The CRZ should be determined in consultation with an International Society of Arborists (ISA) certified arborist or other qualified person. However, a tree protection zone (TPZ) can be modelled as a function of the trunk diameter at breast height (DBH) and used as a guide for protection of trees during development. The ISA recommends a standard TPZ of 30cm of offset per 2.54cm of diameter.

Mature trees preserved during streetscape renewal of Canboro Road in Fenwick

7 Street Guidelines

The Mixed-Use Corridor Urban Design Guidelines for streets are based on the concept of complete streets. As set out in the City's Transportation Master Plan, complete streets are planned, designed, constructed, operated and maintained for all transportation modes, and users of all ages and abilities. Complete Streets focus on place-making and ensure districts and communities are connected.

In the Mixed-Use Corridors, the primary focus is on accommodating pedestrians and active transportation users, ensuring that all can safely move through Peterborough on beautiful streets. Pedestrians include people on foot and/or using an assistive device.

This chapter sets out guidelines for input to detailed design for the key streets. General guidelines can be applied to all streets with more direction provided for:

- Lansdowne Street West
- Lansdowne Street East
- Clonsilla Avenue
- Charlotte Street
- The Parkway
- Chemong Road
- Reid Street
- Hilliard Street
- Water Street

These guidelines will be superseded by Complete Streets guidelines that may be prepared by the City.

General Guidelines for Streets

Complete Streets

Streets should be designed to be complete streets as part of a network that facilitates the movement of people and goods in an integrated, safe, comfortable and accessible manner, while also providing a public realm that supports business and recreational use.

Guidelines

a) Apply complete streets design principles and guidelines, as per the City's Transportation Master Plan, for Mixed-Use Corridors.

b) Integrate protected infrastructure features at main intersections along Mixed-Use Corridors. Where these corridors meet local roads and driveways, provide continuous sidewalks/multi-use paths to give priority to pedestrians and slow turning traffic.

Pedestrian Clearway

The Pedestrian Clearway is an essential zone of the street to allow for the safe, accessible, and efficient movement of pedestrians. The Pedestrian Clearway should remain free and clear of obstacles at all times so that pedestrians can travel in a direct, continuous path.

Guidelines

a) An unobstructed pedestrian clearway should be maintained with a minimum width of 2.1 metres which allows for the passing of two people using assistive devices, or two people pushing strollers.

b) Space for street furniture, trees, and spill-out areas for businesses must be in addition to and not infringe on the clearway.

c) A reduced minimum clearway of 1.8 metres may be permitted on local streets with primarily residential uses.

Special paving across an intersection in Pelham

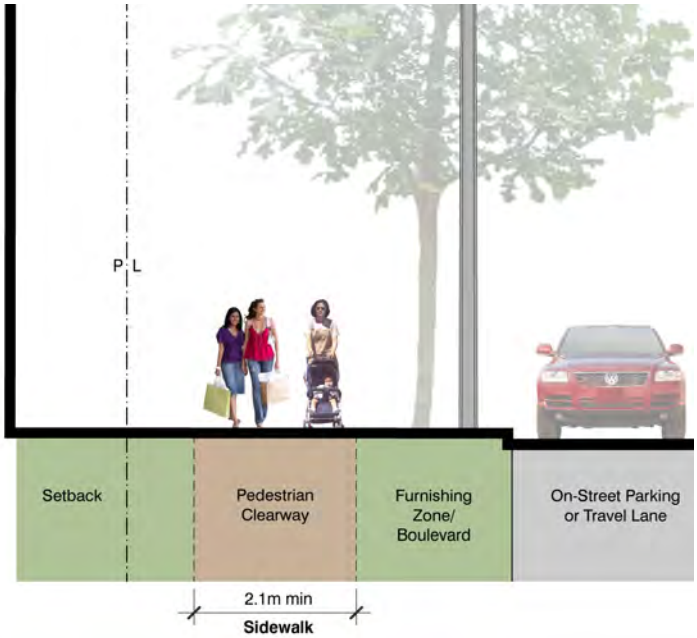


Diagram illustrating pedestrian clearway

Furnishing Zone

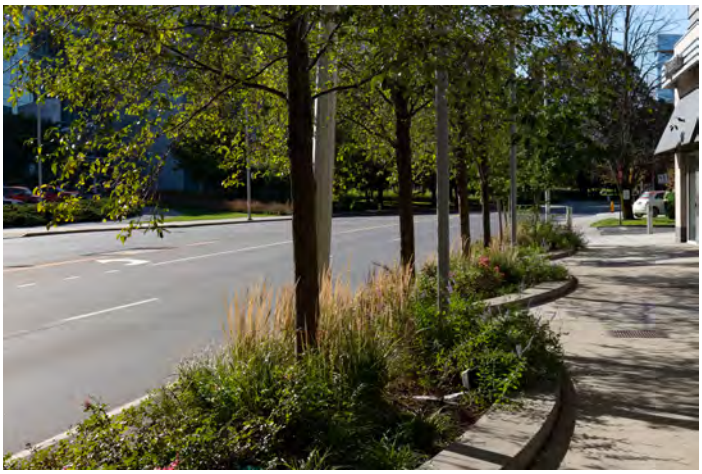
The Furnishing Zone is the part of the sidewalk adjacent to the roadway that provides space for a wide range of street elements such as tree planting, other planting areas, waste and recycling bins, benches, street lights, and bicycle racks.

Guidelines

a) Maintain a furnishing zone with a minimum width of 1 metre.

b) Setback all vertical elements such as posts, signs and street furniture a minimum of 0.5 metres from the curb face.

c) On streets with softscape boulevards between the sidewalk and curb, cluster street furniture on small paved areas within the furnishing zone to avoid breaking up the softscape.



Street furniture and planting located along the curb

Furnishings located between planting beds at the curb

Market Zone

The Market Zone is a hard surface extension of the sidewalk for commercial spill out such as sidewalk cafés and patios, signs and merchandise display. Market Zones should be encouraged in retail areas as they help to animate the street.

Guidelines

a) Where space allows, include a Market Zone along commercial-retail frontages, either within the right-of-way or within a setback.

b) The Market Zone should be located along the street sidewalk edge, separated from the sidewalk by open planting beds, or within spaces between buildings.

c) Sidewalk cafés and patios should be designed and located so as not to impede pedestrian movement.

d) Decorative fencing along the edge of the Market Zone, and patio furniture should be used to add interest in the streetscape and complement the design of the building or streetscape.

e) Ensure there is space for tree planting in open planting beds.

A market zone adjacent to the pedestrian clearway

Pedestrian Priority & Walkability

Street design influences pedestrian activity. When focus is placed on enhancing the pedestrian experience through traffic calming, seating, special lighting, paving, wide sidewalks, and public art, the street becomes a place where people want to walk and pause rather than drive through. To be most effective, focus on the pedestrian attractiveness at ground level.

Guidelines

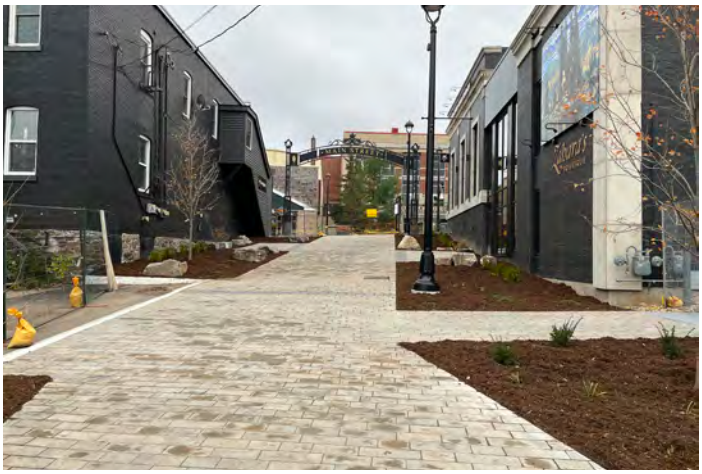
a) Provide continuous sidewalks on both sides of the road wherever feasible.

b) Ensure distinctive pedestrian sidewalk materials are continuous and clearly distinguishable across driveways.

c) Design sidewalks and crosswalks to be barrier-free and accessible as required by the Accessibility for Ontarians with Disabilities Act (AODA).

d) Create new streets through large development blocks to reinforce the permeability and walkability of the Mixed-Use Corridors.

e) Ensure that pedestrian mews and mid-block connections provide additional connections through large blocks and/or blocks with significant new development.



Mid-block connection in downtown Huntsville to connect parking to Main Street

f) Provide adequate space for accessible transit stops on routes through the Mixed-Use Corridors. Incorporate seating and shelter into the design where possible.

Pedestrian Crosswalks

Strongly identified pedestrian crosswalks are an essential part of providing a safe and comfortable pedestrian experience. When clearly defined, pedestrian crosswalks will help to minimize conflicts between vehicles and pedestrians.

Guidelines

a) Provide clearly marked pedestrian crosswalks at intersections to promote walkability and a pedestrian-focused environment.

b) Use distinctive feature paving, alternative pavement markings or materials to enhance the visibility and quality of pedestrian crosswalks. At minimum, all crosswalks should be identified with distinctive painted lines.

c) Provide Tactile Walking Surface Indicators at curb ramps or depressed curbs.

Crosswalk at Water and King Streets, Peterborough

Pedestrian crosswalk defined by special paving and a refuge

Active Transportation Crossings

A range of active transportation crossings, including pedestrian crossovers and signals, facilitate safe crossings of the street for active transportation users at intersections and mid-block locations, especially where there are long stretches between signalized intersections. Their design is governed by the requirements of the Highway Traffic Act (HTA) and includes specific combinations of signs, pavement markings and lights depending on their type.

Guidelines

a) Convert all pedestrian crossings that do not meet the HTA requirements.

b) Use distinctive feature paving or alternative pavement materials to enhance the visibility and quality of pedestrian crossing.

c) Consider narrowing the street with curb bump outs, bollards or pavement markings at pedestrian crossing to slow traffic.

d) Consider integrating speed bumps or table-tops into pedestrian crossings to naturally encourage slower speeds at these locations.

Traffic Calming

Traffic calming measures reduce vehicular traffic speeds and contribute to a safer environment for all road users. Some measures may be restricted to use on smaller collector roads, local roads, and driveway access points, while others will be applicable to large collector and arterial roads. In all cases the function of the road will help to determine suitable traffic calming measures.

Guidelines

a) Incorporate traffic calming measures such as curb bump outs, on-street parking, reduced lane widths, landscaping and trees, and raised intersections or crosswalks.

b) Add traffic calming measures along the Mixed-Use Corridors at:

- areas with increased pedestrian volumes
- active transportation crossings
- pedestrian plazas
- transit stop transfer locations
- gateway entrances .

Type B pedestrian crossover (image: City of Oakville)

Flat mountable curb for bump out on a truck route (image: NACTO, CC BY-NC 2.0, Flickr)

Curb Bump Outs

Curb bump outs are opportunities to provide enhanced pedestrian amenity space at intersections and to calm traffic. Bump outs can be used to create seating areas, including public realm elements such as unit paving, benches, street furniture, plantings and lighting.

Guidelines

a) Wherever possible use curb bump outs to narrow the local roads at intersections with Arterial and Collector roads.

b) Provide continuous unit paving, with a pattern consistent with adjacent streets.

c) Provide pedestrian/cyclist amenities including one or more benches, waste receptacles, newspaper boxes, mail boxes or bike rings.

d) Provide banners and hanging baskets on light standards at or near the bump out.

e) Consider other vertical elements such as lighting or public art to create a gateway.

f) Ensure there are direct linkages with all adjacent sidewalks and building entrances, and that pedestrian clearways are maintained.

g) Provide enhanced soft landscaping where space allows, while maintaining sight lines.

Planted curb bump out (image: Richard Drdul, CC BY-SA 2.0, Flickr)

Planting at bump outs help to calm traffic

Cycling Facilities

Key to encouraging active transportation use along these mixed-use corridors, is the integration of cycling facilities that provide separation from vehicle traffic while enhancing the pedestrian realm. The cycling facilities must be planned comprehensively with all other elements as part of a complete streets design process. Increasing safety for cyclists is critical to encouraging the activity, and has potential to enhance safety and comfort for all road users.

Guidelines

a) Protected cycling facilities are preferred along these corridors (i.e., protected bike lanes, cycle tracks, and in-boulevard multi-use paths). Separation can be created with, for example curbs, bollards, or raised bike facilities.

b) On-street bike lanes should be a minimum of 1.8 metres wide and be protected by buffers to both vehicle and parking lanes.

c) In areas of high pedestrian activity, separation of travel paths for pedestrians and cyclists should be considered.

d) Protected intersections are recommended to enhance safety and comfort of all road users.

e) In areas where protected intersections are not possible, ensure that bike lane markings continue through the intersection and consider the use of bike boxes.

f) Clearly indicate through signals, signage, and road markings when traffic must yield to cyclists at intersections.

g) Consider limiting the ability of right turning traffic to use the bike lane at intersections.

h) Bike lanes should be cleared of snow to the same service standard as vehicular lanes.

i) Install bicycle parking racks at appropriate intervals in the Furnishing Zone along streets, or where space allows, between the sidewalk and property line, at key destinations such as transit stations and parks. Ensure that bike parking can accommodate a range of bike types, sizes and trailers

j) Commercial and residential properties along these corridors may be required to provide on-site short-term bike parking for visitors and/or customers and long-term bike storage for employees and/or residents. Bicycle boulevards and in-boulevard multi-use paths are preferred on Arterials and Collectors within the Mixed-Use Corridors wherever possible.

Protected cycle tracks at sidewalk level

Snow clearance of bike lanes is important

Street Furniture

Street furniture contributes to the creation of unique streets and is an essential component of comfortable, pedestrian supportive streetscapes. Street furniture includes things such as seating, benches, bicycle racks, bollards, raised planters refuse and recycling containers, and newspaper boxes.

Guidelines

a) Streetscape elements, including street furniture, should be coordinated, clustered and not impede paths of travel.

b) Provide a coordinated and consistent family of street furnishings, with standardized types and styles.

c) Limit distinctive elements of furnishings to those that are easily implementable and replaceable, such as banners, colour or nameplates identifying the area.

d) Coordinate above- and below-ground utilities to avoid visual clutter in the streetscape and to minimize conflict with street trees.

Coordinated streetscape elements, West Don Lands, Toronto

Coordinated and grouped streetscape elements

Street Landscaping

Street landscaping plays an important part in creating a unique character and sense of place, in addition to the environmental benefits such as reducing the heat island effect that tree canopies provide.

Guidelines

a) Existing street trees and planting beds should be retained and maintained.

b) Provide large canopy deciduous trees on both sides of the street, with the goal of creating a mature tree canopy that will create a healthy and attractive streetscape environment.

c) Streets should be lined with a diverse selection of resilient canopy tree species, with preference given to native species.

d) Where the right-of-way does not have enough space for street trees, work with adjacent property owners to plant street trees on private property, particularly where adjacent areas are unpaved.

e) Hanging baskets, seasonal planters and other landscape features which add warmth and visual interest to the streetscape should be installed and maintained in key areas.

f) Trees and landscaping should not obscure views and sight lines.

g) Choose planting materials that add visual interest across all seasons.

h) Introduce green infrastructure such as bioswales within the public right of way as part of a comprehensive water management plan to enhance ground water infiltration and improve water quality.

i) Maintain a minimum overhead clearance of 2.1 metres for pedestrian clearways. Where this may not be achievable in the shorter term due to lower tree branches when trees are young, consider setting back tree planting a sufficient distance from clearways, planting larger calliper trees whose branches already exceed the requirement, or planting upright varieties to avoid the need for inappropriate pruning or removing of trees.

Tree-lined commercial street in Kansas City

Trees in open planting beds that also function for stormwater management

Trees in open planting bed with street furniture.

Lighting

Street lighting is important for the safety and comfort of pedestrians and the safe operation of traffic on City streets.

Guidelines

a) Use fixtures that are dark sky compliant and full spectrum, which reduce glare, light trespass, and light pollution, including use of full cut-off lighting.

b) Create a standardized palette of types, styles and varieties of decorative lighting that coordinates with the streetscape furnishings palette, takes into account maintenance requirements, and minimizes the total number of types used.

c) Limit distinctive elements of decorative lighting to those that are easily implementable and replaceable, such as banners, colour or nameplates identifying the area.

d) Group street lighting with street furniture, waste receptacles, and landscaping elements to minimize disruptions to pedestrian circulation and interruptions of the softscape boulevards.

e) Lighting should be designed using energy efficient sources and to avoid light pollution, spillover and glare.

f) Bury overhead hydro lines wherever feasible.

Dark sky compliant light fixtures

Pedestrian scale lighting adds character to street

Signage and Wayfinding

Wayfinding and signage should clearly identify key destinations, and provide information and mapping of walkable destinations. Wayfinding helps to orient people to key destinations, such as parks, and the location of parking and amenities, such as washrooms. Maps, directional signs, identifier signs and interpretive panels are all components of wayfinding and signage that contribute to enjoyable visitor experiences in which people are comfortable to explore all that Peterborough has to offer whether walking, driving, or cycling.

Guidelines

a) Wayfinding signage should identify local attractions, enhance awareness of key destinations and facilitate clarity and ease of movement between key destinations.

b) Signage and wayfinding should be designed and positioned for clarity and visibility (not blocked by vegetation) and where possible, information should be consolidated on one panel or post.

c) Signage should be simple, coordinated across the site, and be designed and located to reduce visual clutter. Image-based/graphical signage should be used wherever possible to improve universal understanding.

d) A hierarchy of coordinated directional signage should be provided to improve wayfinding for residents and visitors:

- Consolidate the direction to multiple destinations in directional signs for motorists and pedestrians.
- Provide a collection of information such as a map showing parking, key destinations and walking radius in an information kiosk or on a pedestal.
- Provide information on historic, cultural or environmental features on interpretive signs at key destinations.
- Identify key destinations such as parks, public docks, municipal buildings in a destination sign.

Wayfinding signage points out key destinations (image: City of Sydney)

Wayfinding map and directional sign pedestal

Directional signage to assist in pedestrian wayfinding

Interpretive sign, Tasmania, Australia

Public Art

Public art enhances the experience of the public realm, adds visual richness, provides landmarks within a community and can celebrate heritage.

Guidelines

a) Allocate a percentage of capital cost of streetscape/road projects for public art.

b) Create a fund for public art maintenance and an account to pool public art funds.

c) Public art should be considered throughout the planning and detail design for streetscape projects with a public artist being a core member of the team.

d) Identify priority locations for public art that can include visually prominent locations such as gateways, corners, landmark sites, and important view corridors.

e) Locate public art to be clearly visible and available for the public to get close to the installation.

f) Public art should enhance the public realm through artistic excellence and originality, and be appropriate to the site or location's physical and cultural context.

g) Consider the full range of possibilities for public art in streetscapes including freestanding work, site specific and public art integrated into paving, lighting, furnishings, etc.

h) Public art should not obstruct pedestrian, cyclist or vehicular circulation, entrances, windows, or sight lines to important natural and built features.

i) Public art should not impact, or be diminished by, existing or planned utility locations.

j) Public art should exhibit high quality construction, installation and materials, as appropriate for its intent.

k) Appropriate maintenance procedures should be secured with the installation of public art.

l) Selection of public art will include the involvement of the City of Peterborough's Public Art Facilitator to ensure consistency with the goals of the Official Plan and the City's Public Art Policy and Procedures (2022).

Water Guardians by Jennifer Marman, Daniel Borins and James Khamsi, West Don Lands, Toronto

Cartier Avenue lighting installation by Lightemotion, Quebec City

Renaissance on Hunter street murals, Peterborough

Street Guidance

These corridor specific guidelines and conceptual cross sections will be used to inform future improvements and will be subject to detailed design and public consultation in advance of street improvements.

Lansdowne Street East (near Ashburnham Drive)

Lansdowne Street is classified as a High Capacity Arterial Street.

a) Provide a sidewalk on the north side of the street with a pedestrian clearway of 2.1 metres where possible.

b) Provide an in-boulevard multi-use path, 3.0-4.0 metres wide as per City standards, on the south side of the street. Consider providing a similar facility on the north side or the street.

c) Street trees will play an important role in improving Lansdowne Street's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

d) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

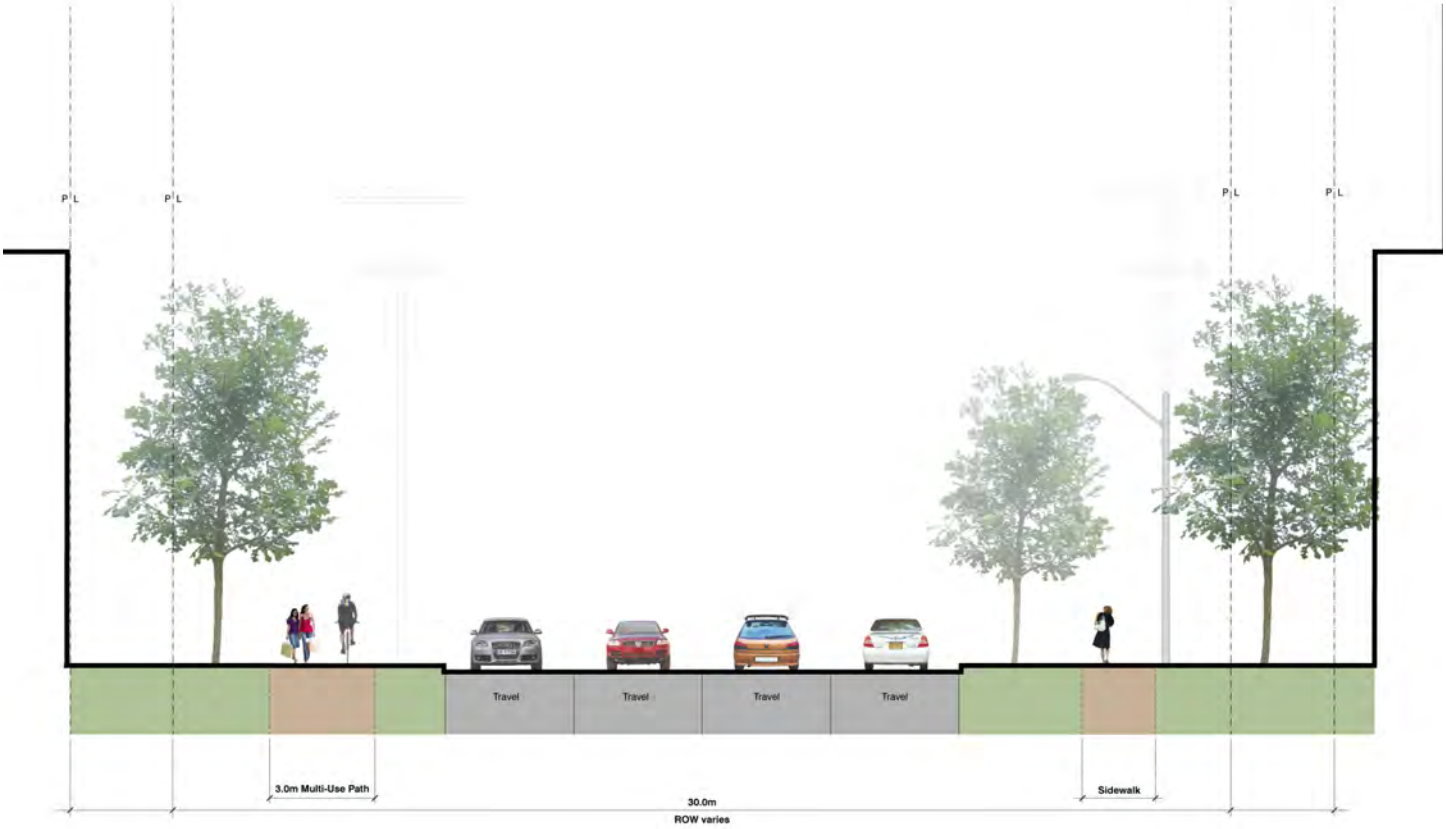
e) Where the existing right-of-way is less than 36 metres, set back new development so that it will work with a future 36 metre right-of-way width.

f) Create a gateway at the intersection of Lansdowne Street East and Ashburnham Drive, through the location and design of public space, streetscape design, public art or other elements.

g) Consider providing protected intersection features at main intersections, and additional active transportation crossings along the corridor.

Existing conditions along Lansdowne Street East (near Ashburnham Drive)

Lansdowne Street East (near Ashburnham Drive)



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Lansdowne Street (36 metres)

Lansdowne Street West (east of Clonsilla Avenue)

Lansdowne Street is classified as a High Capacity Arterial Street.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible.

b) Consider moving the sidewalks away from the road edge, with a landscape boulevard.

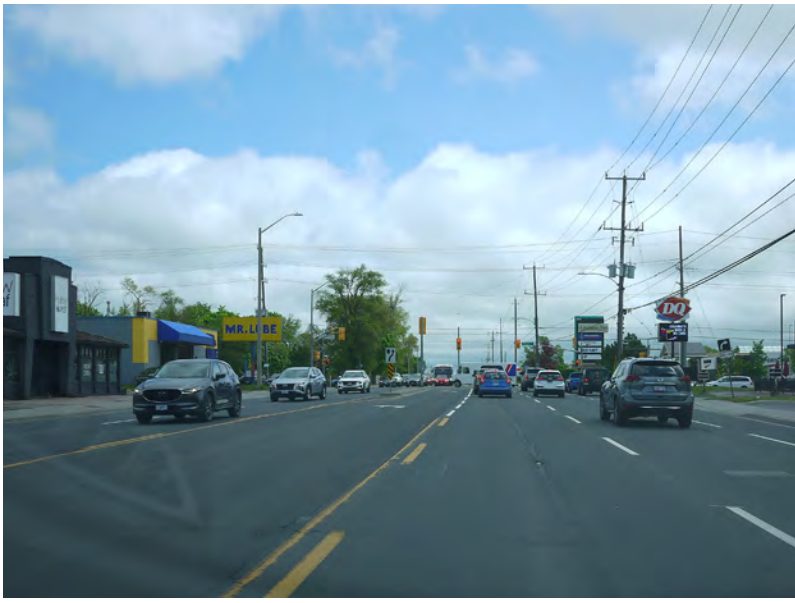
c) Consider providing connected cycling infrastructure along the corridor. A multi-use path may be appropriate, while in high pedestrian areas a separation between pedestrians and cyclists is preferred.

d) Street trees will play an important role in improving Lansdowne Street's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

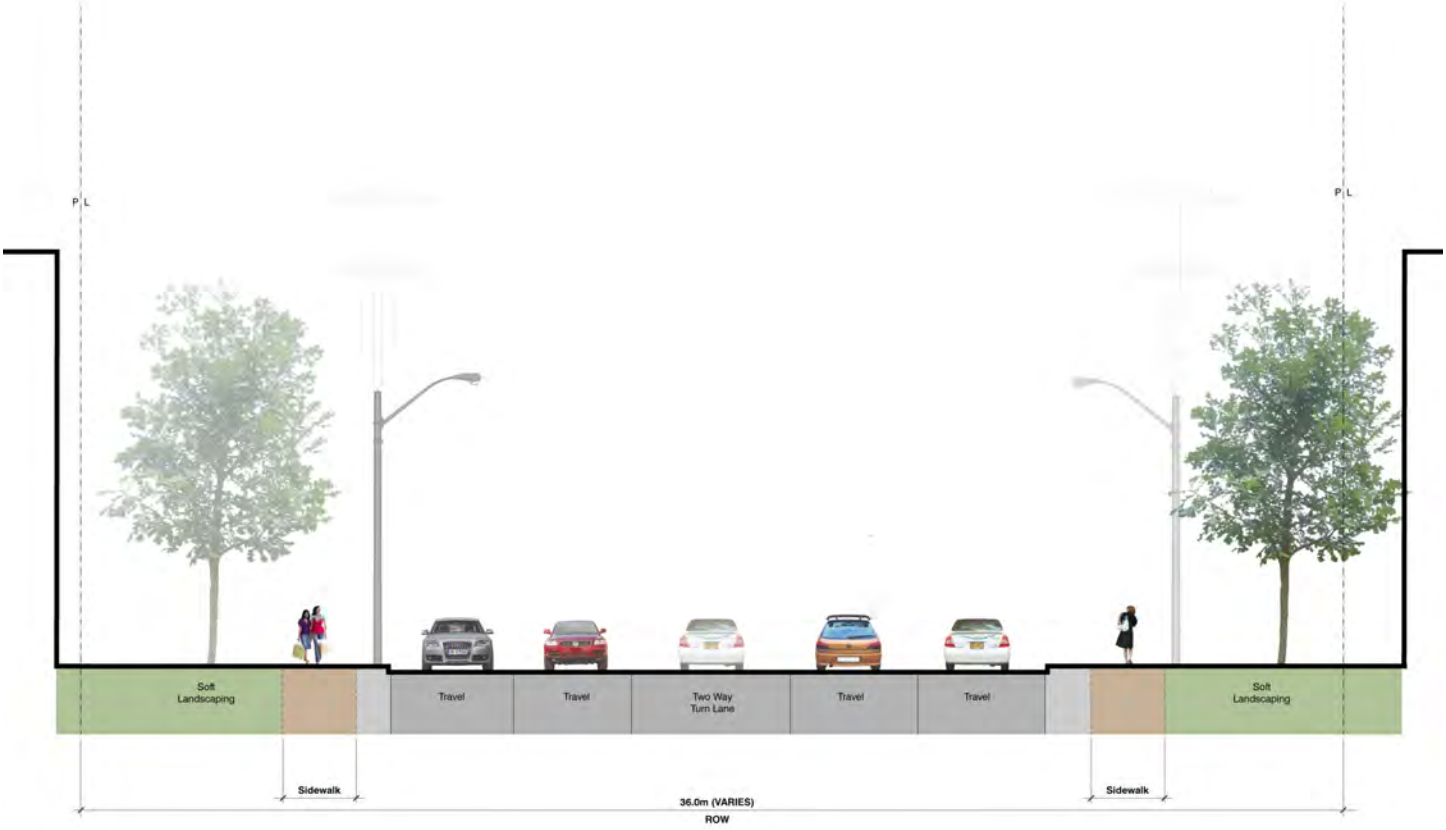
f) Where the existing right-of-way is less than 36 metres, set back new development so that it will work with a future 36 metre right-of-way width.

g) Consider providing protected intersection features at main intersections, and additional active transportation crossings along the corridor.



Existing conditions along Lansdowne Street West (east of Clonsilla Avenue)

Lansdowne Street West (east of Clonsilla Avenue)



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Lansdowne Street (36 metres)

Lansdowne Street West (west of Clonsilla Avenue)

Lansdowne Street is classified as a High Capacity Arterial Street.

a) Street trees will play an important role in improving Lansdowne Street's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

b) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

c) Where the existing right-of-way is less than 36 metres, set back new development so that it will work with a future 36 metre right-of-way width.

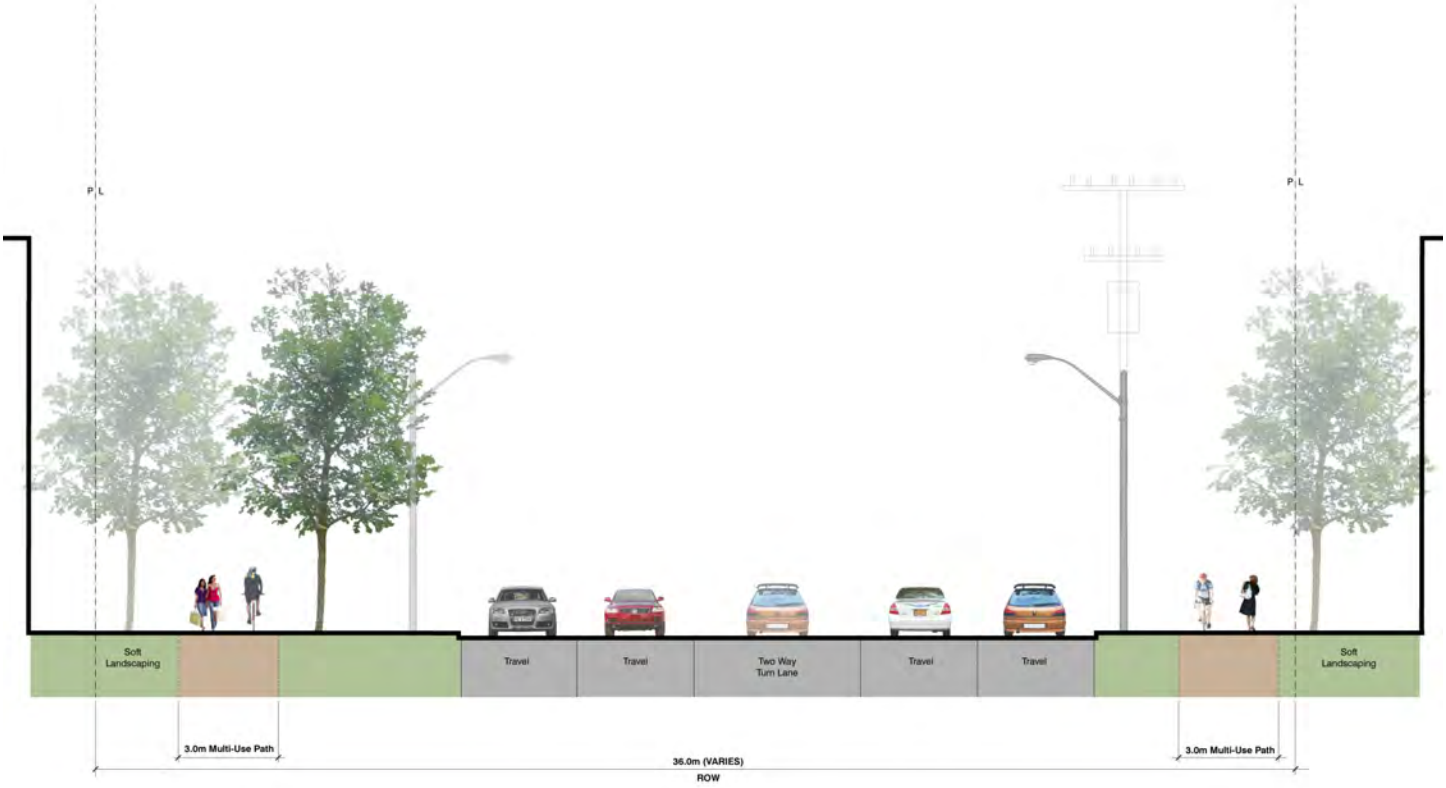
d) The 3.0 metre multi-use paths on each side should be set back from the road edge, with a green boulevard wherever space allows.

e) Create a gateway at the intersection of Lansdowne Street West and Clonsilla Avenue, through the location and design of public space, streetscape design, public art or other elements.

f) Consider providing protected intersection features at main intersections, and additional active transportation crossings along the corridor, where appropriate.

Existing conditions along Lansdowne Street West (west of Clonsilla Avenue)

Lansdowne Street West (west of Clonsilla Avenue)



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Lansdowne Street (36 metres)

Clonsilla Avenue (west of The Parkway)

Clonsilla Avenue west of The Parkway is classified as a High Capacity Arterial south of Sherbrooke Street and a Medium Capacity Arterial north of Sherbrooke Street.

a) Provide sidewalks on the southeast side of the street with pedestrian clearways of 2.1 metres where possible.

b) Consider moving the sidewalks away from the road edge, with a landscape boulevard.

c) Provide for a wide greenway on the northwest side of the street, preserving the hedgerow in front of the golf course and the green character of the street, and accommodating innovative stormwater management.

d) Provide a 3.0 metre multi-use path on the northwest side of the street, and set it back from the road edge, with a green boulevard wherever space allows. Consider providing cyclist facilities on both sides of the street. Separation of pedestrian and cyclist facilities is preferred.

e) Street trees will play an important role in improving Clonsilla Avenue's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

f) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

g) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate.

Existing conditions along Clonsilla Avenue (west of The Parkway)

Clonsilla Avenue (west of The Parkway)

Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Clonsilla Avenue

Clonsilla Avenue (east of The Parkway)

Clonsilla Avenue east of The Parkway is classified as a High Capacity Arterial.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible. Consider setting back the sidewalks further from the road wherever possible and providing a landscape boulevard.

b) Consider providing protected cycling facilities along this corridor.

c) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate.

d) Street trees play an important role in Clonsilla Avenue's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

f) Provide frequent connections to off-road active transportation routes through neighbouring green spaces.

Existing conditions along Clonsilla Avenue (east of The Parkway)

Clonsilla Avenue (east of The Parkway)

Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Clonsilla Avenue

Charlotte Street (west of Monaghan Road)

Charlotte Street west of Monaghan Road is classified as a Medium Capacity Arterial.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible.

b) Consider providing protected cycling facilities along this corridor.

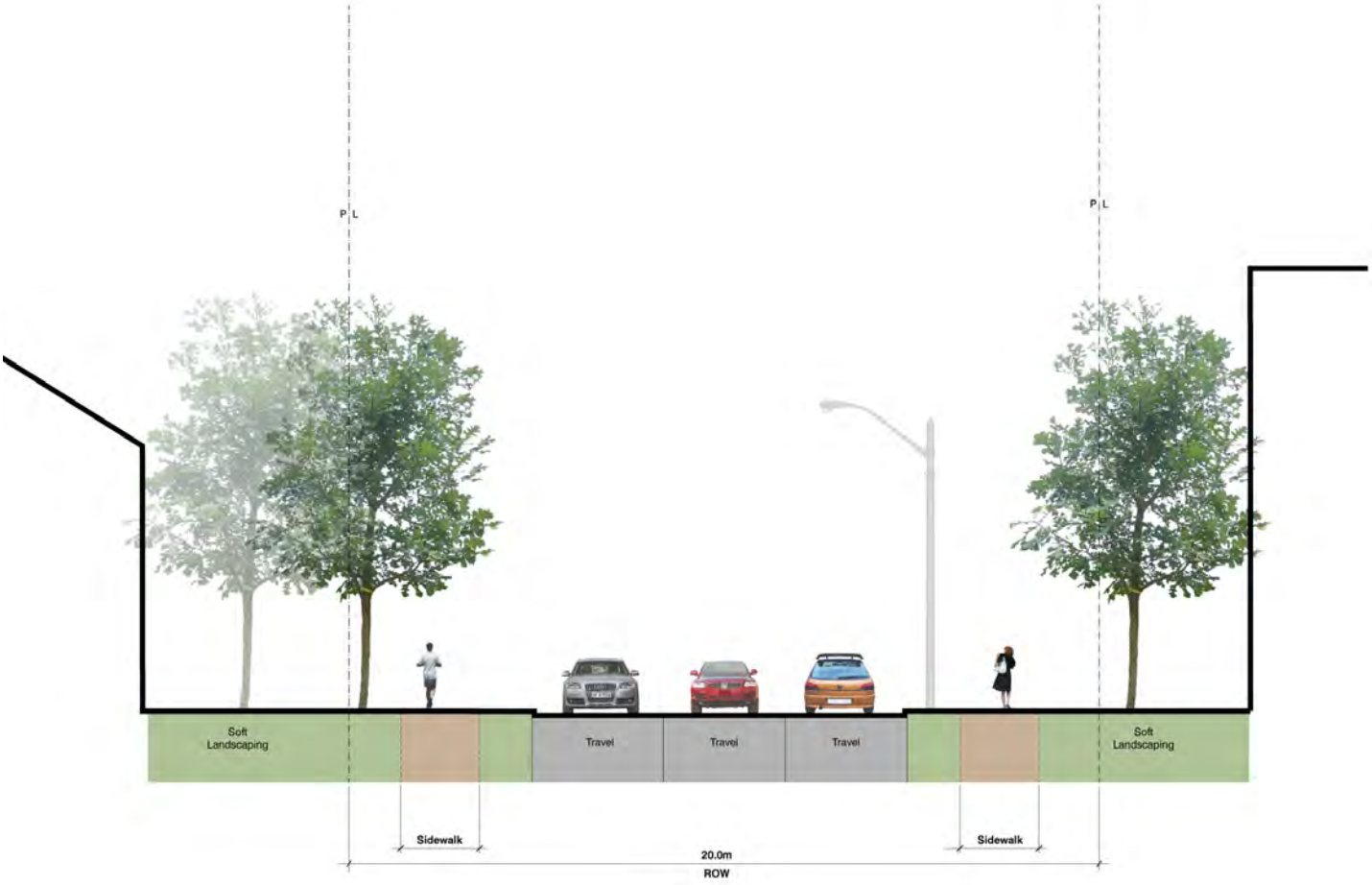
c) Consider providing protected intersection features at main intersections.

d) Street trees play an important role in Charlotte Street's character. Preserve trees whenever possible and explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

Existing conditions along Charlotte Street (west of Monaghan Road)

Charlotte Street (west of Monaghan Road)



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Charlotte Street

Charlotte Street (east of Monaghan Road)

Charlotte Street east of Monaghan Road is classified as a Medium Capacity Arterial. This part of Charlotte Street passes through the Avenues and Neighbourhood Heritage Conservation District. Changes to the streetscape should ensure they are compatible with the *Avenues and Neighbourhood Heritage Conservation District Plan*, 2016.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible.

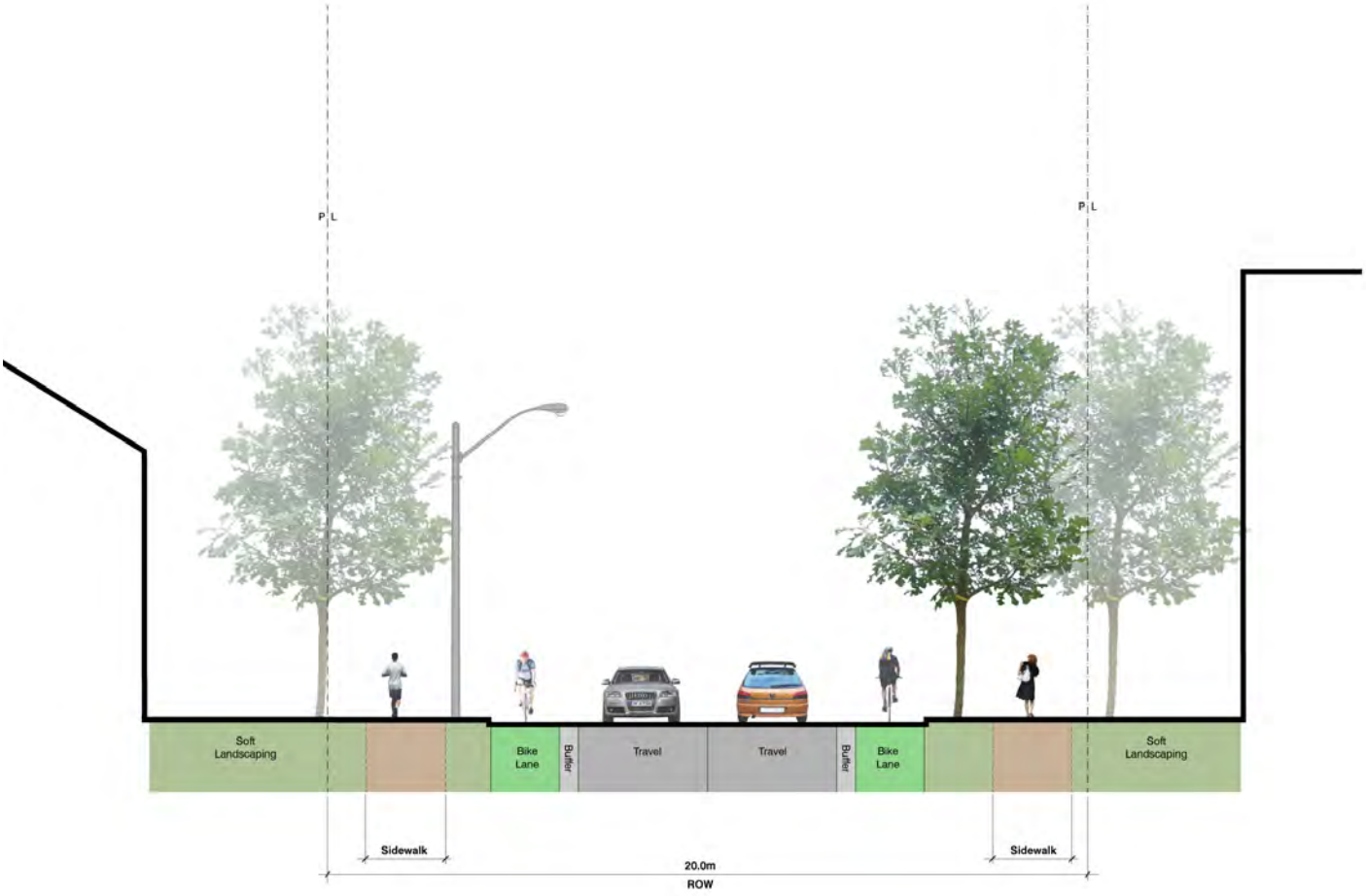
b) Provide 1.8 metre wide bike lanes on both sides of the street with a 0.5 metre buffer.

c) Street trees play an important role in Charlotte Street's character. Preserve trees whenever possible and explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

d) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

Existing conditions along Charlotte Street (east of Monaghan Road)

Charlotte Street (east of Monaghan Road)



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Charlotte Street

Reid Street

Reid Street north of McDonnel Street is classified as a Medium Capacity Arterial.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible. Consider setting back the sidewalks further from the road wherever possible and providing a landscape boulevard.

b) Consider providing protected cycling facilities along this corridor.

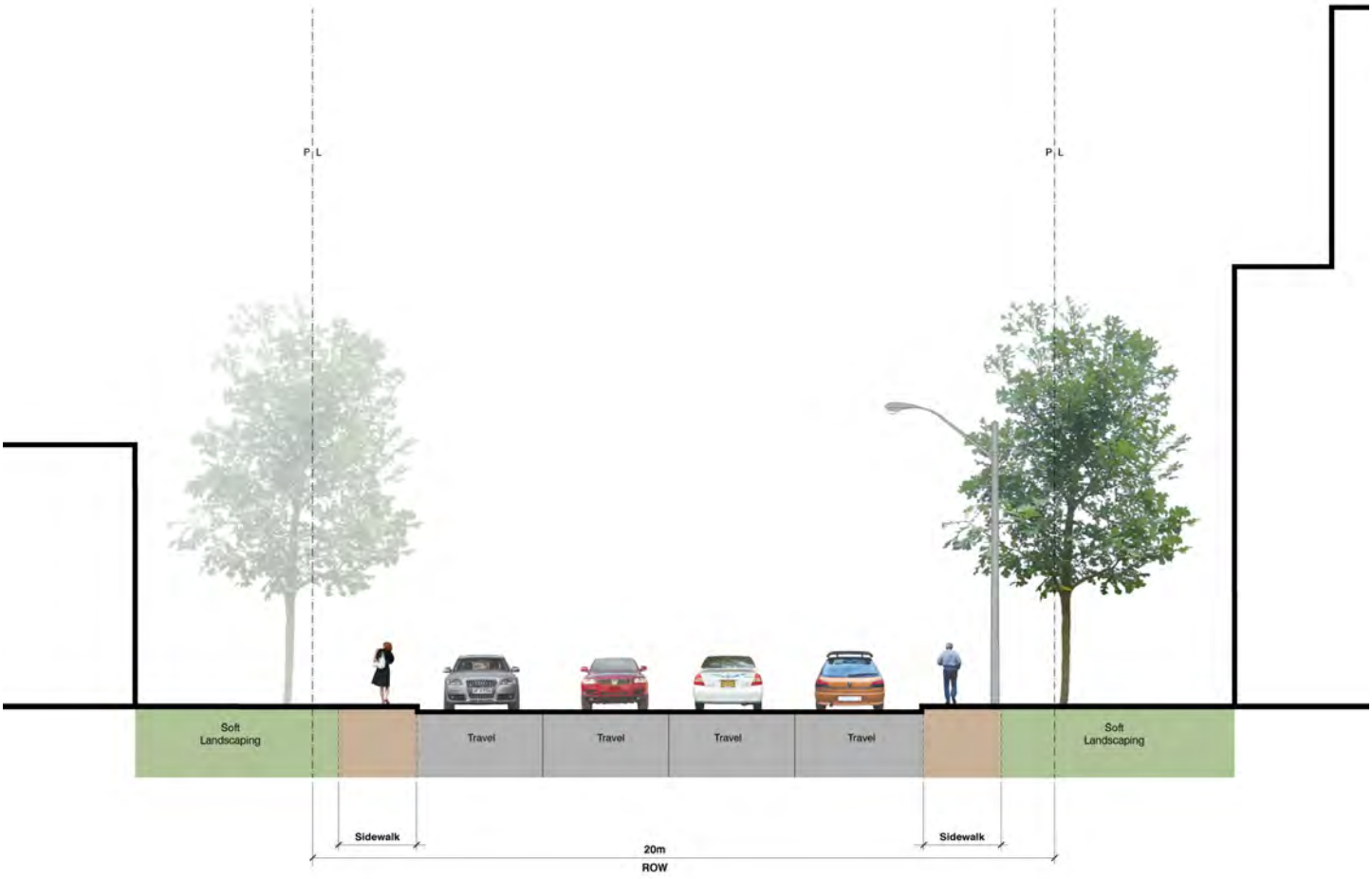
c) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate.

d) Street trees play an important role in Reid Street's character, but in general there is not space in the 20 metre right-of-way for trees. Preserve trees whenever possible and explore opportunities to increase the number of street trees on adjacent private property wherever possible.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

Existing conditions along Reid Street

Reid Street



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Reid Street

Chemong Road (south of Highland Road)

Chemong Road south of Highland Road is classified as a High Capacity Arterial.

a) Provide sidewalks on the east side of the street with pedestrian clearways of 2.1 metres where possible.

b) Provide a 3.0 metre wide multi-use path with a landscaped boulevard on the west side of the street. Consider providing cyclist facilities on both sides of the street. Separation of pedestrian and cyclist facilities is preferred

c) Consider setting back the sidewalks further from the road wherever possible and providing a landscape boulevard.

d) Street trees will play an important role in improving Chemong Road's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

f) Where the existing right-of-way is less than 30 metres, set back new development so that it will work with a future 30 metre right-of-way width.

g) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate.

Existing conditions along Chemong Road (south of Highland Road)

Chemong Road (south of Highland Road)

Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Chemong Road

Chemong Road (north of Highland Road)

Chemong Road north of Highland Road is classified as a High Capacity Arterial.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible.

b) Street trees will play an important role in improving Chemong Road's character. Explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

c) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

d) Consider providing in-boulevard multi-use paths on both sides of Chemong Road. Separation of pedestrian and cyclist facilities is preferred

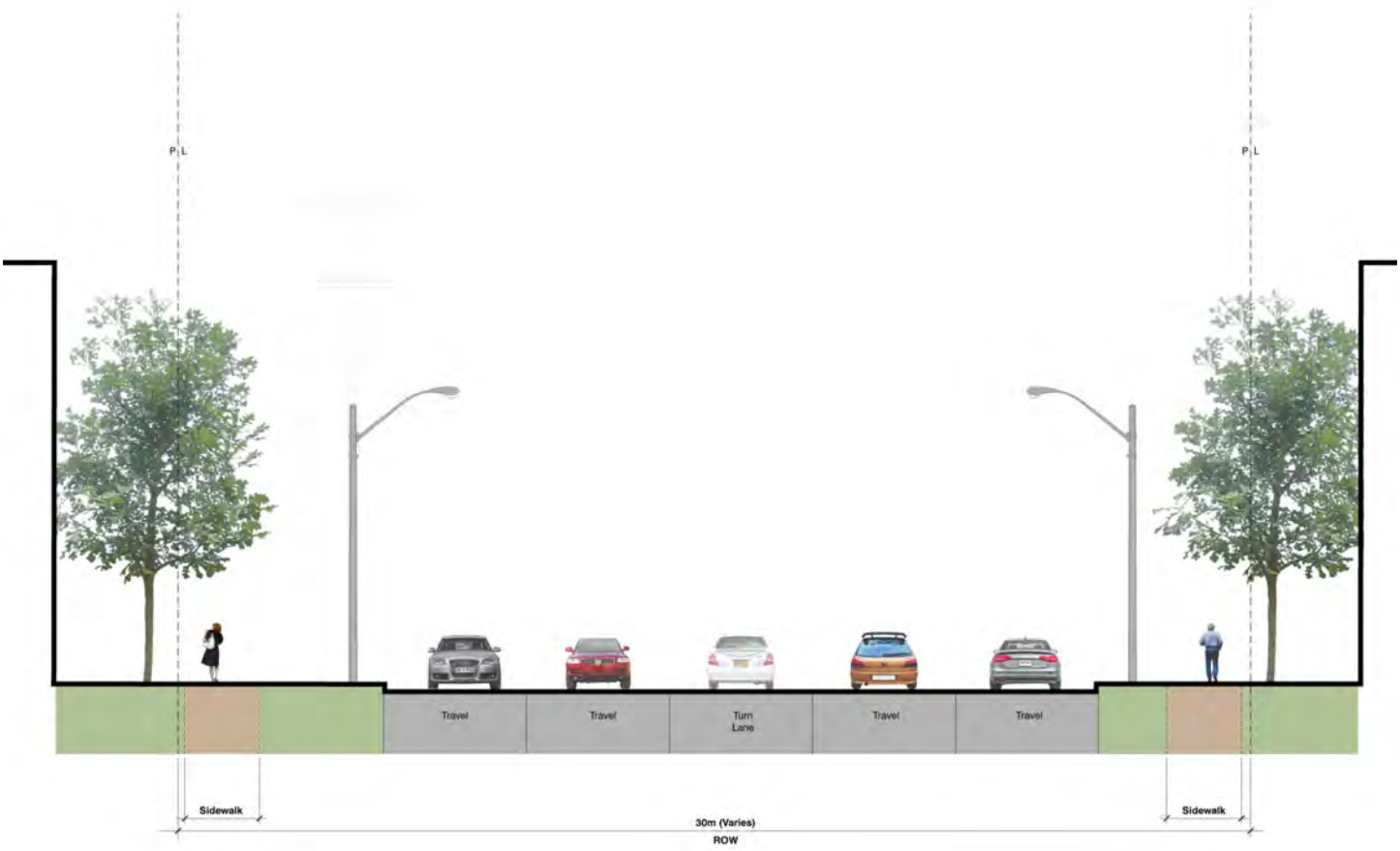
e) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate.

f) Provide for a safe crossing of the Parkway Trail across Chemong Road.

g) Providing a small urban square at Chemong and Towerhill Road can create a focal point and main entrance for a new Community Hub.

Existing conditions along Chemong Road (north of Highland Road)

Chemong Road (north of Highland Road)



Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Chemong Road

Hilliard Street

Hilliard Street is classified as a Medium Capacity Arterial.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible.

b) Provide 1.8 metre wide bike lanes on both sides of the street.

c) Consider providing minimum 0.5 metre buffers for the bike lanes.

d) Ensure cycling facilities extend through intersections, and install additional active transportation crossings along the corridor, where appropriate.

e) Street trees play an important role in Hilliard Street's character. Preserve trees whenever possible and explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

f) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

Existing conditions along Hilliard Street

Hilliard Street

Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Hilliard Street

Water Street (north of Auburn Street)

Water Street between Auburn Street and Woodland Drive is classified as a High Capacity Arterial.

a) Provide a sidewalk on the west side of the street with pedestrian clearways of 2.1 metres where possible. Consider setting back the sidewalks further from the road wherever possible and providing a landscape boulevard

b) Consider the potential for multi-use paths on both sides of the street with landscape buffers from the roadway. On the east side, the multi-use path could be located between the right-of-way and the Otonabee River where space allows.

c) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate.

d) Street trees play an important role in Water Street's character. Preserve trees whenever possible and explore opportunities to increase the number of street trees, especially where there is additional space within the right of way, or on adjacent private property when the building is set back.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

Existing conditions along Water Street (north of Auburn Street)

Water Street (north of Auburn Street)

Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Water Street

Armour Road

Armour Road north of Cunningham Boulevard is classified as a High Capacity Arterial.

a) Provide sidewalks on both sides of the street with pedestrian clearways of 2.1 metres where possible.

b) Consider providing protected cycling facilities along the corridor.

c) Consider providing protected intersections at main intersections, and additional active transportation crossings along the corridor, where appropriate

d) Street trees will play an important role in Armour Road's character. Preserve trees whenever possible through the realignment and ensure adequate space will be available for plentiful street trees.

e) Plant trees in open planting beds or softscape wherever feasible. Open planting beds are better for trees, ensuring adequate aeration and water as long as there is protection from compaction for roots.

Existing conditions along Armour Road

Armour Road

Note: Right-of-way width as per existing conditions and Official Plan Schedule I for Armour Road

8 Park Guidelines

Peterborough's Mixed-Use Corridors, as locations for significant future intensification will require new, more urban park typologies to support the new developments. Parks contribute to healthy and complete communities, and offer an attractive quality of place for residents, businesses and visitors. Parks provide spaces for recreational activities, social gathering, as well as offering mental and physical health benefits.

Along with the social and health-related benefits of parks, there are important environmental benefits. Trees remove significant amounts of air pollution and sequester carbon, reducing greenhouse gas emissions. Further, parks and trees play an important role in combatting the urban heat island effect.

Parks also offer important economic benefits that include increased property values, increased tourism expenditures, decreased health care expenditures, reduced storm water management costs, and savings associated with reduced air pollution. Public sector investment in parks can be leveraged into a private sector investment response. Investment in parks is a key stimulus for change, establishing the appropriate environment for redevelopment and revitalization.

The new *Official Plan* (2023) sets out a hierarchy of Urban Park Spaces that are pedestrian-friendly spaces that accommodate socializing in the urban area. It is expected that Urban Community Parks and Urban Squares be acquired, owned, developed and maintained by the City, notwithstanding that there may be opportunities where private ownership options are appropriate.

This chapter sets out the guidelines to direct the planning and detailed design of Urban Park Spaces in the Mixed-Use Corridors. The guidelines are to be used with the City's *Park Development Standards* (2019).

Park Typologies

The City's Official Plan sets out a hierarchy of urban parks that are appropriate for the urban context expected to evolve along the Mixed-Use Corridors. It is expected there may be smaller parks on development sites that may be publicly or privately owned. Privately owned parks will be signed as open for public access and maintained to ensure high quality spaces.

Urban Community Parks

Urban Community Parks are the largest urban park typology and are intended to be primary focal point of communities within the Mixed-Use Corridors. These parks provide multi functional flexible space and programming for large-scale social gatherings, festivals and civic functions, and accommodate facilities for the entire community. Urban Community Parks support a balance of active and passive uses and should also accommodate special features that add visual interest and contribute to placemaking, including locations for public art. Urban Community Parks have frontage on at least two public streets and can include a full suite of features including dog runs, children's play features, water features and public art.

Community Park in British Columbia

Lee Lifeson Art Park, Toronto

Prince's Island Park, Calgary

Urban Squares

Urban Squares are commonly associated with commercial and residential land uses, and play an important role in the public realm network. Urban Squares may include small outdoor game areas, seating areas and places to eat, as well as street-related activities such as vendor and exhibit space. These parks are community focal points that should accommodate special features such as public art that add visual interest and contribute to placemaking. Urban squares are smaller than urban community parks and provide green space for the community generally within a 5 minute walk of the Square.

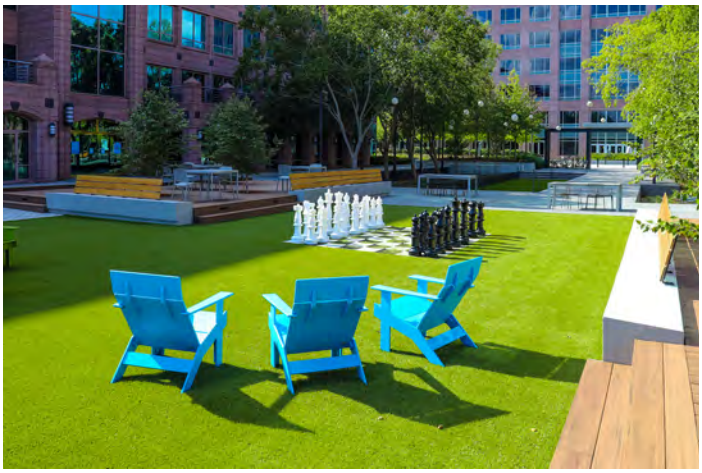
Invermere, British Columbia

Town Hall Square, Yorkville, Toronto

Town Square, Oakville

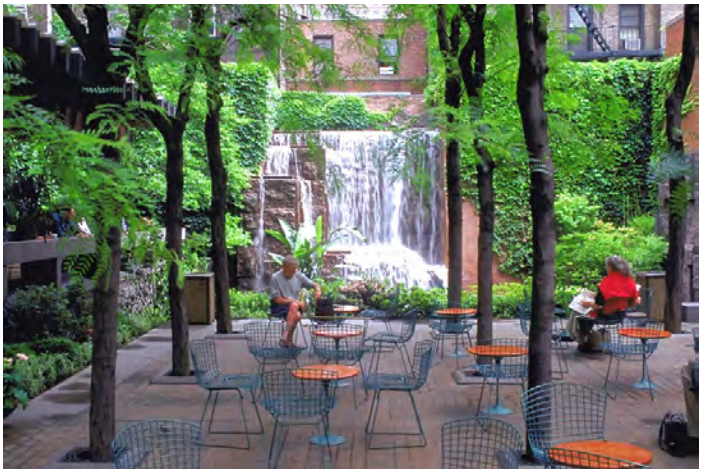
Urban Pocket Parks

Urban Pocket Parks may be either publicly or privately owned and open to the public. These parks will generally be integrated with the surrounding built form and are small, pedestrian-friendly spaces that accommodate socializing in dense urban areas, forming part of the public realm network. They should be designed to a very high standard to support more intensified use, and are destinations unto themselves that are animated with outdoor seating, restaurant and retail frontages. Urban pocket parks serve the community within a 2.5 to 5 minute walk of the park.



Lenox Park, Brookhaven, GA

Pocket park, Philadelphia



Greenacres Park, New York

Sliver Parks

Sliver Parks are small spaces that function as substantially widened sidewalks to create plazas or forecourts between the face of the adjacent building and the street, while denoting a clear path of travel. These parks may be either publicly or privately owned and open to the public.

Front Street Linear Park, Toronto

Sliver Park along a street in Europe

Sliver Park, Church Street, Toronto

Courtyards

Courtyards are small interior or exterior spaces that are surrounded by buildings, and lined with small stores, restaurants and outdoor cafes. These parks may be either publicly or privately owned and open to the public, and contribute to the logical wayfinding/navigation system and a fine-grained public realm network.

Connecting Links

Connecting Links are outdoor walkways that may be lined with stores, restaurants and outdoor cafes and which may be either publicly or privately owned and open to the public. These parks provide valuable opportunities to improve connections between the public sidewalk system and other components of the public realm network.

Pentagon Row, Arlington, VA
(image: Solomon Abrams, CC BY 2.0, Flickr)

Connecting link in Germany

Museum of Modern Art Courtyard, New York City

Connecting link in Berlin, Germany

General Guidelines for Parks

Context, Heritage & Placemaking

The detailed design of parks contributes to the character and attractiveness of the neighbourhood in which they are situated. Attractiveness refers to how inviting and interesting the surroundings are for pedestrians. In particular, well-maintained and well-lit parks are most attractive, as are those that are animated with street-level activity, such as from commercial, civic, or recreational uses. Placemaking refers to community-based efforts and activities to physically reflect an area's unique character, assets, and history, and to make it livelier and more of a destination. Placemaking should be considered as a site-specific and context-specific pursuit.

Village of Yorkville Park, Toronto

Awen Gathering Place, Collingwood

Guidelines

a) Each park should have an identity of its own, while also respecting, or enhancing, the neighbourhood character, including patterns, materials, and architectural style.

b) Encourage the reflection, protection or enhancement of Indigenous and non-indigenous cultural heritage and historical values in parks.

c) Work with Indigenous communities to celebrate and commemorate Indigenous history and/or culture by providing opportunities for Indigenous placemaking in public spaces.

d) Acknowledge and celebrate the importance of the local Indigenous language, known as Anishinaabemowin in Ojibwa, by pursuing opportunities to include Indigenous place names on the landscape of the City.

e) Where possible, incorporate public art and local artifacts into the space, including opportunities for education and interpretation.

f) Effort should be made to understand and communicate the unique culture, history, or qualities of the community in the design of parks and public spaces.

Accessibility, Diversity, Equity and Inclusion

Accessibility refers to the usability of parks for all people, regardless of their age or ability. Parks should include features usable by children to older adults, and include features that consider the needs of children and caregivers with various disabilities.

Diversity, equity and inclusion means ensuring that the urban park network can be used by people of all incomes, and all abilities by keeping park spaces free of charge and by ensuring they are distributed throughout the Mixed-Use Corridors. Parks should avoid designs that appear to privatize the space, or elements within it.

Parks must meet the requirements of the *Accessibilities for Ontarians with Disabilities Act* (AODA), the City of Peterborough's *Accessibility Plan* and *Accessibility Policies and Procedures*.

Guidelines

a) Accommodate a variety of activities within the park space.

b) Minimize changes in grade between the open space and surrounding public space, including public sidewalks.

c) Where changes in grade are not avoidable, provide an accessible route that complies with AODA standards.

d) Strive to locate utilities such as manhole, handwell and water valves covers outside of walkway zones. Where grates are required in a walkway zone, orient them perpendicular to the direction of travel.

e) Provide a detectable edge and contrasting change in surface at the edge of the vehicular zone, or other conflicts or hazards, through pavement treatments, tactile warning indicators, and signage.

f) Ensure surface under play structures is accessible and has impact attenuating properties for injury prevention. Wood chips, sand and gravel are not acceptable ground surfaces.

Neshama Playground, Toronto, PMA Landscape Architects

A variety of activities accommodated, Sherbourne Park, Toronto

Safety

The primary risks for pedestrians in parks are associated with vehicle traffic and crime. Key considerations include separation from vehicle traffic - taking into consideration the speed and volume of traffic, and the treatment of intersections where pedestrian and vehicle traffic must cross. With regard to the design of parks, *Crime Prevention Through Environmental Design* (CPTED), provides direction for improving the safety of a space through thoughtful design.

Guidelines

a) Parks should be generally be located abutting and visible from public streets, pedestrian or multi-use pathways.

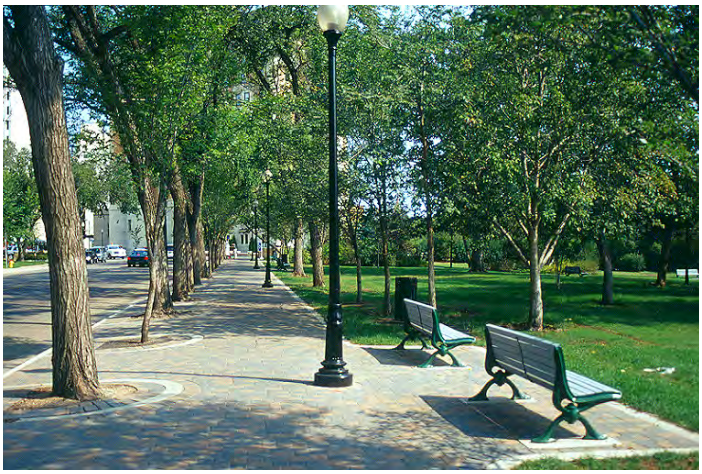
b) Provide clear sightlines through the park space to adjacent streets and buildings to promote informal neighbourhood surveillance.

c) Include adequate, consistent, pedestrian-scaled lighting.

d) Avoid the creation of entrapment spots, blind corners, dense planting designs or areas that are not easily visible.

e) Parks should be located where they can be lined with buildings that have active frontages, with windows and doors that open onto the park.

f) Parks should be designed with quality materials and furnishings and be regularly maintained to a high standard.



Park is adjacent and visible from the street, Saskatoon

Adequate and consistent pedestrian-scale lighting

Comfort

Pedestrian comfort is critical for the success of parks, and should be considered early in the design of the site. The location of the park in relation to surrounding buildings will have implications relating to wind, solar exposure, and visual access.

Comfort refers to how pleasant, easy, and free from challenges a pedestrian visit can be. Pedestrian comfort depends on the convenience, coherence, safety, and accessibility of the entire park, and it can be enhanced through construction materials and the provision of pedestrian amenities that serve the needs of pedestrians. Perceptions of space should also be considered, including providing more intimately scaled "rooms" in larger open spaces. The following practices will contribute to the comfort of the open space:

Guidelines

a) Locate open space such that it maximizes sunlight and views to the sky.

b) Provide ample seating throughout the site.

c) Provide a range of exposures, including areas with shading, through the use of canopy trees or other structures.

d) Consider wind and noise levels throughout the site. Where necessary, use plantings and structures to lower wind and noise levels and create comfortable microclimates, without compromising safety or visibility through the space.

e) Consider four-season use when selecting materials and finishes (e.g. – consider materials that retain heat, such as wood, in seating intended for use in cooler seasons).

f) Provide site amenities including drinking fountains, bottle fill stations, washrooms, and waste receptacles.

Provide ample seating and site amenities

Attractive and welcoming public washrooms in parks

Sustainability & Resilience

Sustainability in park design refers to a space's impact on the environment. This includes minimizing negative influences which may compromise the future health of the environment and putting in place measures which help improve the health of the local ecosystem. Resilience goes further to consider the constantly changing effects of climate change, and the ability of a space to persist in good health and quality over time, while also mitigating factors contributing to climate change. Resiliency also includes designing new parks, to meet the societal needs and challenges facing the whole community, neighbourhood and City-wide.

Guidelines

a) Encourage active transportation through circulation design and the provision of supportive facilities (e.g. – provide ample bike racks, connect with public sidewalks).

b) Encourage mature tree growth to increase canopy cover, which combats urban heat island effect, improves air quality, and increases stormwater uptake.

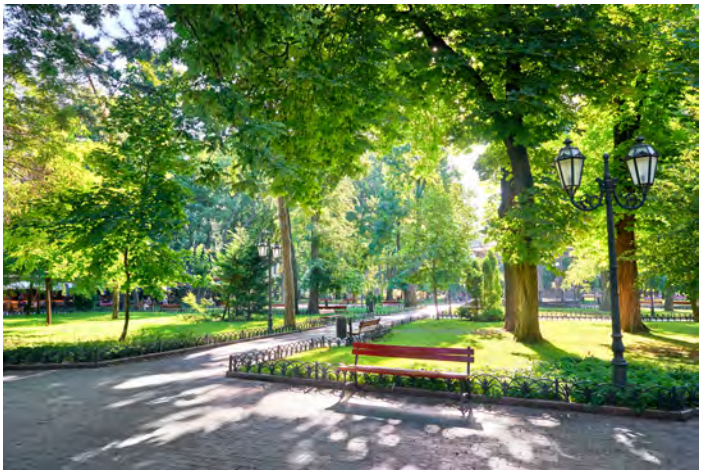
c) Increase species diversity in planting, and support local pollinator and faunal species.

d) Use native and drought-tolerant plant species, that are also tolerant to salt and other pollutants.

e) Use permeable paving and below-grade infrastructure to harvest stormwater for reuse.

f) Use recycled materials, or materials with sustainable lifecycles.

Closely spaced trees creates a shaded area



Park with a diversity of ages and species of trees

Site Design

The introduction of new urban parks should be considered in relation to the adjacent land uses and architecture. Where a development is proposed, the relationship between the building massing and articulation, particularly at-grade, should be designed concurrently with the preliminary design of the adjacent park, to the mutual benefit of both. It is crucial that all of the urban park typologies exist and work together to create a robust and comprehensive urban park network.

Guidelines

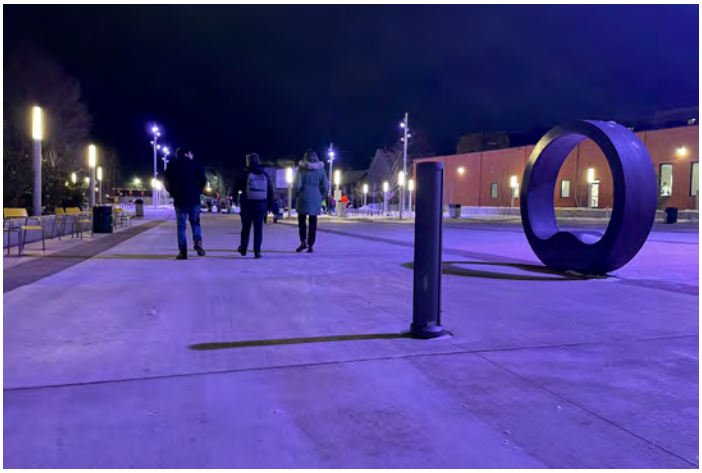
a) Urban parks should be designed to be flush with the building facades and at-grade uses.

b) Active building frontages, with accessible at-grade uses, such as cafes and shops, are the ideal companion to an urban park. Active building frontages are transparent and incorporate windows, balconies, and entrances adjacent to parks to provide more opportunity for interaction between inside and outside uses. Active edges help to animate the park, improve safety, and encourage use.

c) Urban parks should have physical and visual access to the larger pedestrian circulation system, and have significant frontage onto the public sidewalk system.

Urban square lined with active building frontages

Significant frontage on public sidewalk, Victoria Square, Toronto



Quaker Foods City Square, Peterborough

Programming

Great urban open spaces have strong functional assets. With respect to programming urban space, the key is flexibility in meeting the needs of residential users, office users and retail/ commercial users. Flexibility and variety is also required to allow the open space to adapt to changing needs over time. Programming opportunities are directly related to the scale, purpose and design of the space. Urban Community Parks and Urban Squares provide opportunities to accommodate green space, tree cover and softscape areas that may include unprogrammed recreational space and other larger scale park features. In some instances, these spaces may also accommodate small sports fields, courts, and performance venues, as well as play elements for children. Smaller open space typologies will not accommodate the same diversity in programming, but still may include children's play areas, seating areas, public art, and planting elements.

Guidelines

a) Support active transportation use for participants in programming by ensuring there are multiple public access points and connections, creating trail connections, and providing bike parking facilities.

b) Support adjacent interior uses (e.g. – retail, office, residential, dining).

c) Promote passive recreation, including sitting, walking, and socializing.

d) Provide opportunities for individual and modestly scaled group recreational activities.

e) Be flexible in its design to support four-season use and temporary programming, including events, festivals and markets.

Market event being held in a park

Temporary outdoor cinema set up in a park

Skating rink at Quaker Foods City Square, Peterborough

Hardscaping

Hardscaping plays a significant role in the design of urban parks. Given the space constraints that many urban park typologies are subject to, hardscape may make up the majority, if not all, of the ground level surface. The selection and design of the paving material will affect the usability and comfort of the space, as well as its aesthetics and character. Furthermore, the selection of hardscape materials should take into consideration issues of climate change, in particular urban heat island mitigation and stormwater management.

Guidelines

a) Provide a safe walking surface for all users, with special implementation of universal accessibility. Walking surfaces should be non-skid material.

b) Design hardscaping for passive cooling. Light coloured or high albedo materials, and open grid or porous surfaces help to mitigate urban heat island effect.

c) Select high quality materials that contribute to the character of the space and the surrounding area.

d) Where unit paving is used, ensure that differential settlement and heaving in the long term is mitigated. Consider incorporating a concrete base below the unit pavers.

e) Select paving materials that have a long lifespan. Prepare a maintenance and repair manual as part of the design deliverables.

f) Where built over structure, ensure high quality membrane materials that have a long lifespan. Prepare a maintenance and repair manual as part of the design deliverables.

g) Provide unobstructed circulation routes through or around the space. Provide a minimum 2.1 metres wide pedestrian clearway.

h) Incorporate guiding edges and contrasting materials along the edges of main circulation routes, especially where located adjacent to open hard surface areas.

Distinctive paving in Place Bourge, Montreal, Quebec

Variety of high quality paving material

Unobstructed paving surface for pedestrians, Bellevue Park, Toronto

Softscaping

Softscaping, including planting beds and areas of sod, helps to establish the identity of the park, supports passive and active recreation, and provides a range of ecological benefits. Plant material helps to lower the ambient air temperature, absorb excess stormwater, improve air quality, and support local fauna and pollinators. Perennials and shrubs provide an excellent opportunity to inject vibrant colour and texture into a space, a quality typically lacking in urbanized areas.

Guidelines

a) Use planting to provide visual interest across all seasons. Consider incorporating a variety of colours, textures, heights, and forms throughout the open space.

b) Ensure that planting material does not obstruct visibility through the site. Use CPTED principles while developing the planting strategy.

c) Use planting material to establish a comfortable microclimate (e.g. – provide wind and noise reduction).

d) Plantings, should be low maintenance, drought tolerant, pest and disease resistant and tolerant of salt and other pollutants.

e) Provide planting beds that are a minimum of 600mm in width to ensure the beds have some significance.

f) Where non-drought tolerant species are used, provide automatic irrigation.

g) Encourage the design of irrigation systems to both conserve potable water and use rainwater.

h) Softscaping can be used to form guiding edges and contrast along the edges of main circulation routes, especially where walkways are located adjacent to open hard surface areas.

Planting beds do not obstruct views into the park

Planting provides visual interest.

Seating

Seating is a key amenity in all types of urban parks. Seating should be designed to be accessible, inviting, durable and comfortable and chosen based on the site conditions, park design and operations and management framework. A variety of seating types should be considered, such as benches and chairs, seat walls, fixed chairs with a table, movable chairs, including with tables, and informal seating (e.g. – lawn, platforms, steps, ledges).

Guidelines

a) Provide a variety of seating types. In Urban Community Parks and Urban Squares provide at least two seating types. In Connecting Links, Pocket Parks and Sliver Parks provide at least one type of seating.

b) Provide seating in both the sun and the shade.

c) Provide a variety of configurations to accommodate individuals and groups.

d) Consider movable chairs and tables (tethered if required) to accommodate flexibility in use, depending on specific maintenance and operations for the Urban Park.

e) Optimize four-season comfort when selecting seating materials and finishes (e.g. – wood is more comfortable during cooler seasons).

f) Orient seating to provide engaging views, encourage informal surveillance, and increase comfort.

g) Provide a range of backed and backless seating, and benches with and without arms, to accommodate a variety of users. Backed benches should be considered as a preferred accessible option.

h) Provide spaces in seating areas to accommodate mobility devices.

i) Set a metric for providing seating at regular intervals on busy pedestrian streets. The Global Alliance on Accessible Technologies and Environment (GAATES) cites a best practice of the provision of seating every 30 metres in their *Illustrated Technical Guide to the Accessibility Standard for the Design of Public Spaces*.

Moveable seating

Seating and tables near Jean Talon Market, Montreal

Long backed and unbacked benches, New York City

Lighting

Lighting plays a key role in the design, comfort, usability, and safety of an urban park. Lighting can be used to enhance design elements, articulate adjacent facades, facilitate wayfinding, and animate the site. Light also extends the usable hours of the park into the evening and at night.

Guidelines

a) Provide adequate lighting to improve safety in the space. Consult Crime Prevention Through Environmental Design (CPTED) for additional direction.

b) Use fixtures that are dark sky compliant, which reduce glare, light trespass, and light pollution, including use of full cut-off lighting.

c) Use fixtures that are energy efficient, with automated timers.

d) Create a standardized palette of types, styles and varieties of decorative lighting for parks that takes into account maintenance requirements, and minimizes the total number of types used.

e) Use a variety of lighting scales and types, including lighting bollard, pedestrian lights, and catenary lighting.

f) Where events are anticipated, incorporate electrical hookups and event signage into the light posts.

g) Use lighting to clearly identify the path of travel through the site.

Lighting identifies the path in a park

Creative and dynamic use of lighting in a park

Public Art

Public art can be used as a placemaking and programming element within an urban park. It can integrate cultural heritage into the fabric of the park, or establish a new narrative for the community. Well designed, engaging, and thought provoking public art has the potential to draw visitors, and can contribute to the success and vitality of the space. A single public art piece can serve as an organizing element for the urban park or identify significant gateways or points of arrival. A series of art pieces can also act as wayfinding elements.

Guidelines

a) Allocate a percentage of capital cost of new park projects for public art.

b) Create a fund for public art maintenance and an account to pool public art funds.

c) Public art should be considered throughout the planning and detail design for urban park projects with a public artist included as a core member of the team.

d) Public art should enhance the public realm through artistic excellence and originality, and be appropriate to the site or location's physical and cultural context.

e) Consider the full range of possibilities for public art in urban parks including freestanding work and site specific work that is integrated into paving, lighting, furnishings, retaining walls, etc.

f) Public art should not obstruct pedestrian, cyclist or vehicular circulation, entrances, windows, or sight lines to important natural and built features.

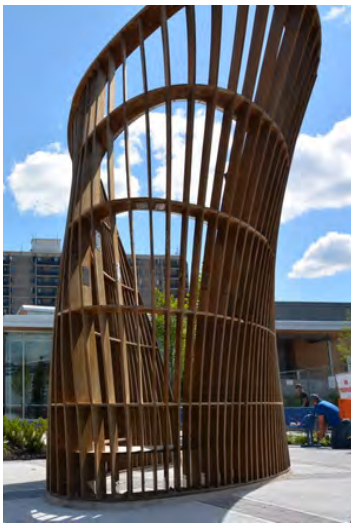
g) Public art should not impact, or be diminished by existing or planned utility locations.

h) Public art should exhibit high quality construction, installation and materials, as appropriate for its intent.

i) Appropriate maintenance procedures should be secured with the installation of public art.

j) Selection of public art will include the involvement of the City of Peterborough's public art facilitator to ensure consistency with the goals of the Official Plan and the City's Public Art Policy and Procedures (2022).

Watermark by Gerald Beaulieu, Fredericton, New Brunswick



Your Story by Patrick Li at Library Square

UN Peacekeepers Monument in Quaker Foods City Square

Other Features

Urban parks should also consider including a number of other facilities that support a variety of active and passive programming amenities.

Guidelines

a) Playgrounds, play equipment, outdoor workout equipment will be approved by the City. Play areas are to be set back from the street. Grading around playground areas is to be designed to allow clear views into the play area from the road and surroundings.

b) Drinking fountains and bottle stations may be appropriate for certain locations.

c) Dog runs may be considered within the context of the City's Off-Leash Dog Park Policy (2013) and will only be appropriate in Urban Community Parks. The Urban Community Park must be able to accommodate a fenced area with a preferred minimum enclosure of 8040 square metres (2.0 acres) with segregated areas for large and small dogs. Off Leash Dog areas should be well buffered from playgrounds, splash pads, wading pools, pedestrian activity areas and horticultural displays.

d) Waste and recycling receptacles should be selected in coordination with the design of other park furnishings.

e) Spray pads or similar water play features may be provided depending on the park size. Water supply, plumbing and drainage will conform to requirements of the City.

f) An amphitheatre/performance stage may be appropriate depending on the urban park type, the park location and programming anticipated.

Overhead shade structure

Games tables, New York

Water play feature at Tuner Park, Peterborough

peterborough