Model Urban Design Guidelines

Niagara Region

BrookMcIlroy/

March 2025

Land Acknowledgement

Niagara occupies much of the Niagara Peninsula and is bounded by the Niagara River, Lake Ontario and Lake Erie. This land is steeped in the rich history of the First Nations, including the Hatiwendaronk, the Haudenosaunee, and the Anishinaabe, and the Mississaugas of the Credit First Nation.

Niagara is situated on lands bound by the Niagara Purchase and Between the Lakes Treaty, and was the location of one of the first treaties with the British Crown in 1764, known as the Treaty of Niagara. There are many First Nations, Métis, and Inuit from across Turtle Island that live and work in Niagara today. The Regional Municipality of Niagara stands with all Indigenous peoples, past and present, in promoting the wise stewardship of the lands on which we live.

Contents

1.0 Introduction

Figure 1: Niagara Region is a vibrant and enticing destination for people to live, work, and play.

The Model Urban Design Guidelines update (the "MUDG update") has been developed to provide a set of design approaches and best practices for the Niagara Region. Building upon the 2005 Model Urban Design Guidelines, the guidelines reflect the Region's changes over the past 20 years within its diverse 12 Local Area Municipalities.

Where local design guidelines are not available, the MUDG update will be referenced while evaluating development projects subject to the Planning Act. The guidelines are intended to promote high-quality places for people, architecture, and reflect Niagara's unique local contexts and diverse landscapes.

The MUDG update reflects current and emerging demands for sustainable development and ensures that Niagara is equipped with appropriate design parameters to support the continued development of healthy, sustainable, and climate resilient communities. The MUDG update will help raise the level of design excellence for new developments and will preserve, compliment, and enhance the existing natural and cultural landscapes in the Region.

Design guidance emphasizes the promotion of local well-being, landscape driven design, placemaking, built-form transitions to sensitive areas including agriculture and natural heritage features, and enhanced public realms.

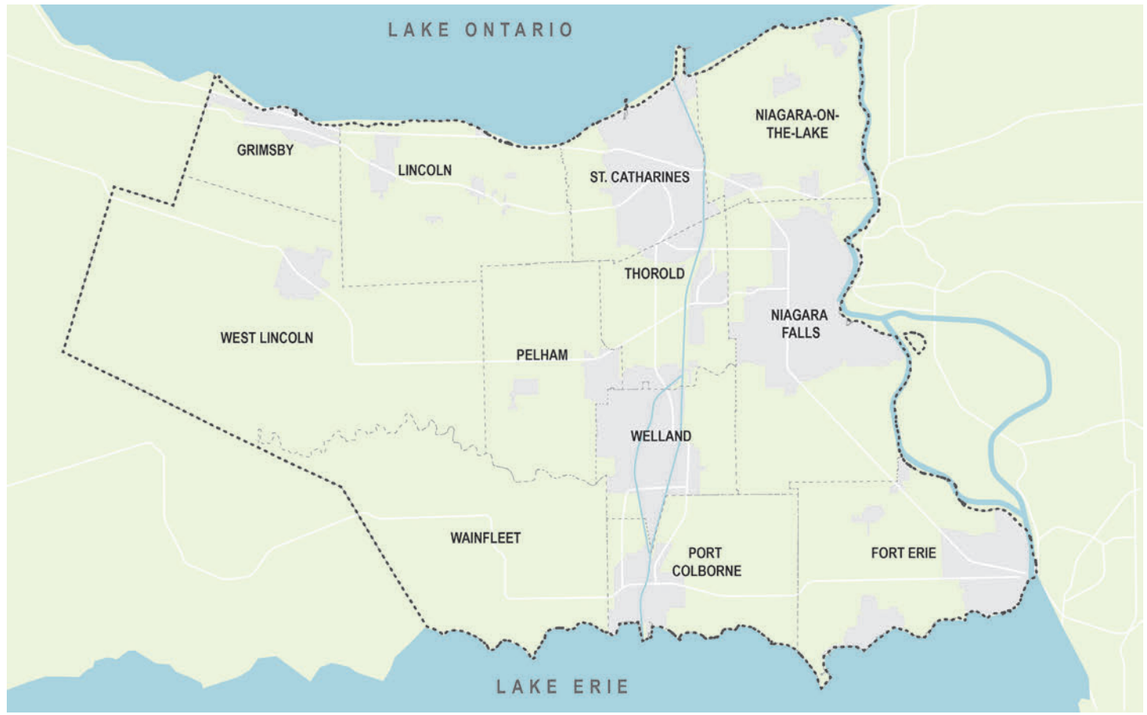


Figure 2: Map of the 12 Local Area Municipalities in the Region of Niagara.
Figure 3: 2051 Population and employment forecasts by Local Area Municipality (table on the right).

In addition, the update complements policy efforts many municipalities have undertaken to advance complete streets, integrating active transportation facilities into the street, and establishing a multi-modal road network.

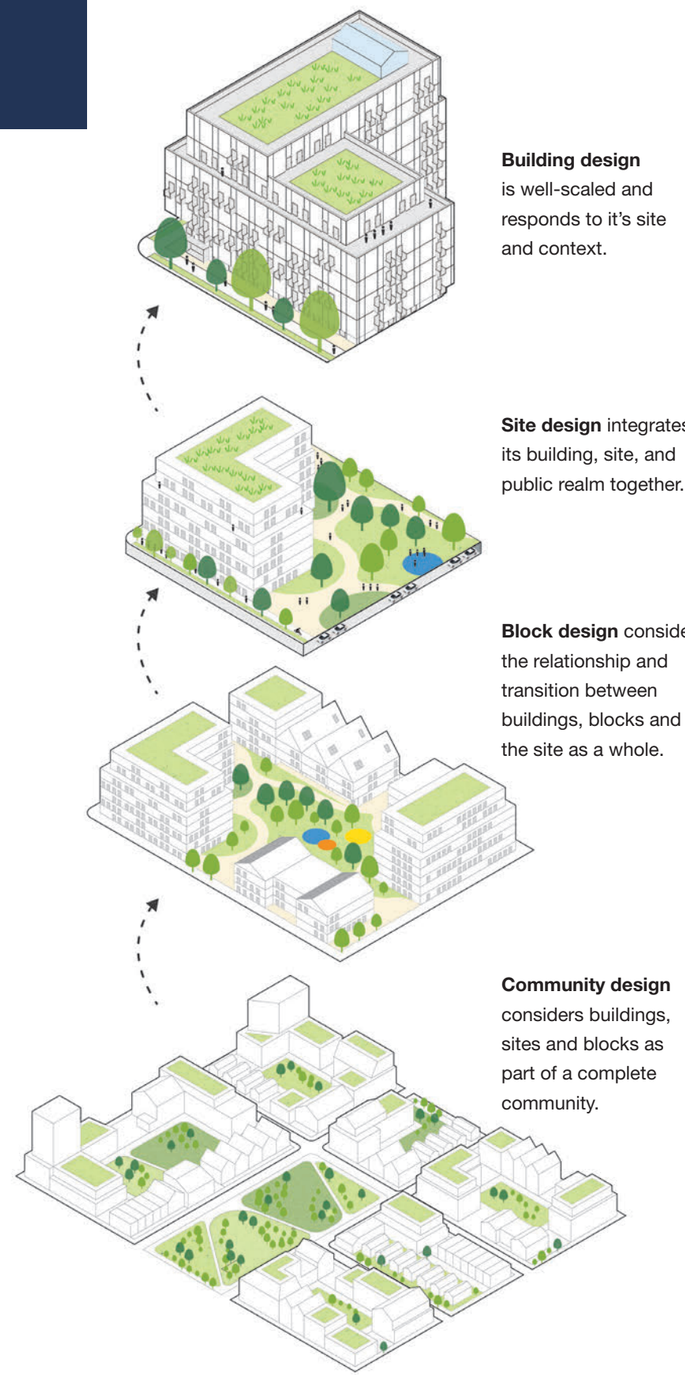
The population of Niagara is forecasted to be 694,000 and 272,000 jobs by 2051. This substantial growth provides Niagara with an opportunity to continue to evolve to meet the needs of its growing population and visitors. The continued investment into the Region will attract new residents, businesses, visitors, and encourage positive development opportunities.

Municipality	Population	Employment
Fort Erie	48,050	18,430
Grimsby	37,000	14,960
Lincoln	45,660	15,220
Niagara Falls	141,650	58,110
Niagara-on-the-Lake	28,900	17,610
Pelham	28,830	7,140
Port Colborne	23,230	7,550
St. Catharines	171,890	79,350
Thorold	39,690	12,510
Wainfleet	7,730	1,830
Welland	83,000	28,790
West Lincoln	38,370	10,480
Niagara Region	694,000	272,000

The Model Urban Design Guidelines will be used by planners, designers, propert developers and municipal and regional staff to evaluate development applicatio support the development of master plan inform Environmental Assessments, and design processes that shape developme The Guidelines will also support and infc the development of municipal design po zoning regulations, and the review of site building elevations, and landscape plans Guidelines are intended to be easily acc to the public, facilitate dialogue, and cre common understanding of urban design

The MUDG update provides design guid for a range of building typologies, site de and connections to the public realm incl streets, parks, natural and other green s The guidelines complement and support municipal Official Plans and regional pol documents such as:

- Niagara Official Plan (2022)
- Transportation Master Plan (2017)
- Complete Streets Design Manual (2023)
- Access Management Guidelines (2
- Niagara Region Stormwater Management Guidelines (2022)



Building design is well-scaled and responds to it's site and context.

Site design integrates its building, site, and public realm together.

Block design considers the relationship and transition between buildings, blocks and the site as a whole.

Community design considers buildings, sites and blocks as part of a complete community.

The Model Urban Design Guidelines reflect the Region's commitment to growth that balances economic, social, and environmental needs:

- The Guidelines are intended to be a starting point for urban design by demonstrating best practices.
- The Guidelines show how future plans consider urban design comprehensively in relation to an existing and planned context.
- The Guidelines promote a framework for well-defined and balanced development within buildings and sites. They do not prescribe architectural styles, construction standards or built projects.
- The Guidelines are intended to be applied holistically alongside other applicable policies, guidelines, and legislative documents.
- Each guideline requires the reader to consult other applicable guidelines and/or other applicable sources and references that apply to the development.

These guidelines are available to municipalities and should be adapted for the community context. Where municipalities do not have specific area guidelines, the Model Urban Design Guidelines should be referenced.

Over time, municipalities are encouraged to share their experience using the guidelines with the Region and one another to guide changes for future updates. This reciprocal engagement model will contribute to the diversity and richness of Niagara's built and natural environments.

Figure 4: Niagara's communities include historic centres that are attractive to visitors and residents alike.
Figure 5: Niagara Falls is a world class destination that capitalizes on the natural beauty of the area.

1.2 How to Use This Document

The MUDG update is organized into seven sections and is intended to provide guidance on urban design best practices across the Niagara Region. The guidelines guide community, block, site, and building design for a variety of building typologies and the public realm in urban settings and fringe areas where these abut rural lands. Each scale of design includes sustainability and well-being guidelines. While the guidelines provide a strong foundation for establishing design guidance for Niagara, it is recommended that Area Municipalities prepare context-specific guidelines for their communities based on these guidelines.

Section 1.0 Introduction, provides introductory information on the purpose and application of the guidelines, explains how to use the document, and elaborates on the historical background and context of the Niagara Region.

Section 2.0 Guiding Principles, establishes a series of Guiding Principles, which sets the vision and key objectives for urban design across the Region. The Principles are intended to inspire Area Municipalities in the preparation of context-specific guidelines.

Section 3.0 Community Design, contains guidelines to inform development related to broader community design considerations, including streets and blocks, laneways, views and vistas, and interfaces with natural heritage, parks and open spaces, cultural heritage properties, waterfronts, waterways, PMTSAs, and intensification areas, inclusive community placemaking, and neighbourhood structure.

Section 4.0 Block Design, provides Design Guidelines for block design. Guidelines provide direction on various site design elements including block design and structure, laneways and mid-block connections, utilities and services, community facilities, lot design, and public art.

Section 5.0 Site Design, contains Design Guidelines and direction on various site design elements including microclimate design, pedestrian circulation, parking, landscaping, site signage and wayfinding, site lighting, and servicing, storage and loading areas.

Section 6.0 Building Design, provides general building design guidelines that are applicable to the development of all new buildings and buildings forms within the region. Form-specific standards for low-rise, mid-rise, and tall buildings should be applied to new development as relevant, in addition to the general building design standards.

Section 7.0 Building Uses, contains design guidelines based on building uses, which include commercial, multi-unit residential, mixed use, community facilities, amenities, and employment building uses. These guidelines should be applied to new development as relevant.

Development applications should reference the MUDG update where applicable as well as relevant Municipal and Regional design Terms of References to ensure requirements for complete development application submissions are met.

Section Number

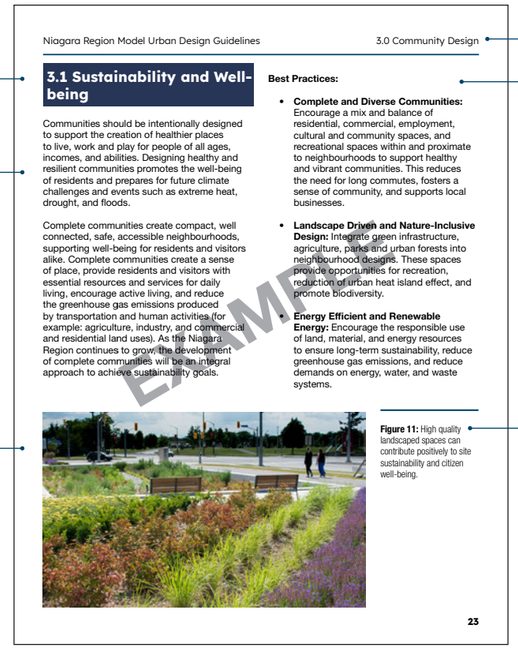
Section Title

Section Table of Contents

Section Number and Title

Context and Rationale

Precedents, Supporting Images or Diagrams

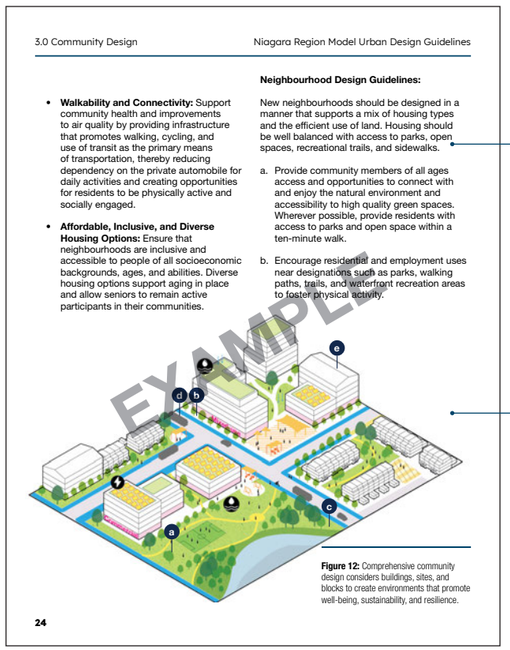


Section Title

Best Practices

Figure caption

- Example Page 1 of the Niagara Region Model Urban Design Guidelines.



Guidelines

Guideline Graphics

Section Title

Precedents, Supporting Images or Diagrams

2.0 Guiding Principles

Figure 6: Niagara is home to a thriving viticulture industry that promotes regional tourism, such as the 13th Street Winery in St. Catharine's.

The following Guiding Principles are meant to serve as a base for area municipalities as they prepare municipal or area-specific urban design guidelines. Municipalities should adapt or change the Guiding Principles to speak to the unique urban design goals and opportunities of their community.

1. New development will enhance the unique character of Niagara's communities by:

- Supporting and complementing the scale of existing built-forms and landscapes while also providing appropriate density.
- Integrating community streets and trails with existing networks.
- Promoting placemaking that deepens a respectful relationship with Niagara's Indigenous communities and equity-deserving groups.
- Creating sustainable developments for a holistic approach to climate change and community well-being.

2. Walkable, bikeable, transit-oriented communities will support a healthy Niagara by:

- Locating pedestrian boulevards, dedicated cycling routes, and multi-use trails to connect neighbourhoods with vibrant main streets and employment areas.
- Creating universally accessible connections throughout public and private spaces.
- Promoting a high quality public realm that provides options for active transportation to support healthy living, activation of streets, and enjoyment of the unique qualities of Niagara's communities.
- Reflecting the cultural diversity of the region in streets, parks and open spaces through public art, high-quality architecture, and landscape installations.

3. Development of urban areas will help protect and preserve agricultural land and natural resources by:

- Ensuring appropriate transitions through built-form and landscaped buffers along fringe lands to protect important agricultural and natural resources.
- Promoting publicly accessible and vibrant waterfronts.
- Protecting and enhancing the Niagara Escarpment as a UNESCO World Heritage Biosphere.
- Encourage the design of developments to feature views and vistas to agricultural or natural areas unique to Niagara, reinforcing a sense of place.

4. Development and open spaces will be sustainable and resilient by:

- Creating sustainable development models that will promote best practices in buildings, site design, and landscaped open spaces.
- Encouraging passive building design through site and building orientation to maximize sunlight access, mitigate heat island and wind effects.
- Protecting and strengthening Niagara's system of parks and open spaces as important community assets.
- Increasing Niagara's tree canopy to promote a green streetscape and a sustainable, comfortable public realm.
- Fostering innovation in design and development by integrating green energy generation, water conservation, grey water usage, and drought tolerant planting.

5. Compact built form will optimize use of land and resources by:

- Designing and locating buildings to protect and celebrate Niagara's unique natural setting and the Niagara escarpment for future generations.
- Providing well-scaled and appropriate intensification based on place-specific characteristics of each area.
- Designing human-scaled and varied built form that transitions well to adjacent lands and properties.
- Balancing density and ensuring that people have access to ample amenity spaces, sunlight, views and privacy to nurture human health and well-being.

6. A mix of uses will support vibrant and complete communities by:

- Providing options for living and working in close proximity.
- Supporting local amenities and community uses on main streets as an additional way of activating core areas throughout the day.
- Creating public realm improvements along streets, parklands and waterfronts which will enhance Niagara's thriving tourism sector.

7. A range of housing opportunities will support affordability by:

- Blocks should offer varied housing options through form and unit type, including physically accessibility.
- Providing varied housing options to ensure people have a diversity of housing types available at all stages of life.
- Creating a mix of housing options that will offer greater affordability throughout the region and within urban centres.

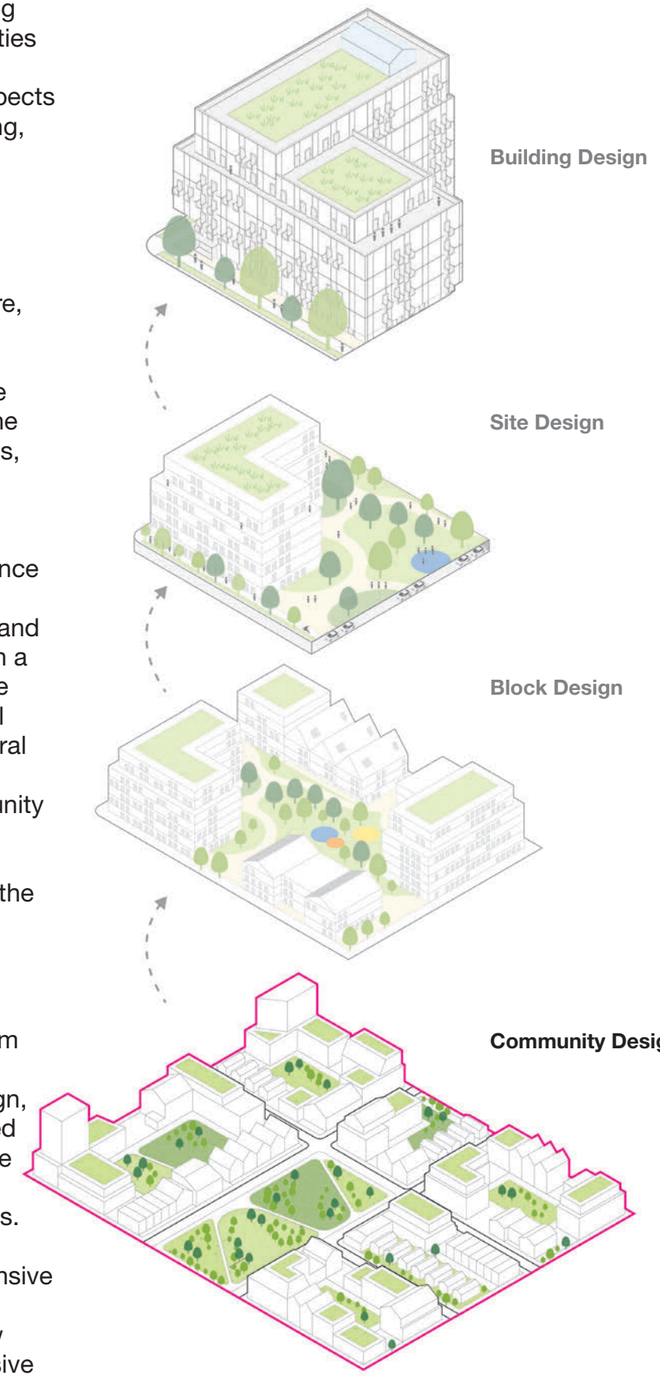
Figure 7: A high-quality public realm and enhance the identity of Niagara's communities.

3.0 Community Design

Urban design is an important part of creating successful and resilient complete communities with a sense of place. Community design shapes the physical, social, and cultural aspects of communities. Through intentional planning, design, development, and management of spaces, communities can foster a sense of belonging and well-being among residents. Community design encompasses various elements and requires the consideration by municipalities of urban planning, architecture, landscape architecture, environmental sustainability, social equity, and public participation. Section 3.0 provides guidance on Community Design that should inspire the preparation of Secondary Plans, Block Plans, Master Plans, and Neighbourhood Plans throughout the Niagara Region.

At its core, community design aims to enhance the quality of life for individuals by creating environments that are functional, inclusive, and resilient. Community design relies greatly on a landscape design approach in laying out the parts of the community to reflect the natural beauty of the Niagara Region, with the natural environment woven into the urban and rural fabric. Architecture should reinforce community values and complement the natural beauty of Niagara. This approach should be at the forefront of policy and design decisions for the communities in the Region.

Communities should be designed in a comprehensive manner to ensure the well-being of residents and visitors, allowing them to meet their needs in a local context. By applying a comprehensive community design, context-specific elements such as integrated open space and built forms with considerate transitions to open spaces, including public realm, parks and other open space elements. Emphasizing human scale building design, architectural expression, and climate responsive design, including wind mitigation, sunlight access and shade, are key elements of how communities are designed in a comprehensive manner.



Applying a comprehensive community design manner in Niagara may include:

- Well-defined and integrated community structures as outlined in high-level municipal documents to set a vision for hierarchy of built-form and density across a municipality, such as the location of intensification areas and corridors.
- Thorough analysis that considers the impact of community structure, planning, and urban design policies on the health, well-being, inclusivity, vibrancy, and sense of place within new and existing communities.
- Accessible and sustainable developments should include a high standard of urban design.
- Cohesive and efficient use of existing land and building stock including infill buildings and sites adjoining new urban areas to existing neighbourhoods.
- Consideration for interfaces between differing components of a community such as natural heritage and agricultural lands, natural and cultural elements, views and vistas, cultural heritage properties, waterfronts, parks and open spaces, MTSAs, intensification areas, are critical to community cohesion and success.

Individual developments within the Region should be informed by design considerations that influence the broader community, including the design of streets and blocks, public and private interfaces, land use transitions, inclusive community placemaking and public art. The design of all sites should contribute to the enhancement of the overall community through compact and efficient growth, and a vibrant public realm that is contextually appropriate, and should celebrate the unique sense of place in each neighbourhood and community.

Figure 8: Accessible public spaces and placemaking are vital for fostering social inclusion and community cohesion by providing environments where people of all ages, abilities, and backgrounds can interact and engage. These spaces contribute to the vibrancy and livability of cities, promoting physical activity, mental well-being, and a sense of belonging among residents. Image of Bay Beach Park in Fort Erie.

3.1 Sustainability and Well-being

Communities should be designed to support the creation of healthier places to live, work, learn, and play for people of all ages, incomes, and abilities. Designing healthy and resilient communities promotes the well-being of residents and prepares for future climate challenges and events such as extreme heat, excessive rainfall, drought, and floods. Communities can benefit from analyzing existing opportunities and challenges with respect to environmental sustainability.

Complete communities create compact, well connected, safe, accessible neighbourhoods, supporting well-being for residents and visitors alike. Complete communities create a sense of place, provide residents and visitors with essential resources and services for daily living, encourage active living, and reduce the greenhouse gas emissions. As the Niagara Region continues to grow, the design and development of complete communities will be an integral approach to achieve sustainability goals.

Best Practices:

- **Complete and Diverse Communities:** Encourage a mix and balance of residential, commercial, employment, cultural and community spaces, and recreational spaces within and proximate to neighbourhoods to support healthy and vibrant communities. This reduces the need for long commutes, fosters a sense of community, and supports local businesses.
- **Landscape Driven and Nature-Inclusive Design:** Integrate green infrastructure, agriculture, parks and urban forests into neighbourhood designs. These spaces provide opportunities for recreation, food security, reduction of urban heat island effect, retention and reuse of rainwater, and promote biodiversity.
- **Efficient and Renewable Energy:** Encourage the responsible use of land, material, and energy resources to ensure long-term sustainability, reduce greenhouse gas emissions, and reduce demands on energy, water, and waste systems.

Figure 9: High quality landscaped spaces can contribute positively to site sustainability and the well-being of people.

- **Walkability and Connectivity:** Support community health and air quality by providing infrastructure that promotes walking, cycling, and use of transit as the primary means of transportation, thereby reducing dependency on the private automobile. Recognize that not everyone is able or wants to drive, and connected communities allow all people to participate in daily activities. This is especially important to youth that need safe ways to get to school and employment.

- **Affordable, Inclusive, and Diverse Housing Options:** Ensure that neighbourhoods are inclusive and accessible to people of all socioeconomic backgrounds, ages, and abilities. Diverse housing options support aging in place and allow seniors to remain active participants in their communities.

Neighbourhood Design Guidelines:

New neighbourhoods should be designed in a manner that supports a mix of housing types and the efficient use of land. Housing should be well balanced with access to parks, open spaces, recreational trails, and sidewalks.

a. Provide community members of all ages access and opportunities to connect with and enjoy the natural environment and accessibility to high quality green spaces. Wherever possible, provide residents with access to parks and open space within a ten-minute walk.

b. Encourage residential and employment uses near designations such as parks, walking paths, trails, and waterfront recreation areas to foster physical activity and enjoyment of the natural environment.

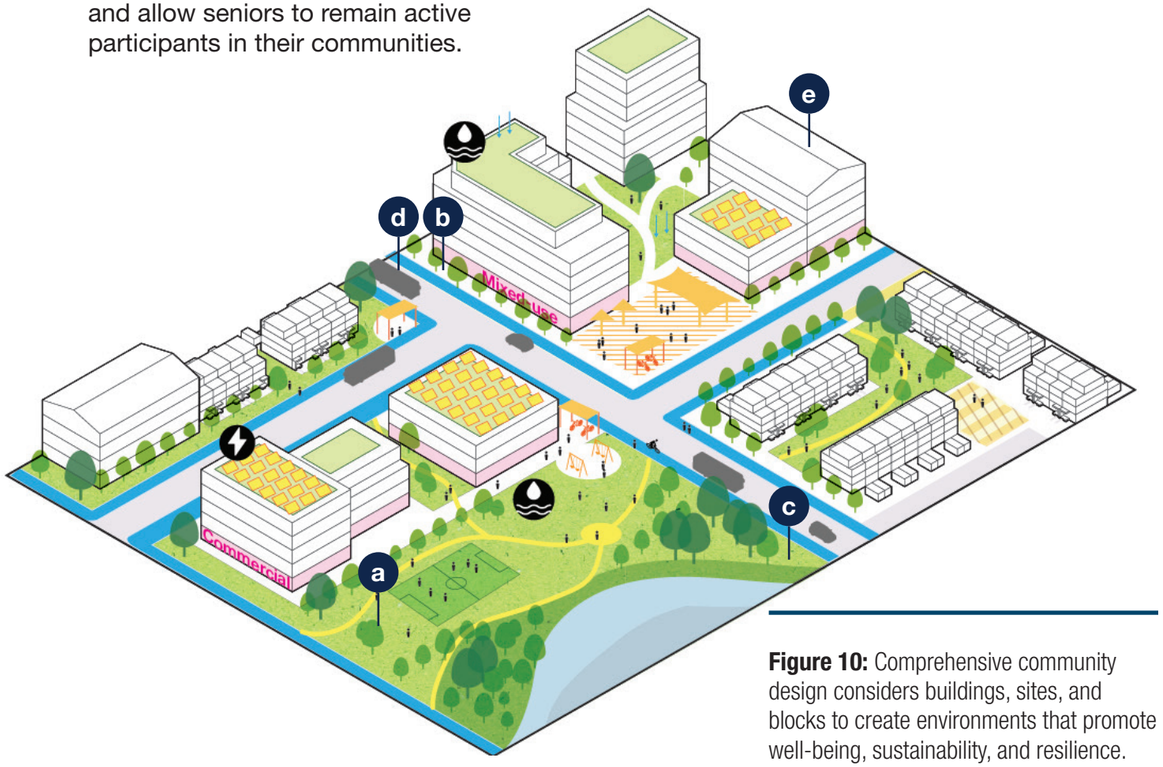


Figure 10: Comprehensive community design considers buildings, sites, and blocks to create environments that promote well-being, sustainability, and resilience.

c. Future growth and development should be planned and constructed to preserve important natural heritage system features, while also providing access to educational and recreation activities through a network of parks, trails, and public spaces.

d. Neighbourhood design and development should support adequate densities and a range of complementary uses. Transit facilities should be convenient to use and situated at key destinations, where pedestrian activity is high.

e. Promote greater land use efficiency by siting increased density close to transit facilities and within mixed-use centres to support transit and pedestrian mobility choices. Higher residential densities, mixed uses, retail, and employment opportunities should have access to higher order transit from neighbourhood centres.

f. Neighbourhood design and land use designations should consider impacts on community health especially for vulnerable populations (e.g. children and seniors) when located adjacent to high traffic, trucking and highway corridors. The design of the community should reduce exposure to noise that can introduce or aggravate stress-related health outcomes.

g. Community design should promote alternative modes of travel, such as walking, bicycling and public transit can be promoted through the design of high-quality, complete streets. Alternative modes of travel can help reduce automobile congestion, pollution and improve public health.

h. Development and intensification should occur within existing urban areas to reduce pressure on natural features, open spaces, rural and agricultural lands.

Figure 11: Active street frontage should be animated and vibrant, and supported by strong relationships between built form and the public realm.
Figure 12: Neighbourhood design should encourage sustainable modes of transportation, including connections for active transportation such as cycling connections, bicycle parking and related infrastructure.

Environmental Sustainability Guidelines:

Healthy communities are designed with a focus on environmental sustainability. The guidelines support community design that considers energy demand, stormwater management, and the lifecycle of materials.

i. Through the preservation of natural vegetated environments, extensive landscaping, and the appropriate use of porous surfaces, urban design strategies can improve water quality, and reduce water runoff and urban heat island effect. Reducing water runoff helps control erosion, river and stream pollution, and can recharge depleted groundwater resources.

j. Preserve and expand existing tree cover to connect and buffer protected woodlands and other natural areas to help mitigate heat island impacts.

k. New developments should incorporate both active and passive strategies to reduce demand and increase energy efficiency to minimize the impact on the conventional energy distribution network, while also promoting the use of alternative clean and renewable energy sources.

l. Adaptive re-use of existing buildings and structures is encouraged to minimize the embodied carbon footprint of new communities.

m. Stormwater management features should be strategically located, maintained, and protected to take advantage of the existing topography and drainage patterns. Naturalized ponds should incorporate native plantings and overbank shade to enhance biodiversity.

Figure 13: Bioswales located at walkways and parking lots can collect stormwater runoff to minimize the dependency on stormwater sewers.

Reference Guidelines:

- Niagara Region Complete Streets Design Manual
- Accessibility for Ontarians with Disabilities Act, 2005 (AODA) standards
- Crime Prevention Through Environmental Design (CPTED)
- Niagara Energy Conservation and Demand Management Plan
- Niagara Official Plan 2022, Chapter 3.1

Figure 14: Farmer's markets exist throughout the region and feature locally grown, seasonal produce, and artisanal goods. Consumers who are able to support sustainable agricultural practices and local foods typically have a smaller carbon footprint compared to products that are transported over long distances.

3.2 Streets and Streetscapes

Complete streets accommodate multiple modes of transportation, people of all ages and abilities, and support adjacent land uses. Complete streets include infrastructure that improves circulation, comfort, the public realm, and encourages active forms of transportation. The benefits of complete streets include increased investment into local businesses, improved community health through active transportation, increased property values, universal accessibility, and a reduction in vehicle traffic and carbon emissions. Streetscapes help to define a sense of place, identity and character.

This section provides guidance for municipal streets. For guidance related to Regional Roads, see the Region's Complete Streets Manual. Dimensions are meant to reflect best practices and a starting point for street design. As the street design evolves, it may be necessary to vary the dimensions to suit existing conditions.

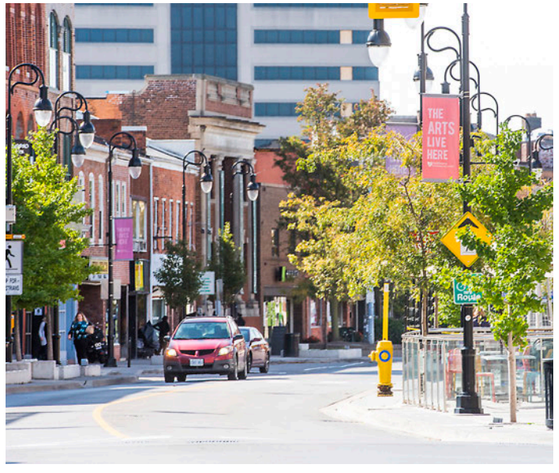


Figure 15: Niagara's streetscapes should be welcoming, green, and vibrant to support thriving businesses, attract intensification, and promote social interaction and well-being.

Best Practices:

- **Active Transportation:** All newly designed or retrofitted streets should consider active transportation and ensure that pedestrians, cyclists, and transit passengers can travel safely. Where transit is available, transit facilities should be incorporated in the design of all streets to encourage high levels of ridership and cost-efficient operation.

- **High-Quality Spaces:** Through the integration of amenities such as street furniture, banners, art, street trees and special paving, wayfinding signage, along with historical elements and cultural references, promote a 'sense of place' and enhances the pedestrian experience.

- **Scale:** Pedestrian through zones and planting and furnishing zones should be designed according to the function and nature of adjoining land uses. For example, wide sidewalks are important for many commercial areas with high pedestrian volumes.

- **Safe and Accessible:** Pedestrian through zones and planting and furnishing zones should be designed and built free of hazards and to minimize conflicts with external factors such as vehicular movements and protruding architectural elements.

- **Flexible:** Road design should reflect adjacent land use types and requirements. Road design can be flexible so that a variety of land use types can be adequately served by the same road.

- **Positive Appearance:** All streets should be designed to provide a strong visual quality that enhances the amenity of adjacent properties using high quality landscaping, lighting, pavement materials, and on-street parking where appropriate.

- **Living Streets:** Tree-lined streets soften the visual quality of the public realm by creating a physical buffer between the pavement, the sidewalk and private developments, and calm traffic, contributing to a more inviting and comfortable space while reducing the urban 'heat island' effect.

- **Minimize Pavement Width:** The widths of streets should be developed in accordance with the land-use needs and operational safety requirements and the provision of an enhanced pedestrian realm. The width of travel lane pavements should be kept as narrow as practically feasible, to encourage traffic to slow down, create more intimate streetscapes, and facilitate pedestrian crossings.

- **On-street parking** should be provided at existing established commercial locations and in downtowns. On-street parking can reduce requirements for surface parking lots, generally reduces traffic speeds, and supports pedestrian activity by providing a physical barrier between the sidewalk and moving traffic. It should be balanced with generous pedestrian facilities, cycling facilities, and street trees.

Right-of-Way and Street Infrastructure:

Street infrastructure such as bioswales, street trees and landscaping can help promote stormwater infiltration and promote more sustainable communities.

a. Bioswales are a viable approach for maximizing water infiltration and cleansing stormwater runoff and should be incorporated into road cross sections wherever possible. Refer to Section 5.5 Landscape Design for guidance.

b. Permeable pavers can be used to reduce water runoff.

c. Street trees and street landscaping should be local native species. Plants that grow naturally in the Region of Niagara are adapted to the local climate and soil conditions and have a better than average chance of surviving with minimum upkeep, use of fertilizer, pesticide or irrigation.

d. Solar power should be incorporated into the design of street lighting and transit facilities to supplement the power requirements of street infrastructure.

e. The selection of streetscaping elements should be determined by suitability, durability, ease of maintenance and cost effectiveness, considering whole of lifecycle costing, and achieving energy savings and reduction in greenhouse gas emissions over the life-cycle.

f. Street trees should be located in a manner that supports adequate street tree soil volumes of at least 30 cubic metres.

Street Furniture Guidelines:

Street furnishings contribute to the identity of a community and promote placemaking.

g. Street furnishing may be selected with reference to the Niagara Region Complete Streets Design Manual. Furnishings should be AODA compliant.

h. Street furnishings should be developed within an overall thematic concept and should provide a consistent and unified streetscape appearance. Preference should be given to durable materials.

i. Street furnishings should be placed in a coordinated manner that does not obstruct pedestrian circulation on sidewalks, and vehicular circulation to driveways, parking, loading and service areas.

j. Street furnishings should be placed within a distinct furniture zone and furniture oriented to face passers by, shows, and other points of visual interest.

k. Consideration should be given to providing additional pedestrian-scale lighting in areas along arterial roads where there is a high volume of pedestrian activity, such as at key intersections, transit stops, trail crossings, etc. Pedestrian lighting may be designed as a freestanding fixture or be added to existing vehicular light poles.

l. Benches and multi-stream waste receptacles should be provided at all transit shelters and at 'gateway' and arterial and collector street intersections, where there is significant pedestrian activity.

m. Opportunities for cultural heritage commemoration should be explored and prioritized, especially where intangible and Indigenous heritage can be acknowledged and celebrated.

Figure 16: High quality street furnishings and plantings can encourage pedestrian activity and enjoyment of the public realm (Oakville Streetscape Lakeshore Rd, Brook McIlroy, Photographer: Tom Ridout)

Street Lighting Guidelines:

Street lighting is an important component of the feeling as well as utility of our streets.

n. All lighting should be located within the road boulevard, at least 1.0m from the curb.

o. The design and location of lighting should consider the impacts of light pollution, energy efficiency, and any potential negative impacts on adjacent Natural Environment areas, wildlife habitats. Downcast lighting is recommended.

p. Character lighting fixtures should be located on all roads considered for gateway treatments.

q. Energy efficient LED light technology should be considered for all municipal lighting.

r. Road scale lighting no greater than 9.0 metres high should be provided to contribute to the safety and comfort of the streetscape. Lighting should be downcast to reduce light pollution.

s. Pedestrian-scale lighting no greater than 4.5 metres high should be provided to contribute to the safety and comfort of the streetscape. Lighting should be downcast.

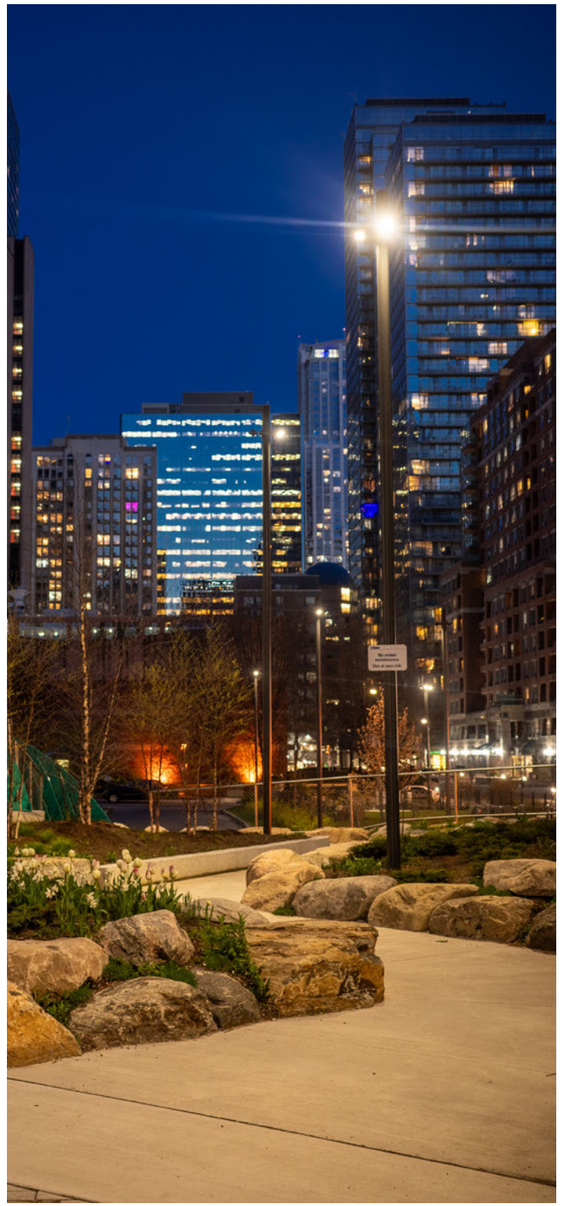


Figure 17: Street lighting should integrate well with the built environment and public realm.

Road Hierarchy and Road Function:

The road network is characterized by the road function and the following hierarchy which is generally guided by Transportation Master Plans that examine existing and projected land use and anticipated traffic trips and roadway volumes.

- Regional Roads: Regional road design should be planned and designed in accordance with the Niagara Region's Complete Streets Design Manual, Niagara Region's Access Management Guidelines, TAC Geometric Design Guide for Canadian Roads, Ontario Books and local design standards. Municipal roads of all types must integrate well with Regional Roads and should offer similar amenities to promote cohesion.

- Municipal Arterial Roads: Arterial Roads provide long-range and efficient access throughout the municipality and serve a range of travel modes, including passenger vehicles, trucks, and transit.

- Urban Collector Streets: Urban Collector Streets provide important connections for residential neighbourhoods with commercial, employment and tourism areas, and typically include an urban cross section with curbs and sidewalks. Collector Streets are often well suited to provide frontage for mid-rise and tall buildings.

- Local Streets: Local Streets are situated in predominantly residential areas and are a defining element of residential neighbourhoods. They are well suited to provide frontage for mid-rise and low-rise buildings.

- Residential Laneways: Laneways provide access to private garage facilities and accessory dwelling units.

Figure 18: Cycling infrastructure attracts visitors to Niagara and helps people of all ages and abilities arrive safely at their destinations.

Municipal Arterial Road Guidelines:

t. A key design objective for Arterial Roads is to balance safety, visual amenities, and pedestrians, with a wide variety of functions including:

   - Large volume transport corridor
   - Transit
   - Gateways and entrances to town centres and neighbourhoods
   - Connections to Collector Roads
   - Potential connected cycling network, subject to cycling master plans

u. Arterial Roads rights-of-way may range from 21.0 to 36.0 metres and design standards should be flexible to reflect changes in adjacent land uses and traffic conditions.

v. The design of Arterial Roads should consider the following variables:

   - Lanes: The total number of lanes will range from 2 to 5, depending on traffic conditions.

   - Centre Median: A central median may be provided for traffic calming, help to visually break up large expanses of road surface, aesthetics, geometric design considerations, and access control in gateway locations. Medians can contribute to lengthening the pedestrian crossing distance of a street and should only be considered for specific purposes.

   - Sidewalks: Sidewalks should always be provided on both sides of the street and provide a pedestrian clearway width of at least 1.8 metres. This width should be increased to accommodate snow storage, enhance accessibility, and where existing or planned commercial uses are located.

   - Planting and furnishing zone: Boulevards are required for Arterial Roads in urban areas and should be at least 2.0 metres wide and planted with street trees and companion planting situated every 6.0 to 9.0 metres where adequate safety standards are met.

   - The location of sidewalks and plantings may vary depending on the level of traffic and adjacent land use. Sidewalks on high volume/speed Arterial Roads should be buffered by a landscaped boulevard. However, sidewalks on low volume/speed Arterial Roads or in village centres or downtowns may, for example, be situated adjacent to the curb.

   - Curbs: Curb design will vary depending on the nature of adjoining land uses. Typically, barrier curbs are required.

   - On-Street Parking: In the context of anticipated traffic volume/speed, adjacent land uses, and ability to maintain travel lanes, on-street parking may be permitted on Arterial Roads in commercial centres. Parking lane widths should generally not exceed 2.5 metres.

   - Bicycle infrastructure: Bicycle lanes should be curb separated and clearly identified with signage and/or pavements and be between 1.5 to 4.0 metres wide, depending on configuration and directionality. See the Niagara Region Complete Streets Design Manual for further information.

w. Connections to Arterial Streets should be provided at approximately 400 metre intervals, the average distance of a 5 minute walk.

x. Vehicle travel lanes should not exceed 3.5 metres in width. Wide travel lanes are required to ensure the safe movement of larger vehicles such as trucks, buses, and transit. However, 'reduced standards' should be used wherever feasible to promote traffic calming.

y. Private driveway access should be limited on arterial roads. Please refer to the Region's Access Management Guidelines for further details.

z. Arterial Road curb radii should be follow the guidance of the Complete Streets Design Manual.

aa. In downtown cores, main streets, and places with heritage value, utilities should be buried below grade - typically in the boulevard section of the right-of-way. The use of a joint utility trench is encouraged for access and maintenance benefits.

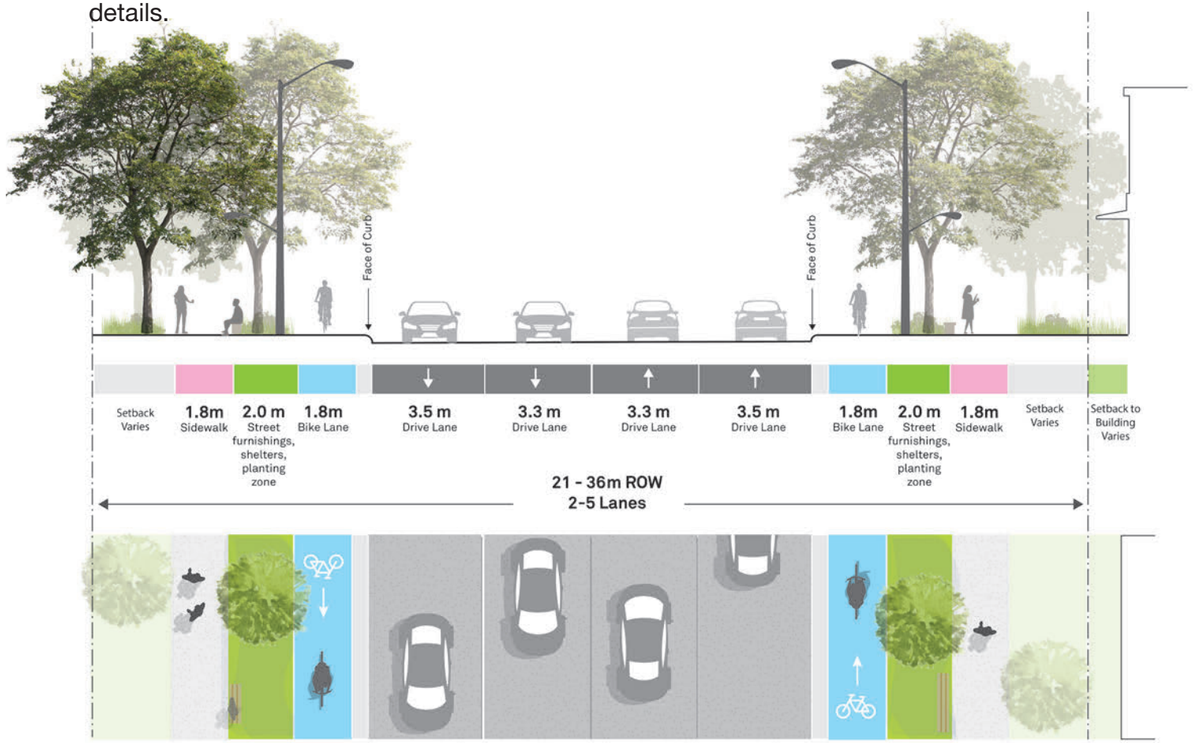


Figure 19: Sample section for a Municipal Arterial Road.

Collector Street Guidelines:

ab. Collector Streets should be designed to serve a variety of functions including:

- Transit
- Connections between neighbourhoods
- Connections to Local Streets
- Connections to Arterial Roads

ac. Collector Street rights-of-way may range from 19.5 to 26 metres and design standards should be flexible to reflect changes in adjacent land uses and traffic conditions.

ad. The design of Collector Streets should consider the following variables:

- Lanes: The total number of lanes will range from 2 to 4, depending on traffic conditions.

- Centre Median: A short centre median may be provided in gateway locations.

- Sidewalks: Sidewalks should always be provided on both sides of the street and contain a pedestrian clearway of at least 2.1 metres for accessibility. This width should be increased to accommodate snow storage and where existing or planned commercial uses are located.

- Planting and furnishing zones: Planting and furnishing zones are important to Collector Streets in urban areas and should be at least 2.5m wide and planted with street trees every 6.0 to 9.0m where adequate safety standards are met.

- Curbs: Curb design will vary depending on the nature of adjoining land uses. In some areas, 'soft shoulder' and bioswales may be provided. See Section 5.5 Landscape Design for guidance.

- On-Street Parking: On-street parking should be permitted on Collector Streets. Parking lanes should generally not exceed 2.5 metres. Where Collector Streets have more than 2 travel lanes, on-street parking should be located within parking laybys and curb extensions at intersections used to reduce the street crossing distance for pedestrians.

- Intersections: Where Collector Streets have more than two travel lanes, on-street parking should be located within parking laybys and curb extensions at intersections used to reduce the street crossing distance for pedestrians.

- Bicycle infrastructure: Bicycle infrastructure of 1.5m ~4.0m wide may be located on the roadway.

- Property Buffer: A 1.0m wide property buffer should be provided on both sides of the street. When applicable, a green vegetated property buffer is encouraged.

ae. Travel lane widths should not exceed 3.25 metres and may be reduced to 3.0 metres where off-peak on-street parking is provided.

af. To support active transportation facilities and reduce conflict points, alternatives to single access driveways to individual properties should be explored, (i.e., through joint access driveways). 'Right-in right-out' movements are preferred on Collector Streets.

ag. Curb radii from Collector Streets to Local Streets should be reduced to slow and calm vehicles as these enter local streets. Curb radii should be between 6 and 8 metres.

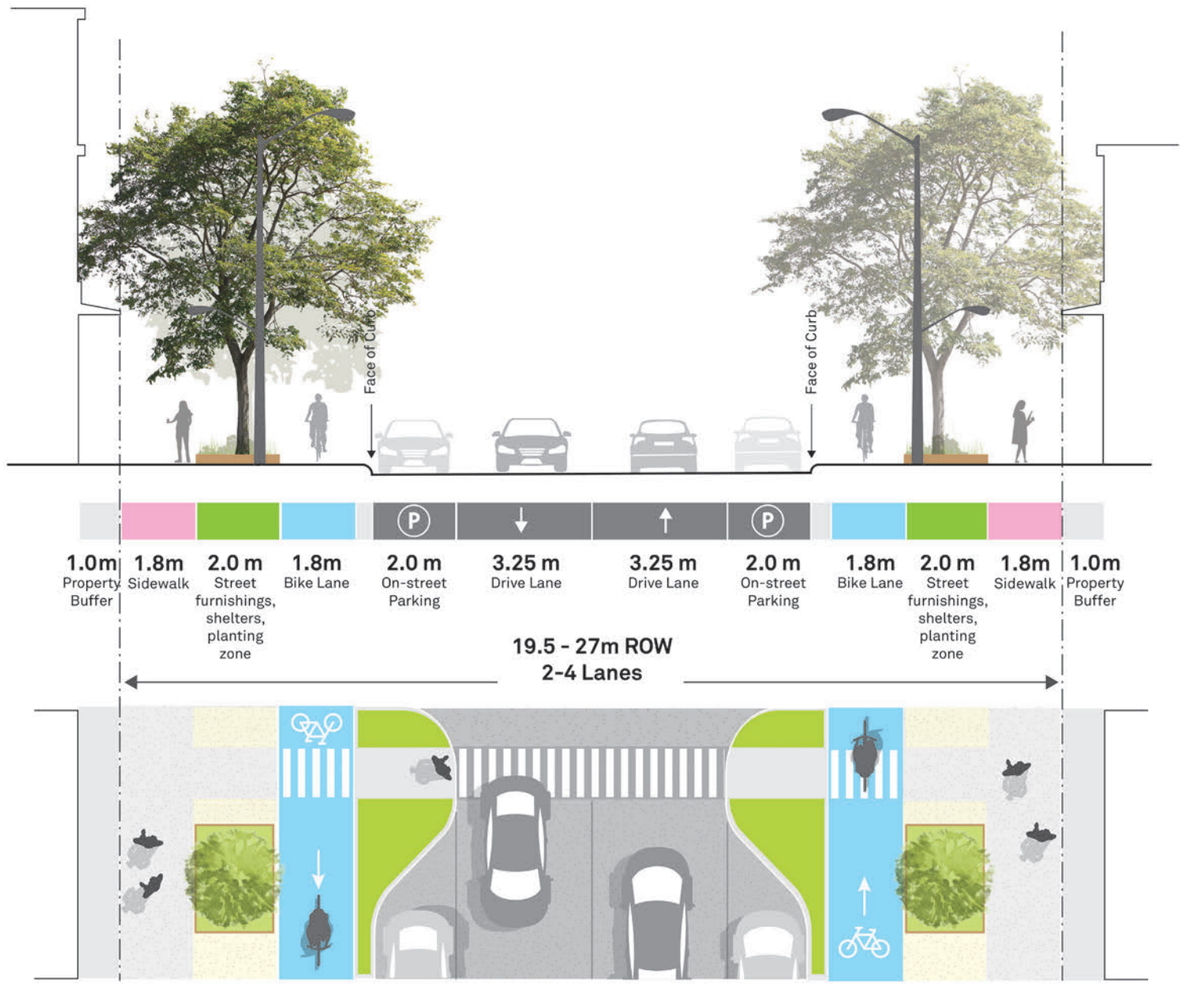


Figure 20: Sample section for a Municipal Collector Street in a Main street configuration with curb bump-outs that help shorten the crossing distance for pedestrians.

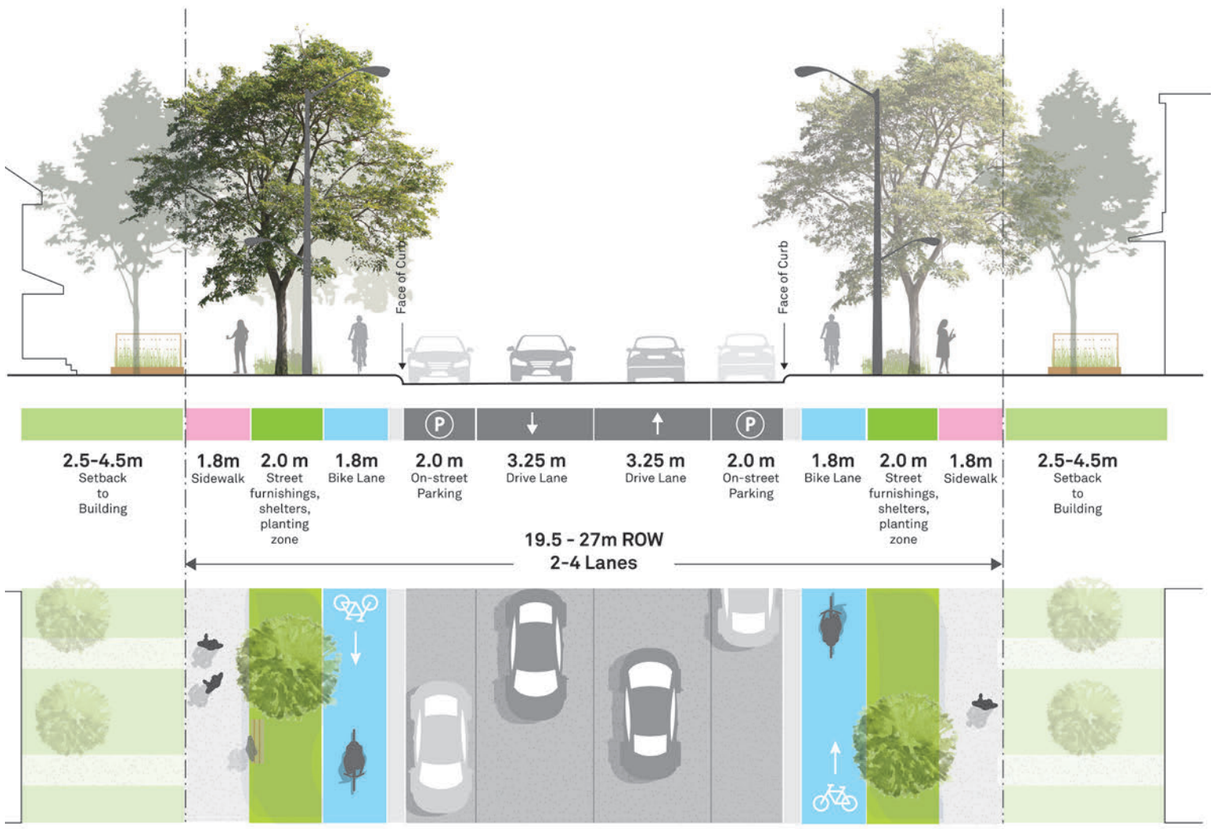


Figure 21: Sample section for a Municipal Collector Street in a residential configuration.

Local Street Guidelines:

ah. Local Streets should be designed to create 'intimate' pedestrian-scaled streetscapes that promote walkability and residential activities and discourage speeding and through traffic. The right-of-way standards should be reduced to minimum requirements wherever possible.

ai. Local Streets should be designed with a narrow or reduced right-of-way standard of no greater than 20.0 metres.

aj. A planting zone of 2.0 metres width should be located on both sides of the road, planted with lawn and street trees located every 6.0 to 9.0 metres on centre.

ak. A sidewalk with a pedestrian clearway of at least 1.5 metres wide should be provided on both sides of the street and situated between the boulevard and the property buffer strip. In areas where higher pedestrian volumes are anticipated, consider providing greater sidewalk widths.

al. A 1.0 metre wide 'property buffer' should be situated between the sidewalk and the private property boundary to provide options for locating underground services within the street right-of-way. This may be used as a marketing zone when abutting commercial or mixed use lots.

am. To encourage walkability and pedestrian safety through shorter crossing distances, Local Street to Local Street curb radii should be between 5.0 and 6.0 metres.

an. Utilities should be buried below grade - typically in the boulevard section of the right-of-way. The use of a joint utility trench is encouraged for access and maintenance benefits. They should be located in a manner that supports adequate street tree soil volumes of at least 30 cubic metres.

Interface of Local Street-Arterial Guidelines:

Where Local Streets and Arterial Roads meet, it is important to manage this transition through thoughtful street design.

ao. All housing adjacent to Arterial Roads should provide positive frontage to these streets by providing a front façade or corner treatment façade on a flanking lot visible from the street, high-quality landscape design comprising trees, shrubs, low walls or fences, and sidewalks.

ap. To promote active frontages and use CPTED principles, rear lotting should be avoided where Local Street and Arterial Roads meet.

aq. Low-density residential development adjacent to Arterial Roads should not have driveway access. Low-density housing adjacent to major collector roads should generally discourage driveway access except where the road design incorporates a central landscaped median accommodating right-in, right-out only driveway access.

ar. Positive frontage on Arterial Roads could be achieved in the following ways: rear lane access, rear access from local roads, single-loaded service roads.

as. A variety of treatments should be utilized along a given road corridor to avoid an overly repetitive pattern. In particular, the large setbacks provided by service roads should be mitigated where possible by avoiding the mirroring of the same treatment on either side of the Arterial Road.

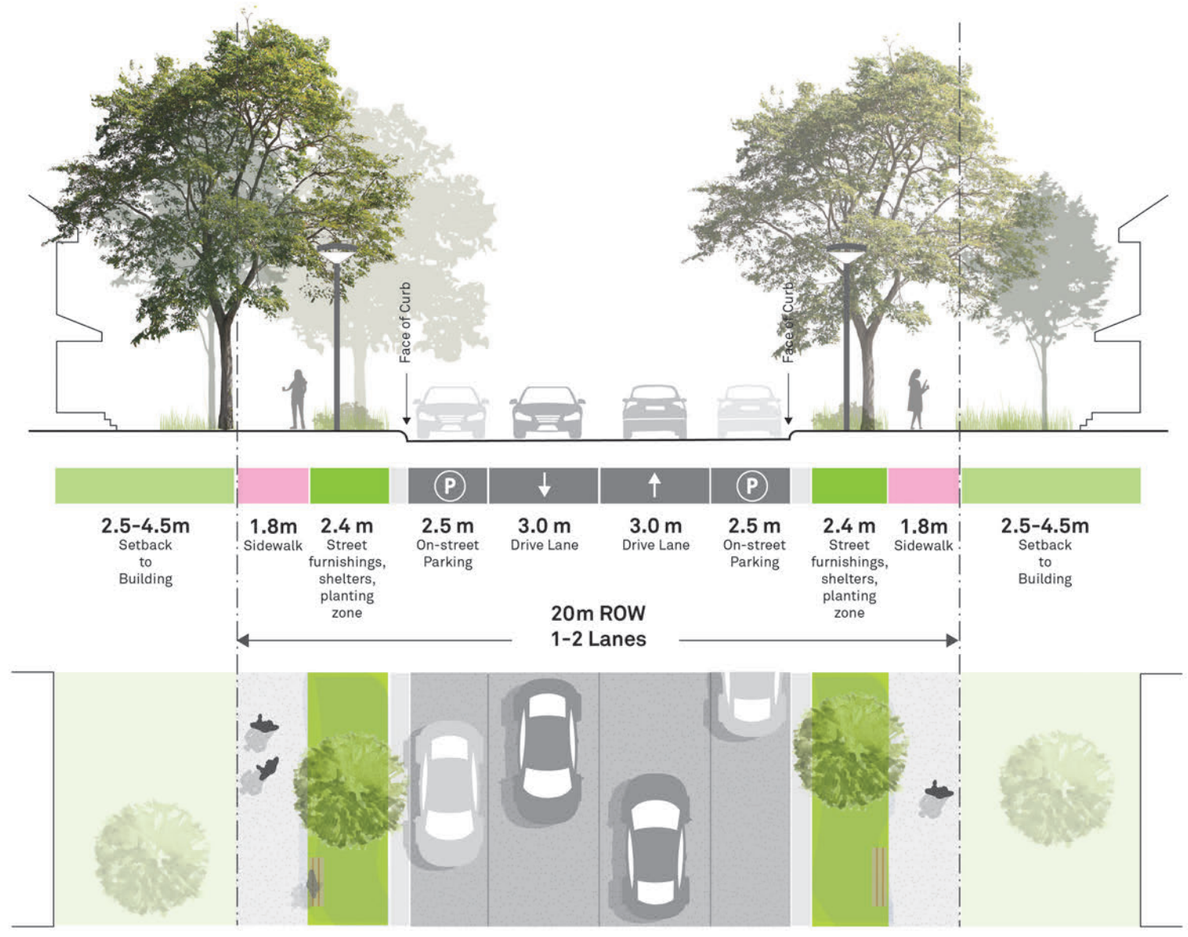


Figure 22: Sample section for a Municipal Local Street.

Intersection Design Curb Radius Guidelines:

The design of curb radii impacts the safety and experience of pedestrians, cyclists and motorists.

at. The choice of curb radius should consider requirements for pedestrian areas, traffic turning movements, the turning radius of vehicles, the geometry of the intersection, the street classifications, and whether there is parking or a cycling facility (or both) between the travel lane and the curb.

au. Street corners should be designed to serve multiple functions, including pedestrian crossings, transit stops, pedestrian plazas, utility and traffic signal poles, etc. Curb radius design should consider these competing needs and priorities.

av. Small curb radii improve the quality of the streetscape for pedestrians as these provide more area at intersections for pedestrian-friendly features and amenities, result in shorter crosswalks, and require vehicles to reduce speed as they turn the corner.

aw. A smaller curb radius may be used for the design of a curb “bump-out” - to provide a projection or “bump-out” of sidewalk pavement into the roadway. This ‘bump-out may include landscape elements, feature paving, seating, etc. at the intersection of two streets, separating on-street parking from the intersection and decreasing pedestrian crossing distance.

Sidewalk Design Guidelines:

Sidewalks form a fundamental part of public life, creating important community places where people meet friends and neighbours, walk to local shops, and where children play and walk to school.

ax. Sidewalks should accommodate a wide range of potential uses, including the safe movement of pedestrians throughout residential, commercial, and employment areas.

ay. Sidewalks should be provided on both sides of the street and width dimensions should be consistent block-to-block and designed to meet or exceed minimum requirements.

az. Sidewalks should be constructed of a solid, stable, and textured material such as concrete.

ba. Sidewalks should be coordinated with the design of feature paving across boulevards, intersections, crosswalks and driveways to ensure visibility and accessibility of the pedestrian network.

bb. Where pedestrian activity is concentrated, such as schools and retail shops, the sidewalk should be expanded to provide space for gathering spaces, sidewalk cafes, and patios.

bc. Sidewalks should connect with adjoining recreational trail networks wherever possible.

bd. For sidewalks on busy streets, textured edges and sound assisted crosswalks should be used to assist the visually impaired.

be. The Niagara Region Complete Streets Design Manual contains an updated suite of products that should be considered for the design of sidewalks and street furniture.

Commercial Area Sidewalks:

Commercial area sidewalks support a thriving retail environment and encourage pedestrians to linger and enjoy public and private space.

bf. Commercial area sidewalks should have a minimum width of 3.5 metres, and be comprised of a minimum 2.1 metre wide clearway and 2.0m wide planting and furnishing zone that contains street tree and companion plantings and hard paved surface.

bg. Generally, the clearway surface should be constructed of poured concrete with a broom finish. Higher quality treatments, such as granite edges, should be considered in key areas such as downtowns or historic districts.

bh. Where sidewalks meet the vehicular road surface at cross-walks, sidewalk ramps should be gentle and graded to drain water to nearby catch basins.

bi. Sidewalk clutter, such as newspaper boxes and ‘sandwich board’ advertising, should be minimized or placed along the building edges to enable safe and efficient movement of pedestrians and ease of winter maintenance.

bj. Feature paving bands should be used as a placemaking tactic to define the sidewalk, and should continue across driveways and signalized intersections to indicate pedestrian priority.

bk. At corners, consideration should be given to the widening of boulevards to provide enhanced sidewalk conditions that include decorative planting areas, seating areas and other amenities such as public art.

bl. Curb ramps are required to ensure accessibility and providing a proper transition between the road surface and top of curb at pedestrian sidewalk corners.

Figure 23: Commercial sidewalk widths should be generous and include areas to rest and linger (Oakville Streetscape Lakeshore Rd, Brook McIlroy, Photographer: Tom Ridout)

Residential Area Sidewalks:

Sidewalks in residential areas should support the safe and enjoyable travel of pedestrians.

bm. Sidewalk clearways should be a minimum of 1.8 metres wide and be located on both sides of all arterial roads, collector streets and local streets, and should be on at least one side of single-loaded roads.

bn. The design of sidewalks should be coordinated with intersecting driveways and pedestrian walkways to avoid sidewalk undulation which negatively impacts walkability and accessibility.

bo. Sidewalks situated on steep slopes should be scoured to create a 'non slip' surface for pedestrian safety.

Interface of Sidewalk-Surface Parking Guidelines:

The intersection of surface parking and sidewalks are important in promoting pedestrian safety and wellbeing.

bp. Where surface parking areas are situated against the sidewalk (e.g. existing retail forecourt parking, or car sales yard), a visual barrier, such as landscaping buffers of shrubs and ornamental grasses and/or low landscape walls should be located between parked vehicles and the sidewalk.

bq. Visual buffers should be 1.0 metres in height and located on private property and therefore not reduce the total sidewalk width.

Figure 24: Residential sidewalks should be balanced by green boulevards and afford views to and from properties.

Crosswalk Guidelines:

br. On Local and Collector Residential Streets, continuous sidewalk conditions are recommended to promote cyclist and pedestrian safety and traffic calming.

bs. Crosswalks should be as short as possible, continuous and connected to adjacent sidewalks. Crosswalks should be clearly designated for safety, with appropriate surface markings or variation in construction material, and signage.

bt. Gateway and major commercial area intersections should use feature crosswalk paving to signify the priority of pedestrian crossings at these locations.

bu. The curb edge at crosswalks should be constructed of a different material to allow the visually impaired to detect the edge of the sidewalk and beginning of the crosswalk.

bv. Additional mid-block crosswalks with 'on-demand' signals should be provided on long blocks.

bw. Signalization should be prioritized for the pedestrian over traffic, especially within commercial or 'node' areas with high levels of pedestrian activity.

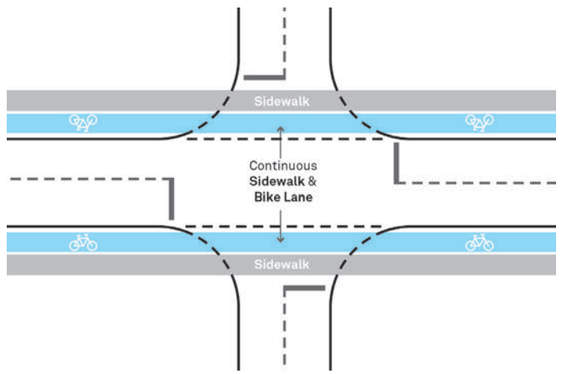


Figure 26: Continuous sidewalk and bicycle lanes promote safety and traffic calming.

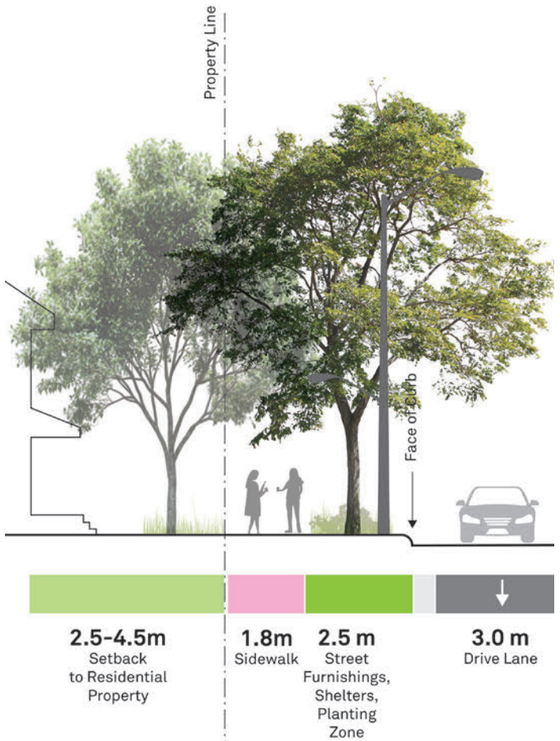


Figure 25: Double rows of street trees create substantial canopy cover and enhance the level of privacy for residential and promote traffic calming.

Street Tree Guidelines:

Established street trees enhance the pedestrian experience of the public realm, promote traffic calming, and reduce urban heat island effect.

bx. Trees provide shade and comfort to pedestrians, and enhance the visual and environmental qualities of the street. Trees should be incorporated into street design wherever possible. Native species for street trees should be used wherever possible, to promote diversity, long-term survival, and to prevent disease.

by. Street trees should generally be located within the boulevard and should be offset a minimum of 1.5 metres from the curb to accommodate snow storage, large vehicle movements and minimize salt damage.

bz. Trees should be spaced consistently at 6.0 to 9.0 metre intervals. Appropriate clearances from utility boxes, streetlights, and sight triangles should be considered.

ca. Street trees should be located within the boulevard and planted in an adequate pit under a metal grille to allow for water infiltration. The pit should provide a minimum of 30 cubic metres of soil volume to promote healthy trees.

cb. Existing street trees should be preserved wherever possible, as mature street trees create a greater sense of enclosure along roads.

cc. Consideration should be given to the type and location of trees to ensure that higher branching trees are positioned to ensure there is no interference with truck traffic and overhead utilities. Sight lines should also be considered in the location of trees planted at intersections.

cd. Consideration should be provided to the potential height of trees selected for planting under overhead utilities.

ce. The planting of trees as infill along existing streets where the rhythm of existing trees is interrupted should be implemented and such trees should be of a similar or compatible species.

cf. Encourage street tree diversity and avoid mono cultures as there could be increased risk associated with diseases, pests, and infestation.

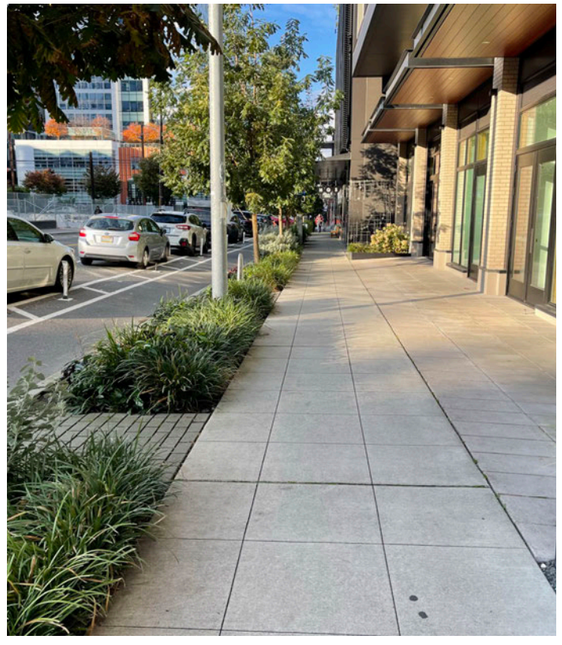


Figure 27: Low-scale plantings can complement street trees, help absorb rainwater, provide a detectable edge to sidewalks for the visually impaired, and enhance pedestrian experiences in the public realm.

Transit Infrastructure Guidelines:

cg. Sidewalks should connect directly to transit shelters to encourage active transit use and ensure safety and convenience.

ch. Bus stops should be located on the far side of intersections to improve road efficiency and commuter safety.

ci. Transit stops should be located near building entrances.

cj. Transit stops should include basic amenities, including seating, trash receptacles, lighting, and route information.

ck. Transit shelters located on the sidewalk or boulevard should be located between 1.0 and 3.0 metres from the street curb.

cl. Transit stops and shelters should be easily visible and accessible.

Reference Documents:

- Ontario Traffic Manual Book 18
- Niagara Region Complete Streets Design Manual
- Niagara Region Transportation Master Plan
- Niagara Region Official Plan Section 5.1

Figure 28: Transit shelters promote the use of public transportation and create greater comfort for transit users.

3.3 Interface with Natural Heritage and Agricultural Lands

Niagara Region's natural heritage and agricultural lands are fundamental to the character of the area, supporting its economic outlook and quality of life for residents. Natural features such as the Niagara Escarpment and Lake Ontario as well as the many wetlands, woodlands, and streams, help to complement Niagara's uniqueness and reinforces the special connection to the landscape a part of Niagara's sense of place. Protecting and restoring these areas maintain their ecological significance and will ensure their continued use and enjoyment. Development adjacent to agricultural lands should consider the sensitivity of adjacent agricultural uses and protect for their long-term viability. It should provide innovative designs that integrate, enhance and celebrate natural features and landscapes wherever possible to create desirable places to live and work.

Guidelines should preserve and enhance natural heritage areas in order to protect important ecological functions, ecosystems, and cultural landscapes.

Best Practices:

- **Make Nature Visible:** The alignment of streets and blocks should be configured to enhance visibility and access to natural elements and their ecosystems, drawing nature into new developments. Direct visibility and access to woodlots, stream corridors, and other natural features should provide opportunities for outdoor education. Conversely, access should be restricted where necessary.

- **Preserved & Enhanced:** Natural heritage should be preserved to protect natural vegetation, ecological functions and the cultural landscape. Adjoining development should be compatible with the natural environment and appropriately set back or buffered.

- **Integrated:** Development should reinforce historic connections to the landscape by providing physical and visual connections to natural features, parks and the surrounding landscapes. Natural heritage features can define the edges or centres of neighbourhoods and should be easily visible to create a strong sense of local identity.

Figure 29: Niagara's natural heritage and agricultural lands, including tender fruit lands, are a defining feature of the landscape. Development adjacent to agricultural lands should consider the sensitivity of adjacent agricultural uses and protect for their long-term viability.

Design Guidelines:

a. The location and orientation of buildings, roads, circulation networks, and other site design elements should ensure minimal impact to natural heritage areas and agricultural lands and should optimize the placemaking role of natural heritage features.

b. New buildings should be designed to appropriately transition to natural heritage areas and agricultural lands. The transition should consider building massing, scale, separation distances, setbacks, and stepbacks.

c. Direct pedestrian and cyclist connections to trail networks within natural heritage areas should be provided from adjacent development. Connections to natural heritage areas should enhance the natural heritage features and ensure these are not adversely impacted.

d. Landscaping on sites adjacent to natural areas should consist of native trees and shrubs, and should be salt and drought tolerant if buffered by roadways.

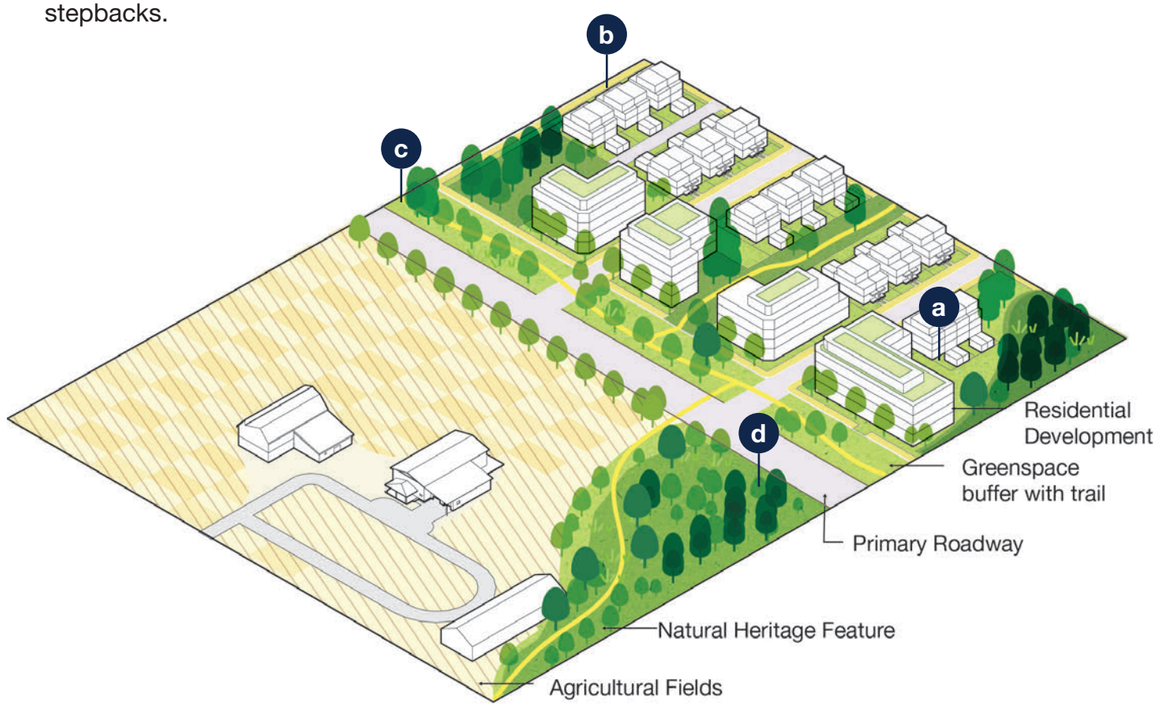


Figure 30: Natural landscapes and existing trees should be incorporated into new developments where possible, and buffer areas should be created around natural heritage areas and agricultural lands for appropriate transition.

e. Considerations for impacts of noise, odour, light pollution, etc. necessary for certain uses associated with rural areas should inform design decisions on the scale and form of development and proposed land uses on adjacent sites.

f. Hardscaping adjacent to natural heritage areas and agricultural lands should consist of porous and low albedo materials wherever possible to allow for stormwater infiltration and absorb the sun's heat.

g. Grading and hydrological changes should be minimized where there are significant landscape features. Plantings are to be retained to minimize disruptions to the ecological system and to support their ongoing health.

h. Ensure that appropriate vegetation protection zones are included between sensitive natural heritage features and buildings or other site elements, in accordance with best practices and municipal policies and those of the conservation authority.

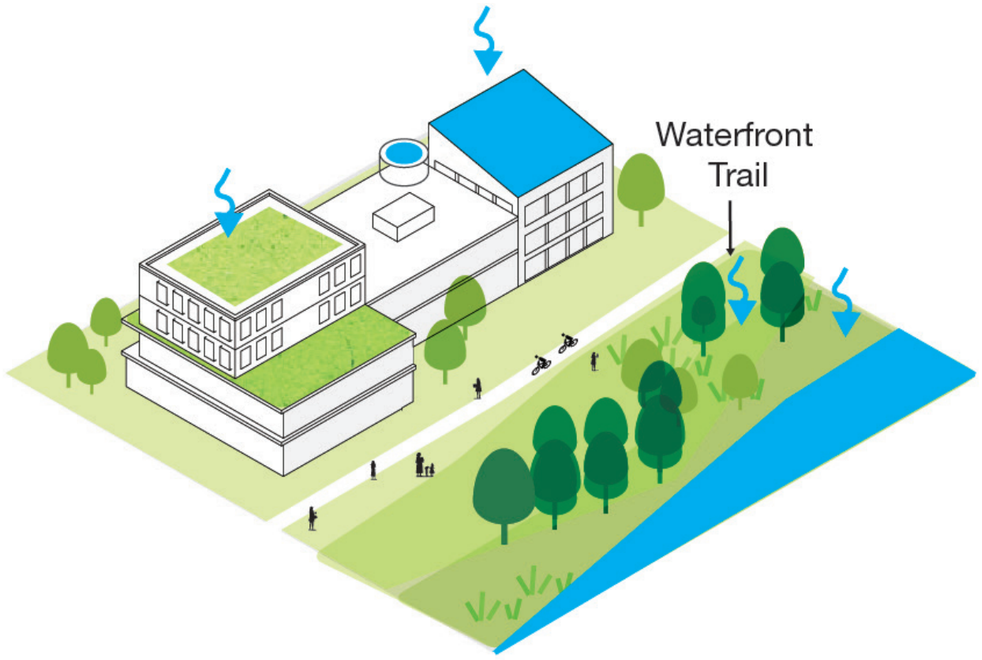


Figure 31: Improvement of the net ecological benefit of sites adjacent to natural heritage areas is encouraged. This includes improvements to sites through tree planting and low impact development techniques including green roofs, rain gardens, bioswales, and rainwater harvesting systems.

i. Where single-loaded roads are not feasible to adjacent natural heritage areas, a continuous and publicly accessible landscape buffer with a pathway should be created between private yards and adjacent natural heritage areas. The landscape buffer should be uninterrupted and have a minimum width of 5 metres with a 2.1 metre wide publicly accessible sidewalk or trail condition.

j. All developments within or adjacent to natural heritage areas including the Niagara Escarpment should comply with setbacks, buffers, and other standards as required by regulating agencies.

k. New development should front and provide views to natural heritage features where possible. Rear facing development (backlotting) adjacent to natural heritage areas is strongly discouraged because it can create a barrier for wildlife and can minimize or eliminate views of natural features.

l. New development adjacent to natural areas should not negatively impact existing wildlife movement corridors.

m. Existing environmental features should be incorporated into the design of neighbourhoods - either within parklands, 'heritage greenways' and road right-of-ways, within the site of large institutional uses, or as common areas linked to large open spaces.

n. Sensitive environmental features should be adequately buffered to ensure that ecological systems such as habitat corridors are enhanced and protected and not negatively affected by urban development.

Figure 32: Heritage Greenways can connect new development areas to parks and open spaces, creating green corridors for travel, lingering, and informal meeting.

Heritage Greenways Guidelines:

o. The natural and cultural heritage image of the Niagara Region can be enhanced in new development areas through a planting approach that promotes a system of linear tree-lined paths called Heritage Greenways.

p. New neighbourhoods should incorporate a network of off-road Heritage Greenways and linear recreation trails planted with trees to connect with the open space system and between neighbourhoods. Heritage Greenways should be encouraged to be a minimum of 12 metres wide to allow for a two-way 3.0m path centred between trees.

q. Heritage Greenways should form the framework of a connected open space network, linking neighbourhood parks and open spaces.

r. As new residential areas are built further away from Central Areas, the ability to walk to destinations, such as schools, shops and community facilities, becomes less practical. Heritage Greenways should be strongly considered as a physical link to promote pedestrian and bicycle access to Central Areas from new neighbourhoods.

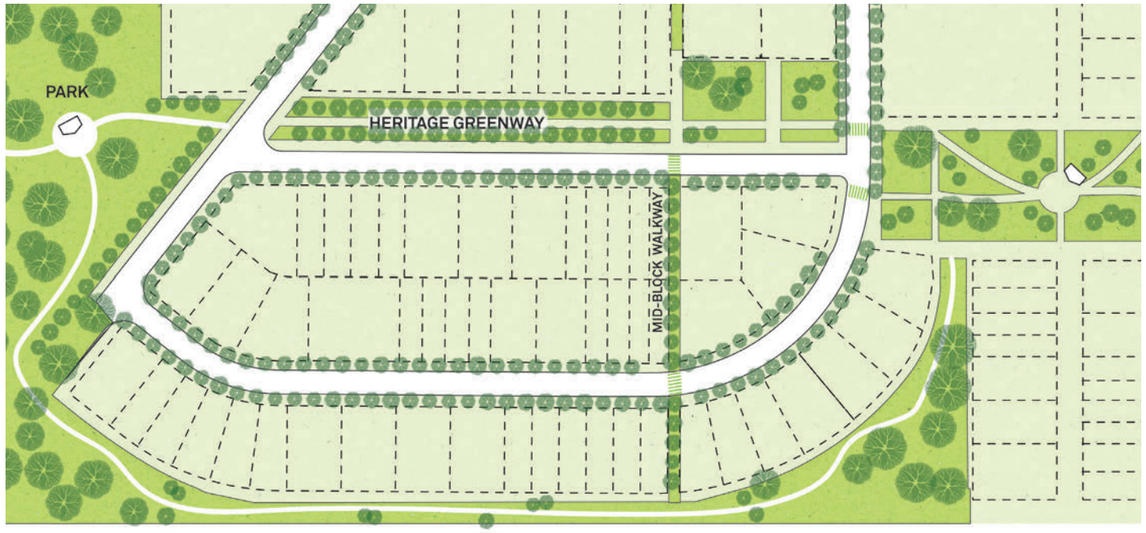


Figure 33: A Heritage Greenway can provide vital public open space connections through residential neighbourhoods, and support the health and well-being of people and achieve environmental sustainability objectives.

Agricultural & Rural Land Guidelines:

s. The perimeter of agricultural lands may be faced with a single-loaded street with landscape buffers provided to maintain views and connection with these lands from the public realm.

t. Where residential development backs onto agricultural or rural lands, a well-connected and maintained multi-use trail should be provided to maintain views and connection with these lands from the public realm.

u. Where feasible, agricultural lands may be buffered by open spaces with multi-use paths, and recreation areas.

v. In some instances, it is appropriate for residential development to back onto agricultural and rural lands, to limit access and reduce public exposure to sensitive crops and/or farming equipment and machinery.

Neighbourhood Edge Interface Guidelines:

w. Wherever possible, the perimeter of parks and other public opens spaces and natural areas should be faced with single-loaded streets. A good practice is to have a minimum of 50% of the total open space/ natural feature perimeter should be bounded by the public right-of-way, including either a public road and/or a public walkway or trail.

x. Pedestrian walkways from the public right-of-way to adjacent parks, public open spaces and natural features should be provided where possible. Walkways should have a minimum width of 3.0 metres.

Figure 34: Agricultural lands should be buffered by a single-loaded street, multi-use trail, or public open space.

3.4 Views and Vistas

Building with Niagara's natural and cultural heritage creates an authentic sense of place. It is important to create and maintain views to significant cultural landmarks, historical sites, and natural landscapes including the Niagara Escarpment, Lake Ontario, Lake Erie, and the region's canals and rivers. Scenic views can be significant drivers of tourism and economic activity in an area helping people navigate the streets of towns and cities. Significant views and vistas may be identified for protection within Official Plans and Secondary Plans.

Open space features, landmarks, and skylines are familiar elements of well-design places that can enhance the overall physical character and quality of life of areas within Niagara. Maintaining existing views and vistas within Niagara is an important consideration that should inform municipal policy and guidelines that impact the design of new buildings and sites.

Best Practices:

- **Sensing Place:** Views and vistas to cultural and natural heritage features enhance a sense of place and contribute to community character and identity.

Design Guidelines:

a. Policies and guidelines should guide the maintenance, enhancement or creation of views and vistas from public places to these significant community features:

   - Major civic and institutional buildings
   - Built landmarks, such as heritage resources, signature buildings, public art installations, etc.
   - Lake Ontario, Lake Erie, waterfronts, rivers, or canals
   - Niagara Escarpment, natural features and open spaces

Figure 35: Conserving the views of Niagara Falls along the Parkway is a strong example for how it is essential to maintain its iconic natural beauty, which attracts millions of tourists each year, supports local economies and serves as a symbol of environmental stewardship.

b. The creation of views through the design and siting of buildings, streets, pedestrian connections, and open spaces is encouraged to promote public exposure to natural and cultural heritage resources. The design of buildings, sites, and open spaces should maintain existing vistas or provide new vistas to natural and cultural heritage resources from various significant vantage points.

c. Important public views of the Niagara Escarpment should be carefully considered by new development. Building massing, setbacks and separation distances, site landscaping, and other screening should be considered to minimize the visual impact of development on the escarpment landscape. View shed studies are to be completed at the request of local municipalities.

d. Development along Lake Ontario and Lake Erie should be sited to protect and create views to the lake. Public access to the lake shore is a best practice and should be achieved by a mix of mid-block connections, multi-use trails, interconnected open spaces and parks, and public roadways.

e. The siting of principal facades of public buildings and parks at the end of a street is encouraged to create a visual terminus. These areas should be designed with high quality architectural treatments and landscaping elements to reinforce their design significance.

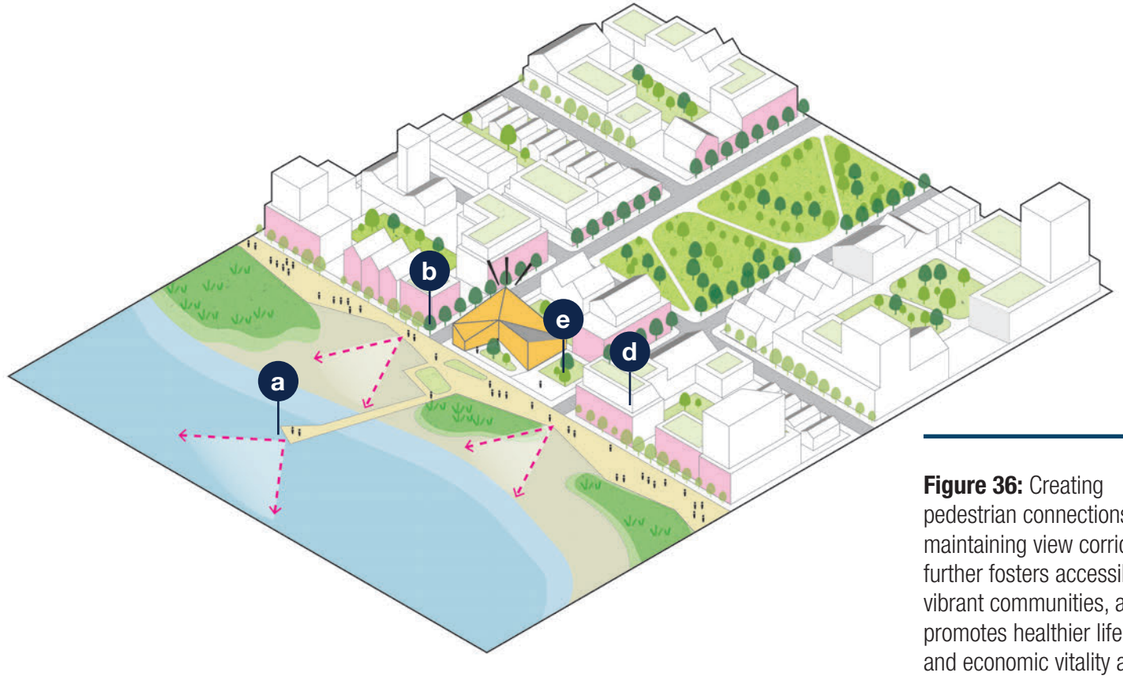


Figure 36: Creating pedestrian connections and maintaining view corridors further fosters accessibility, vibrant communities, and promotes healthier lifestyles and economic vitality along waterfronts.

Landmark View Guidelines:

f. Retention of key landmarks and views should be a priority when designing sites and locating buildings. Views and landmarks should be enhanced with public access, building design and complementary landscape.

g. Retain or create views of important landmarks from public streets and spaces as well as new development.

h. Views to adjacent natural features, public art, parks and open spaces or other amenities should be enhanced with public access, appropriate setbacks, and landscape design.

i. Where buildings frame view corridors, the frontages of buildings facing the corridor should be programmed with uses that frame and activate the public realm.

j. Sites that terminate at key view corridors should be designed to incorporate signature art as well as high quality architectural treatments or building elements.

k. Consider topography and elevation to identify locations for new view termini or locations from which views can be created.

l. Changes in grade should be used to maximize views to and from buildings. Landmarks should be well integrated with prominent landscape features and existing topography.

Figure 37: Fort George, a National Historic Site of Canada is a notable cultural and historic landmark.

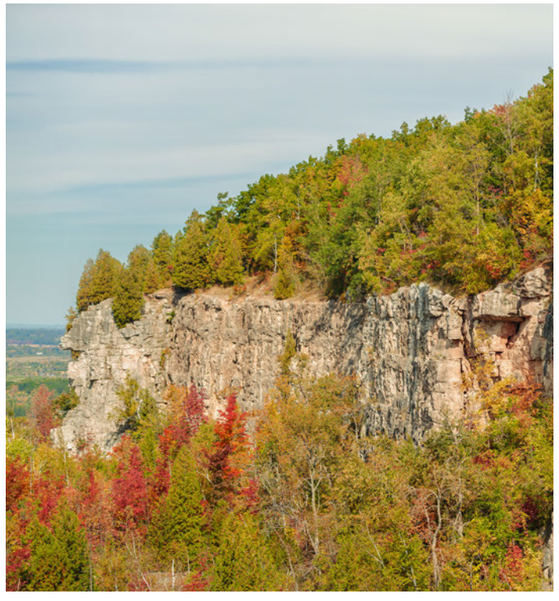


Figure 38: The Niagara Escarpment is a key natural landmark in the region.

3.5 Waterfronts and Waterways

The Region of Niagara is renowned for its picturesque natural setting and favourable climate. The shores of Lake Ontario, Lake Erie as well as the Welland Canal, Niagara Falls, and the Niagara River offer unique visual experiences, ecological diversity and historic charm. Scenic shorelines, extensive green spaces, and landmark sites all contribute to the exceptional beauty, placemaking, recreational opportunities and cultural significance and quality of life in Niagara. Special attention should be placed on the curation, composition and management of waterfront lands, shorelines, and waterways to balance competing demands of ecological functions and intensity of human activities.

Figure 39: The Neil Henley Rowing Centre showcases exemplary sustainable design that can support a broad spectrum of uses, enhances the local context and achievements in both net-zero energy and zero-carbon emission benchmarks.

Best Practices:

- **Inclusive, Accessible, and Programmed:** Design waterfronts to serve the diverse needs of the community, including a range of programmed active and passive recreational activities and vibrant and inclusive gathering spaces to attract people of all ages and interests.

- **Preservation and Enhancement of Natural Features:** Natural features, such as watercourses, wetlands, riparian buffers and native vegetation should be conserved and integrated into waterfront parks and open spaces to maintain connection with the original landscape. Natural elements and features contribute to biodiversity and create opportunities for recreation and relaxation.

- **Ecological Health and Resilience:** To ensure the long-term success of waterfront and public space projects, regular maintenance and adaptive management should support access, ecological health and resilience.

Design Guidelines:

a. Publicly accessible waterfronts should be sustainable and encourage active transportation options to promote physical activity, health and well-being.

b. Adequate setbacks and buffers should be provided adjacent to waterfronts, streams, and wetlands, to prevent flooding, erosion, and enhance water quality. Overbank planting should provide stream shading to meet the requirements of the Niagara Peninsula Conservation Authority (NPCA) and to protect wildlife habitats.

c. Create or enhance high quality public access areas on the waterfront that increases interaction with water and are shaped by community priorities to promote equitable, engaging and healthy waterfronts.

d. Waterfront community design should focus on improving public access to the waterfronts designed as a year-round destination, offering public realm enhancements, incorporating green spaces and placemaking elements, and prioritizing stronger connections between public spaces along the waterfront and to adjacent lands and downtown areas.

Figure 40: Waterfront design should prioritize public accessibility, integrating green connections and enhancing biodiversity.

e. Cluster and integrate waterfront and recreational amenities together to create public waterfront spaces. Orient amenities to anchor public spaces and to animate and engage with the waterfront to simplify servicing and access requirements.

f. Waterfront developments and properties are inherently exposed to the effects of climate change and are important ecological and social transition areas from land to water. Site assessments should be made to inform design strategies related to shoreline stabilization, adaptation and mitigation to flood risk, ecological protection and restoration.

g. Prioritize the vitality and preservation of living shorelines through environmental best practices (e.g. riparian buffer strips, continuous shoreline vegetation, bio-engineering approaches to shoreline stabilization).

h. Enhance riparian habitats by providing structure, shading, and a diversity of shoreline conditions. Ensure there is connectivity with adjacent terrestrial habitats. For vegetated shorelines, consider native plant species, sun exposure, soil type, and water quality when evaluating alternatives.

i. Shoreline areas of watercourses and Lakes Erie and Ontario should be maintained as much as possible as a naturally vegetated shoreline. Naturally vegetated shorelines are important in buffering water bodies from erosion, water quality, siltation and nutrient migration.

j. Design flood-friendly and resilient waterfront parklands, public spaces, and infrastructure within or adjacent to the flood plain. Critical infrastructure, such as power and transportation networks, should be kept above the 1 in 100-year event standard which is the anticipated limit of flooding that has a 1% chance of occurring in any given year.

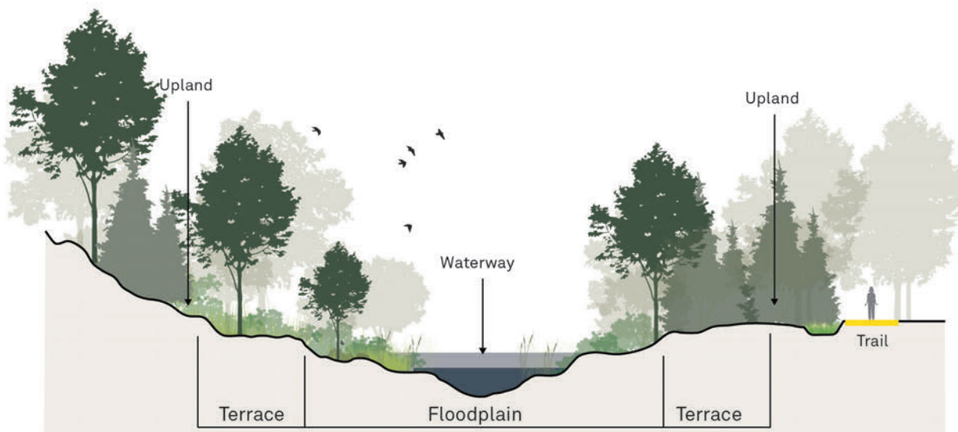


Figure 41: Healthy waterways and streams should contain a riparian corridor. Riparian zones border waterways, filter stormwater run-off, and create wildlife corridors that connect different habitats.

k. Employ nature-based or integrated flood protection strategies when flood risk is present. Flood risk reduction strategies will vary depending on the context, intended project types and whether flooding is caused by storm surges, shoreline erosion, pluvial or fluvial flooding.

l. Protect and restore the ecological health of the Great Lakes, consistent with the provisions of the Great Lakes Strategy, the targets and goals of the Great Lakes Protection Act, 2015, and any applicable Great Lakes agreements as part of watershed planning and coastal or waterfront planning initiatives.

m. Ensure that waterfront vegetation and habitats are restored in the event of a flood. Prevent future habitat loss and fragmentation by careful management and monitoring.

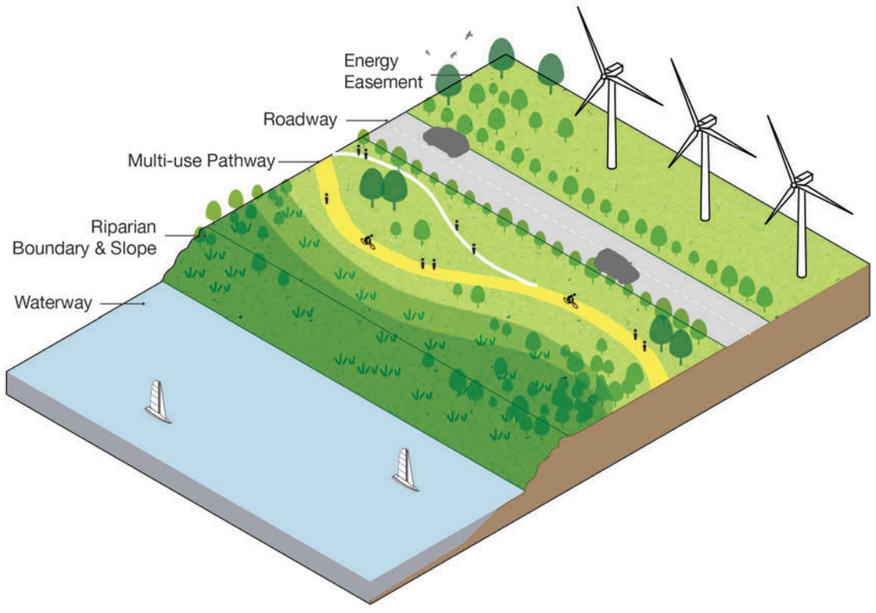


Figure 42: New buildings and critical infrastructure should be planned and built in elevated and flood protected areas. Dedicated natural areas with recreational amenities located alongside waterways can enhance biodiversity and reduce flood hazards.

3.6 Parks and Open Spaces

Park systems include a variety of different outdoor space uses and networks, including: public parks and open spaces, courtyards, landscaped mid-block connections and publicly accessible private outdoor amenity spaces. Public parks are publicly owned and operated spaces that offer the public a place for passive and active recreational use and enjoyment, whereas POPS, courtyards, amenity spaces and gardens, are privately owned and public accessibility can vary. Private and public parks and open spaces are important areas for residents and visitors to engage with the outdoors, exercise, socialize, and build a healthy social fabric.

As Niagara continues to grow, there will be an increasing need for parks and open spaces, which can be achieved through revitalizing existing parks and creating new ones. Within the development process, opportunities for negotiation between developers and municipalities should secure meaningful parkland to ensure community members have year-round access to the outdoors. Additional consideration should be given to lower income neighbourhoods and areas with less access to green space.

Best Practices:

- **Connected and Integrated:** Parks, open spaces, and public spaces should form part of an accessible linked network, providing a major structure in shaping existing and new communities, and providing a variety of access, recreation, and movement options.
- **Safe and Secure:** The design of public open spaces should be safe and secure and designed with CPTED principles. Open spaces should be framed or flanked by public roads wherever possible to improve the presence and safety of these amenities through casual surveillance and crime prevention measures.
- **Multi-functional and Adaptable:** The design of parks and open spaces should accommodate a range of activities and user groups. It is important to involve local residents in the planning, design, and programming of parks and open spaces to ensure they meet changing needs and preferences of the community while promoting environmental stewardship.

Figure 43: The Landscape of Nations in Niagara-on-the Lake is dedicated to the Haudenosaunee (Six Nations) Confederacy and Indigenous allies that participated in the War of 1812.

- **Ecological Health and Resilience:** Parks and open spaces should preserve and enhance natural features such as trees, wetlands, and native vegetation. These crucial elements provide habitats for wildlife, improve water quality, and contribute to the overall health and well-being of ecosystems.

Design Guidelines:

a. Plan for an equitable distribution of parks and open spaces across neighbourhoods to ensure that all residents have access to quality green space regardless of their socio-economic status or demographic characteristics.

b. Proposed buildings should provide an appropriate interface and clear transition between private and public spaces. Contextually appropriate building and landscape transitions should occur between new development, parks, open spaces, and plazas.

c. Create inviting public spaces that utilize landscape design and planting that provide shade, wind protection, and comfortable microclimates.

d. Developments adjacent to parks and open spaces should maintain maximum sun exposure. Parks and open spaces should be in full sunlight a minimum of 50% of the time between 10:00am and 6:00pm.

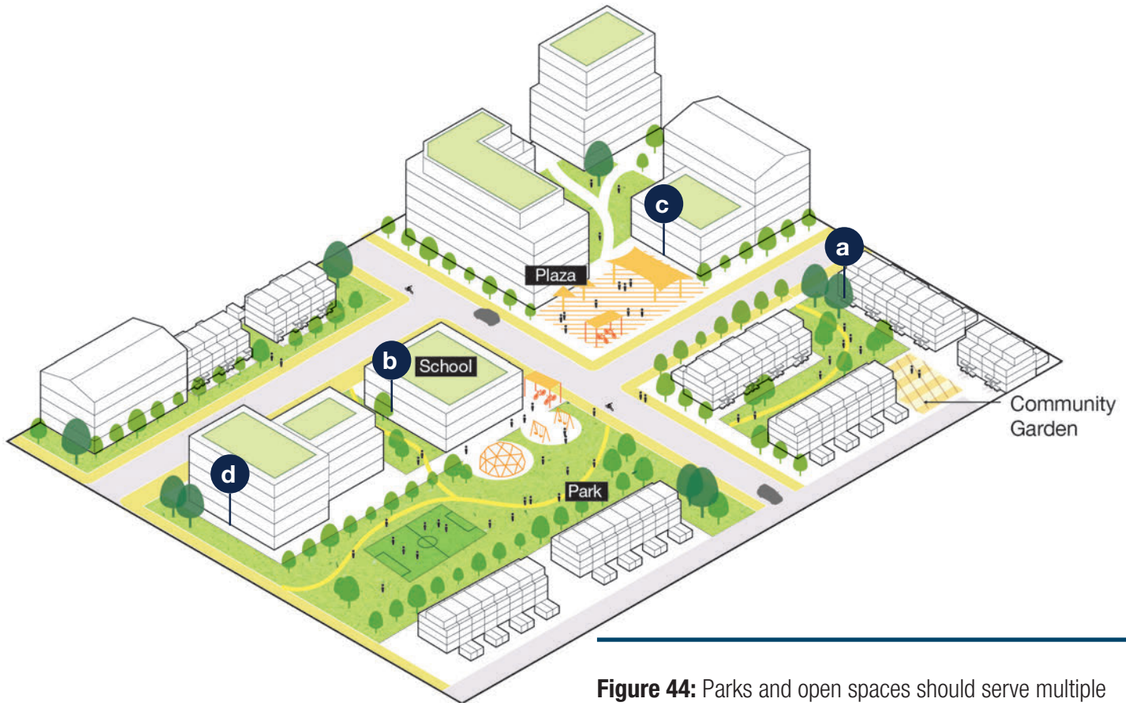


Figure 44: Parks and open spaces should serve multiple functions, be in a variety of sizes and cater to recreational, educational, cultural, and ecological needs.

e. Public outdoor amenity spaces, such as playgrounds, swimming pools, and sports fields, should have a minimum of 5 hours of sun April 21st to September 21st between 10:00am and 6:00pm, and a minimum of 3 hours of sunlight between 10:00am and 6:00pm on December 21st.

f. Conserve and enhance the ecological integrity and natural environment of the Niagara Escarpment Parks and Open Space System (NEPOSS), which contains over 160 parks and open spaces. Refer to the NEPOSS Council and Niagara Escarpment Planning policies.

g. Enhance the unique regional character of Niagara through landscape designs that conserve and emphasize the region's underlying landscape, topography, and local materials.

h. Park and open space design should encourage interconnection with adjacent natural areas and wildlife corridors. Setbacks and edge interfaces should be planted with a diverse selection of indigenous plant species and designed to provide habitat for local flora and fauna. See Section 4.4 on Public Realm Design and 5.5 Landscape Design.

i. Community gardens may be located within parks and public open spaces as a valuable recreational activity that can contribute to community development, environmental awareness, positive social interaction, and community education.

j. Community Parks should support the larger community identity, and provide a variety of spaces for passive park use, as well as include a variety of active/recreational sports facilities (e.g. baseball diamonds, soccer pitches, swimming pools etc.).

k. Community Parks should, where feasible, be located beside schools or with access to recreational trails where connections from the wider area and adjacent residences are possible. Smaller neighbourhood parks or parkettes should be located and designed to provide a focus within a five-minute walking distance of the surrounding neighbourhood

l. Community Parks may be directly connected to school sites to encourage mutual use of outdoor facilities. At such locations, the park size, design and programming should conform to individual school board requirements. Sharing agreements can include parking facilities.

Figure 45: Large parks and open spaces provide various opportunities for recreational activities, social interaction, and can be used for spontaneous interactions and organized events.

m. Community Parks should generally be 1 to 3 hectares in size. Community Parks should be located along major roads such as Arterials and Collectors, and where possible at the terminus of streets and open crescents to reinforce a strong public profile.

n. Highly visible connections should link the major park amenities and facilities through walkways, cycling facilities, and pedestrian connections.

o. Vehicular connections through parkland should be limited to emergency vehicle routes and access to major park facilities (e.g. arenas, pools) and parking areas.

p. Provisions to buffer residential areas from lighting, noise, traffic and parking areas should be provided through landscaping and appropriate setback treatments.

Urban Squares and Plazas:

q. Urban squares should be designed to respond to the local culture or history of the area and include unique paving, landscape, seating, lighting, shade trees or structures.

r. Urban squares should be designed as flexible spaces that can accommodate potential active uses such as festivals, farmer's markets, gathering spaces, events, retail spill out spaces, patios, etc. Consider opportunities to integrate seasonal and year-round events.

s. Design urban squares and plazas as extensions of indoor spaces that frame them which can be done through glazing, complementary ground floor uses or a cohesive material palette.

t. Urban squares should be connected to the public realm, constructed at grade and have access to public sidewalks at a minimum on one side.

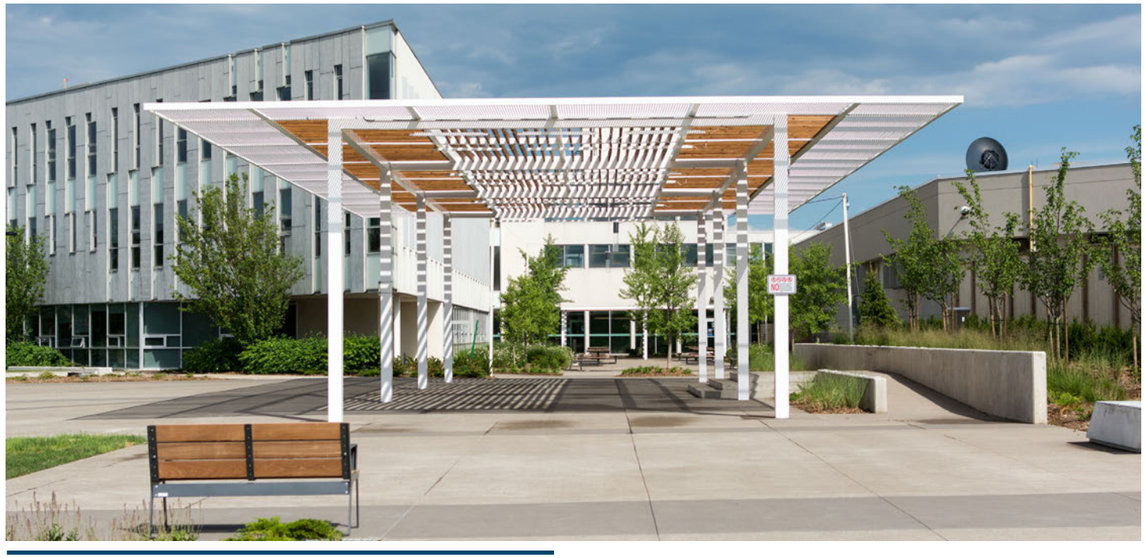


Figure 46: Pavilions can add to the visual appeal of an urban square and can serve as landmarks or focal points.

Multi-Use Trails:

u. New recreational trails should be designed in accordance with other existing and proposed recreational networks of Niagara as identified in the Regional Bikeways Master Plan and Regional Policy Plan.

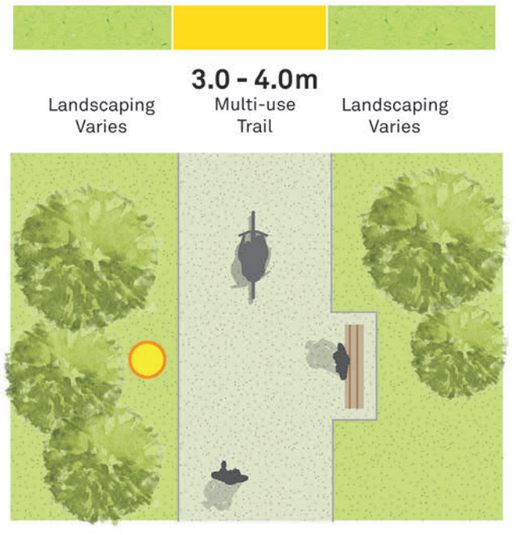


Figure 47: Typical section of a multi-use trail. Trails should be designed with appropriate signage, wayfinding markers, emergency access points, and clear trailheads.

v. The design of the recreational trail should reflect the function and nature of the type of open space it occupies. However, trail widths should range from 3.0-4.0m wide to allow for two-way cyclist or pedestrian passage.

w. Nature trails should include multiple access points. The design of access points should consider that people arrive by a variety of means, including by vehicle, foot or bicycle. Entrances should also be designed to accommodate people of all abilities and therefore include stable yet permeable surfaces such as crushed limestone.

x. Trails should include adequate amenities, such as seating, waste receptacles, lighting, signage, route information, and educational/ historic information.

y. Trails located within sensitive natural environments, such as the Niagara Escarpment, should be constructed of low impact materials that are porous and stable, such as crushed rock, wood chip paths, or board walks. All trails should be designed according to site-specific conditions. Where topography and environmental conditions allow, trails should provide a surface that enables use by pedestrians, bicycles, and wheelchairs.

z. Allowance in the design of trails for emergency vehicle access.

aa. Lighting levels on trails should be individually determined, particularly where lighting may disturb adjacent residences, natural habitats or have high maintenance costs. The use of solar-powered lighting should be considered.

ab. Nature trails should incorporate viewing stations, wayfinding, and other information to enhance nature appreciation and education.

ac. Trails that align hedgerows, woodlots or other sensitive natural areas should employ separation distances from such features. Separation distances should be determined with attention to site context.

ad. Bicycle facilities along streets should provide direct connections to other trails within the open space system.

ae. Trail entrances should be accessible and visible from the public street or other public areas. Adequate mapping and route information should be provided, along with public telephones at regular intervals.

af. Trails at the rear of properties should have adequate sight lines from neighbouring properties to increase opportunities for casual surveillance and safety.

ag. Trails adjacent to rail corridors should be set back a minimum distance of 10.0m. This may be reduced if a safety fence is provided for physical separation. However, it is recommended that setback distances and physical separation requirements are assessed on a case-by-case basis to ensure safety of trail users from potential hazards such as wind, debris, and collisions. The setback distance should reflect to the type, speed, and frequency of train operations, as well as the topographic conditions.

Figure 48: Multi-use trails should be wide enough to accommodate cyclists and pedestrians.
Figure 49: Creating successful nature trails involves careful planning, design, and management to provide enjoyable and safe experiences for visitors while protecting natural resources.

3.7 PMTSAs and Intensification Areas

Intensification Areas, including Protected Major Transit Station Areas (PMTSAs), and Strategic Growth Areas, provide an opportunity for Niagara to accommodate growth in a manner that supports regional investment in transportation infrastructure.

Niagara Region's Official Plan (2022) identifies Strategic Growth Areas at Downtown St. Catharines, Downtown Welland, South Niagara Falls Hospital, and the Brock and Glendale Niagara District Plans. Additionally, it identifies PMTSAs at St. Catharines, Lincoln, Niagara Falls, and Grimsby. These and other areas with existing or planned public service facilities, frequent transit service, and local growth centres and corridors are anticipated to accommodate a minimum of 60% of all residential units within built-up areas (ROP Policy 2.2.2.5).

Best Practices:

- **Connecting Networks:** Accessible and active transportation networks should connect Intensification Areas and recreational features at a community and regional level.
- **Vibrant & Mixed Communities:** Increased densities should be balanced with a mix of uses to promote walkability as well as public amenities such as parkland and plazas to ensure quality access to green space and recreation.
- **Enhanced Public Realm:** Pedestrian enjoyment of intensification areas should be heightened through concerted placemaking efforts that emphasize the comfort, safety, convenience, and delight of area residents and visitors alike.

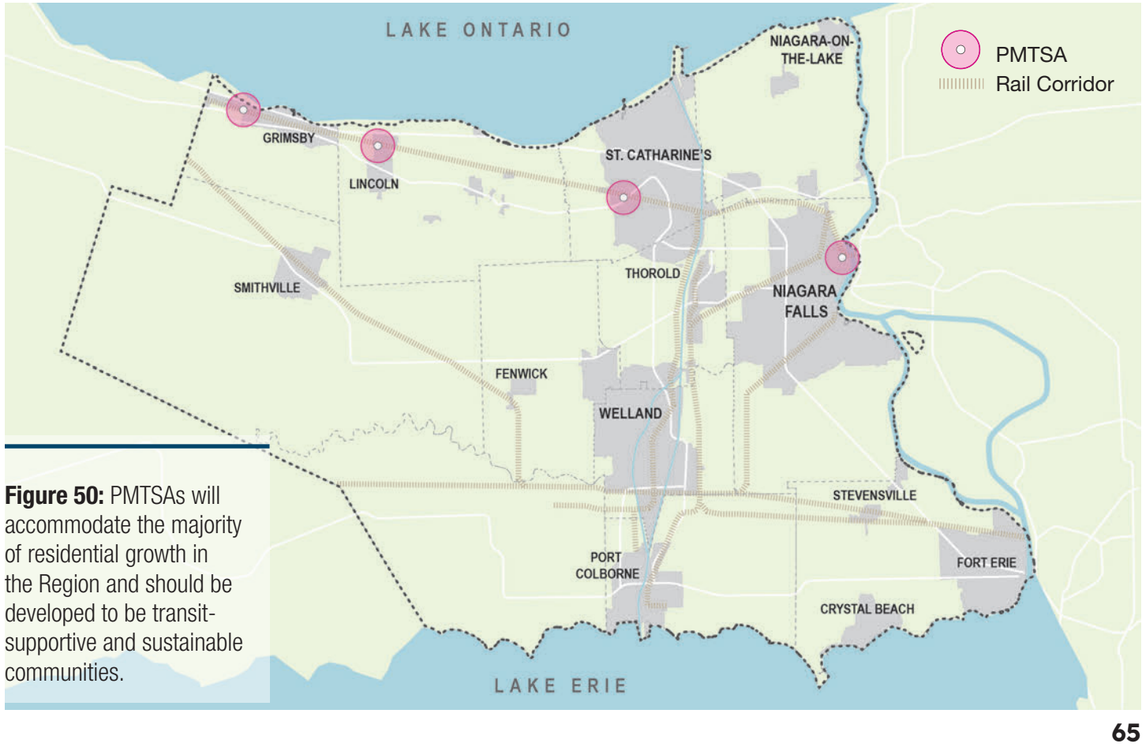


Figure 50: PMTSAs will accommodate the majority of residential growth in the Region and should be developed to be transit-supportive and sustainable communities.

Design Guidelines:

a. Each Intensification Area is unique and has its own growth potential. Intensification Areas, particularly MTSAs, will be the subjects of Official Plan, Secondary Plan, or Site and Area-Specific policies that identify authorized land uses and identify minimum allowed densities within the area. These policies should consider the planned urban structure of the community and draw on local context and conditions to facilitate appropriate intensification.

b. Intensification Areas should consider a mix of uses appropriate for each unique context, allowing new and existing residents the opportunity to meet their needs within comfortable walking or cycling distance.

c. Intensification Areas will be planned to include high quality public parkland, plaza spaces, and public realm to support recreation, placemaking, and community health and well-being.

d. New development within Intensification Areas will be transit-supportive and should benefit from reduced parking standards where appropriate.

e. New development within Intensification Areas will express a variety of building typologies and densities that consider the existing and planned context of the area.

f. New development within Intensification Areas should provide height transitions to existing built forms adjacent to Intensification Areas.

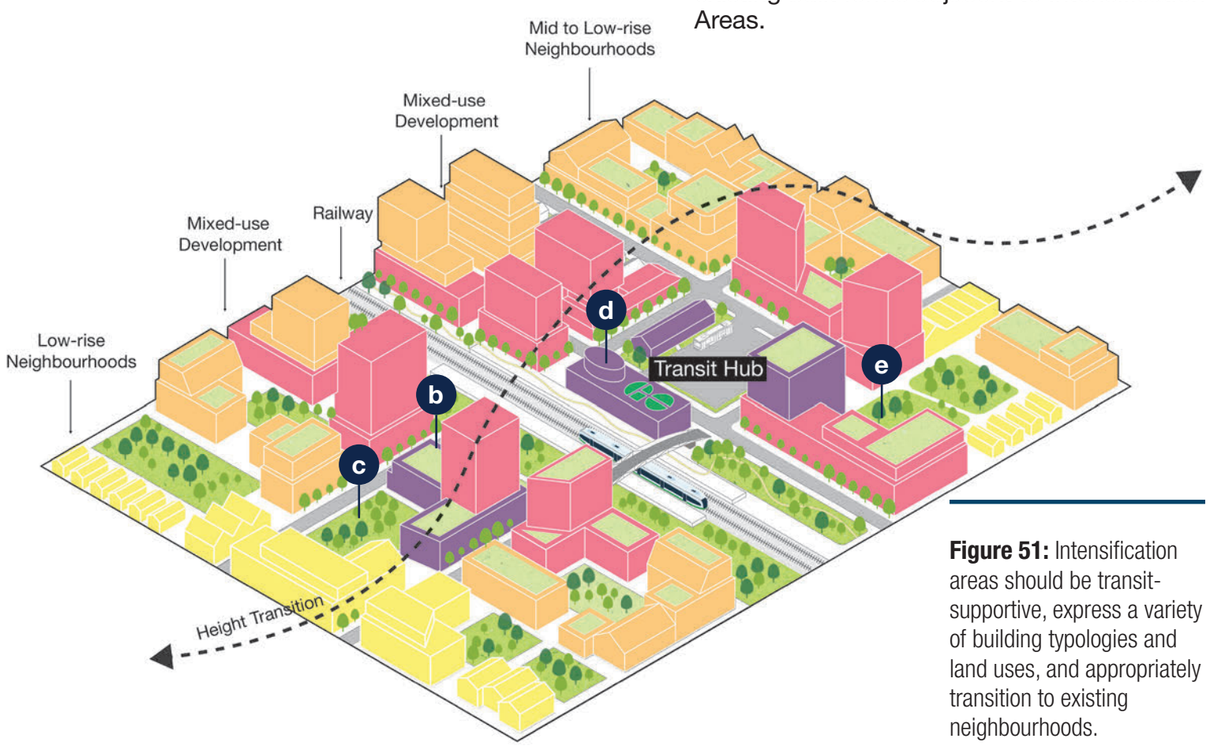


Figure 51: Intensification areas should be transit-supportive, express a variety of building typologies and land uses, and appropriately transition to existing neighbourhoods.

g. New development within Intensification Areas should provide a range of housing options, unit sizes and tenures, including affordable housing, to attract a range of demographics and meet local housing needs.

h. New development should emphasize active ground floor uses to enliven the public realm. Weather protection should be provided to promote walkability.

i. New development should re-inforce the public realm through contextually informed datum lines and human-scale base buildings.

j. New development within Intensification Areas should promote green development and utilize opportunities for district heating and cooling, green infrastructure and LIDs.

Figure 52: Vibrant storefronts thrive alongside bustling cycling facilities and high-quality pedestrian streetscapes, fostering a healthier, more connected community.

Transit Supportive Design Guidelines:

k. Neighbourhoods should provide a mix of land uses and higher residential densities at key locations to generate pedestrian traffic and activity throughout the day, making transit a viable and attractive option.

l. Compact development forms support transit. Higher density development should be located in close proximity to major transit facilities (such as a train station or bus interchange).

m. Transit facilities should be located at public places such as neighbourhood centres, neighbourhood parks and public open spaces, schools, and community facilities (such as a library or gallery), and where good connections are provided. This will encourage higher levels of ridership and efficient operation.

n. Transit facilities should be located within a short walking distance of most residential, commercial and employment uses.

o. Transit facilities should be accessible, high-quality, easy to use and comfortable. Transit stops should be designed to provide safe and comfortable waiting areas, and include adequate weather protection and information. Where four-sided transit shelters are not feasible, provide overhead open-air canopies to protect transit users from sun, rain, and snow.

p. Trails and bicycle routes should link to transit facilities. Secure bicycle parking/storage space should also be provided.

q. Ensure neighbourhood transit stops are located within short walking distances. Ensure walking distance of 200m to 500m (3 to 5 minute walk). Express services and higher order transit routes may have greater spacing for stops.

r. Encourage both daytime and nighttime activities near transit. This can include a mix of offices, retail and services to help facilitate a more balanced level of transit services.

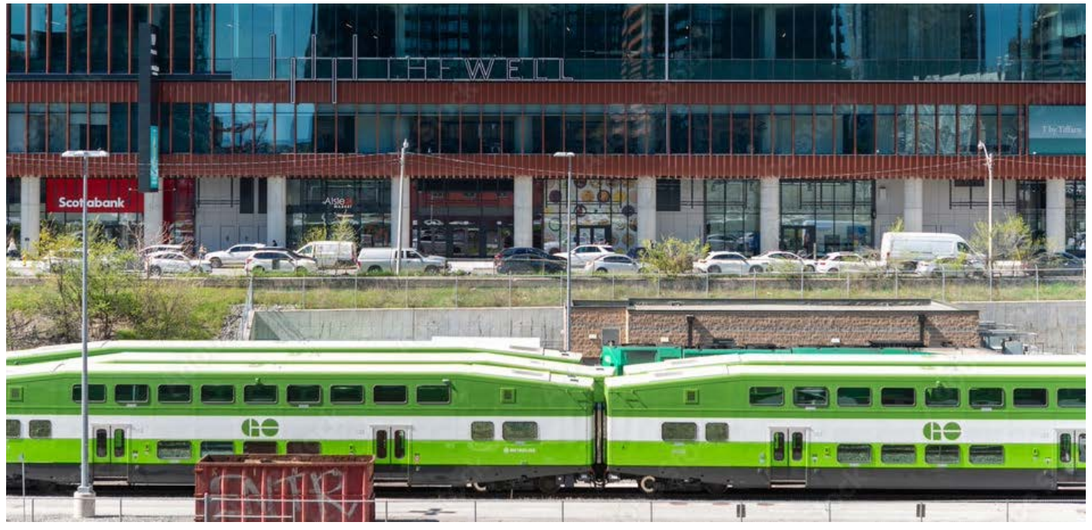


Figure 53: GO Transit facilities in Niagara play a pivotal role in enhancing regional connectivity, offering commuters efficient access to urban centers while alleviating traffic congestion and stimulate economic growth, tourism, and job opportunities.

3.8 Inclusive Community Placemaking

Niagara has a commitment to be as welcoming, equitable, and inclusive as possible while responding to evolving changes needs and growth. Niagara is home to people of diverse backgrounds and demographics. First Nations, Metis, and Inuit people from across Turtle Island work and live in Niagara today. Niagara was once the homeland of the Neutral Nations, and has since become the traditional territory of the Hatiwendaronk, Haudenosaunee and Anishinaabe Peoples, including the Mississaugas of the Credit First Nations. Inclusive approaches to community placemaking provide an opportunity make visible the narratives, imagery, languages, histories and cultures that represent the diversity of the Niagara community.

Niagara's public places should act as inclusive gathering places and landmarks that promote social cohesion, connection, and comfort while strengthening a sense of place. Greenery and landscaping features, public art, lighting, wayfinding signage, play areas, street furniture, and amenities can contribute to placemaking. Placemaking interventions can be introduced to a new development or can be integrated into existing private and public spaces. They may be located within waterfronts, parks and plazas, within POPs, and within the public realm.

Figure 54: The Awen' Gathering Place is an Indigenous gathering place overlooking Collingwood's waterfront, dedicated to teaching, contemplation, and celebration. The gathering place is used to foster sharing and learning, and to advance truth and reconciliation (Brook McIlroy).

Best Practice:

- **Safety and Accessibility:** Public spaces should be physically accessible to people of all abilities and ages, and should also consider factors such as language, cultural norms, and economic barriers. Niagara programs and facilities should be safe spaces for all people.
- **Engagement:** Diverse community members should be involved in the planning, design and management of public spaces.
- **Interaction:** Inclusive community spaces should foster a sense of shared ownership and stewardship among residents through interactive elements such as community gardens, bookable spaces, and pop-up events that appeal to residents from all walks of life.

Design Guidelines:

a. Locate placemaking spaces in highly visible areas to increase awareness and use of placemaking elements. Placemaking spaces should be located in areas that are easily visible and accessible from active transportation routes.

b. The design and procurement for placemaking spaces should center a robust public engagement and co-design process to ensure the community is represented by each space and place.

c. Design flexible placemaking spaces that consider four-season design to respond to space requirements and needs.

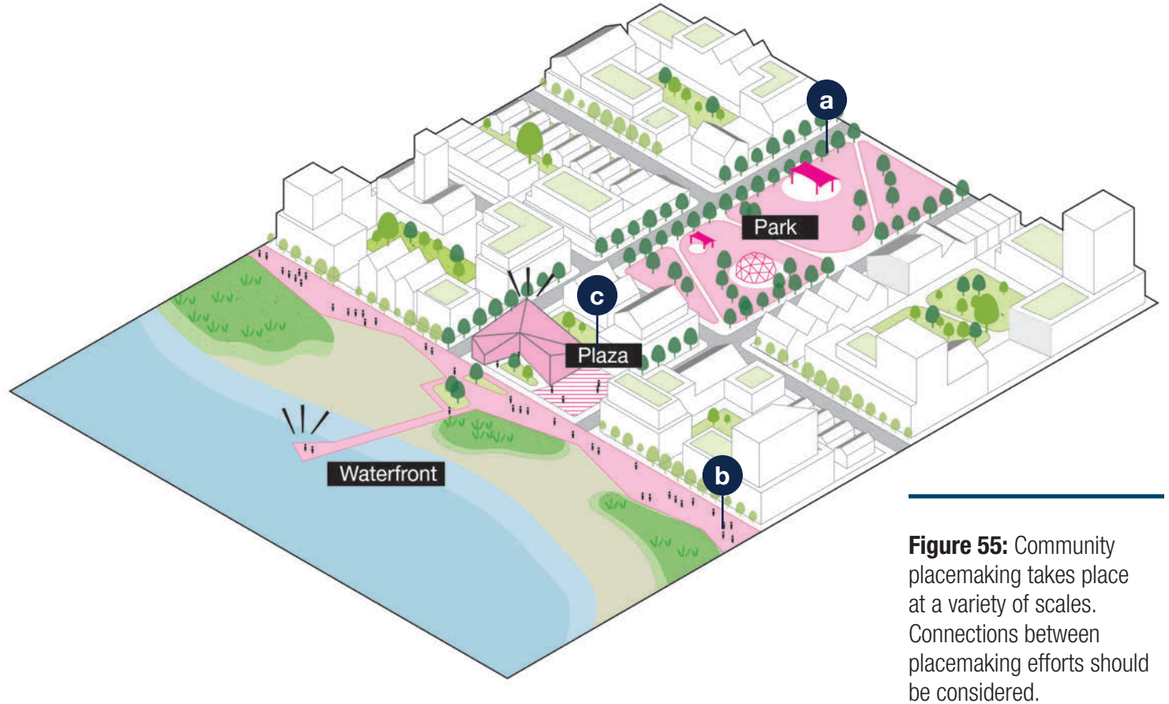


Figure 55: Community placemaking takes place at a variety of scales. Connections between placemaking efforts should be considered.

d. Placemaking elements may include functional elements integrated into the streetscape or public spaces such as transit shelters, planter walls, tree planting grates, and pavers. These may include inlaid text and artwork, murals, imagery or etching.

e. Placemaking elements should ensure AODA compliance and ensure that all community members can experience the spaces and features regardless of age, ability, and means.

f. Placemaking efforts should prioritize the safety, accessibility, and inclusion of Indigenous peoples.

g. Placemaking locations should be appropriate to allow for ongoing maintenance if required.

h. Placemaking elements should be well-integrated and complementary across a placemaking site to tell a cohesive design story. Elements such as pavers, street furnishings, and public art, should be chosen to reinforce the uniqueness and history of the space.

i. Placemaking features and spaces should demonstrate a connection with their surroundings and with the public realm and consider adjacent existing and planned land uses.

j. Placemaking efforts should ensure that public spaces encourage social interaction and pride in our communities.

k. Temporary and permanent placemaking opportunities should be explored in Niagara.

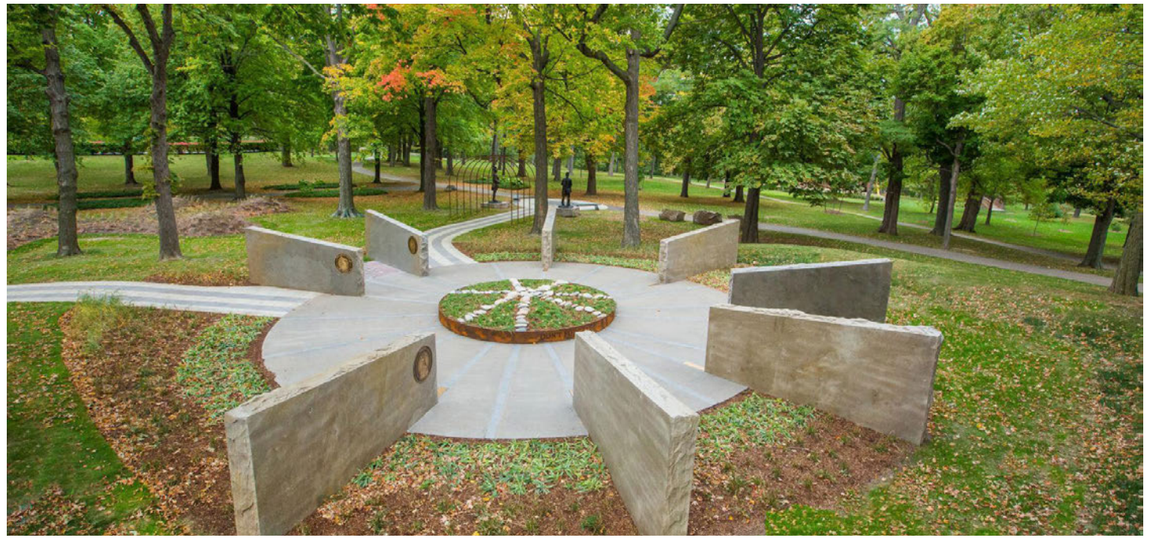


Figure 56: The Landscape of Nations provides a contemplative landscaping intervention within Queenston Heights Park. The memorial is dedicated to the Haudenosaunee Confederacy and Indigenous allies that participated in the War of 1812.

Placemaking at Waterfronts:

l. Placemaking spaces should provide unique and legible destinations at the waterfront that may provide event spaces, social gathering spaces, play spaces, or leisure areas. The intended use of the space will inform its design.

m. Placemaking spaces along Niagara's waterfronts may reinterpret and reinforce the connection to elements of water and wind, ecology, natural landscape, and should be reflective of Indigenous cultures.

n. Placemaking spaces may interpret historic uses at waterfronts where relevant.

o. Placemaking spaces at the waterfront should provide landmarks and destinations for community gathering.

p. Placemaking spaces at the waterfront should be connected to one another by a network of existing or planned active transportation pathways.

q. Placemaking spaces should be designed with attention to how they may be used at all hours of the day and night.

Gateway Guidelines:

r. Gateways to communities, Heritage Conservation Districts, cultural districts and Institutional campuses are encouraged to promote a sense of place.

s. Gateways should be designed to engage with and promote what is unique about the marked area.

t. Gateway structures should incorporate lighting, seating, and planting to provide wayfinding opportunities and gathering spaces throughout the day.

Figure 57: Waterfront placemaking can include spaces that function as both seating and events spaces to activate these important destinations.
Figure 58: Gateway structures can offer placemaking and wayfinding opportunities.

Figure 59: Four-season activated public spaces are vital for fostering community engagement and well-being year-round. By accommodating diverse activities such as outdoor markets, festivals, and recreational activities regardless of weather, these spaces promote social interaction, physical activity, and cultural vitality

u. Gateway structures should be located in the public realm at least 1.5 metres away from vehicular traffic.

v. Gateway structures should be made of durable, high-quality materials that are easily maintained and refurbished as needed.

Placemaking in Parks and Plazas:

w. Placemaking spaces within parks and plazas may include, but are not limited to, public art, wayfinding elements, interactive murals, and events spaces. The intended use of the space will inform its design.

x. Placemaking in parks may emphasize food sovereignty and security through the creation of community gardens and community kitchens.

y. Where public art is provided, consideration should be given to how the public may interact with the art. Maintenance of the public art should be planned for.

z. Placemaking in parks is encouraged to consider social cohesion and recreation in the design of spaces.

aa. Placemaking spaces within plazas should provide flexible designs that can be used for a number of community activities and events such as flexible seating and modular components.

Figure 60: Accessibility in parks and inclusive play structures ensures that all individuals, regardless of ability, can fully participate and enjoy the space. Additionally, thoughtful layout and signage, along with accessible amenities such as seating and rest areas, further enhance the inclusivity, usability and sense of belonging and community.

Placemaking in POPS:

POPS may include courtyards, plazas, gardens, mid-block connections, forecourts, landscaped setbacks, and interior pedestrian connections that are privately owned but publicly accessible.

ab. Placemaking spaces within POPS should be welcoming to the wider community and provide active edges to invite exploration.

ac. Placemaking spaces within POPS may include but are not limited to play spaces, event spaces, social spaces, and public art. The intended use of the space will inform its design.

ad. The design of placemaking spaces within POPS should consider overlook and security.

Relevant Documents:

- Mno Bmaadziwin: Living the Good and Healthy Life, Community Safety and Well-being. Indigenous Engagements Report (2021).

3.9 Neighbourhood Structure

New neighbourhoods and subdivisions are anticipated within Niagara. Land is an important and finite resource and should be developed efficiently while ensuring that new residents and visitors have ample open space to socialize, exercise and enjoy nature.

The following guidelines support the principles of compact, mixed-use neighbourhoods that foster a sense of place, prioritize pedestrian and transit movement, and respect natural environments.

Figure 61: Residents and visitors should have access to open spaces to socialize, enjoy nature, and to exercise.

Best Practices:

- **Identifiable:** Neighbourhoods should play a significant role in the identity and character of the urban areas. To promote distinctive neighbourhoods with a strong sense of place, a defined structure should be established that includes a mixed-use neighbourhood centre, which transitions to an edge with positive interfaces and connections to adjacent areas.

- **Interconnected:** Neighbourhoods should be characterized by a highly interconnected local street network with short block lengths to allow for traffic to dissipate to local destinations, reduce congestion, promote walkability, and improve emergency vehicle access.

- **Compact & Walkable:** Walkable neighbourhoods are transit supportive and residents should have easy access to a network of parks, recreation areas, and local amenities.

- **Diverse:** Neighbourhood developments should provide a variety of block sizes and a variety of street layouts that encourage a mix of housing forms, typologies, and densities, and commercial and employment uses.

- **Respect for Natural Heritage:** The design of neighbourhoods should have strong visual and physical links to natural environmental features, for example, valleys and watercourses.

Neighbourhood Structure Guidelines:

a. Neighbourhoods should generally be designed to include neighbourhood hubs that contain a variety of uses, services and amenities such as community facilities, neighbourhood retail, small scale employment areas, residential, urban open spaces, and access to transit.

b. Neighbourhoods should include an edge that defines their extent. The edge is generally located within walking distance of the centre (approx. 400m) and may be typically defined by:

c. Urban infrastructure, such as Arterial roads or railway lines;

d. Natural features, such as public parks and open spaces, agricultural lands, watercourses, etc.;

- Community facilities such as schools, large parks, large format retail, etc; and/or

- The edge of an adjacent neighbourhood.

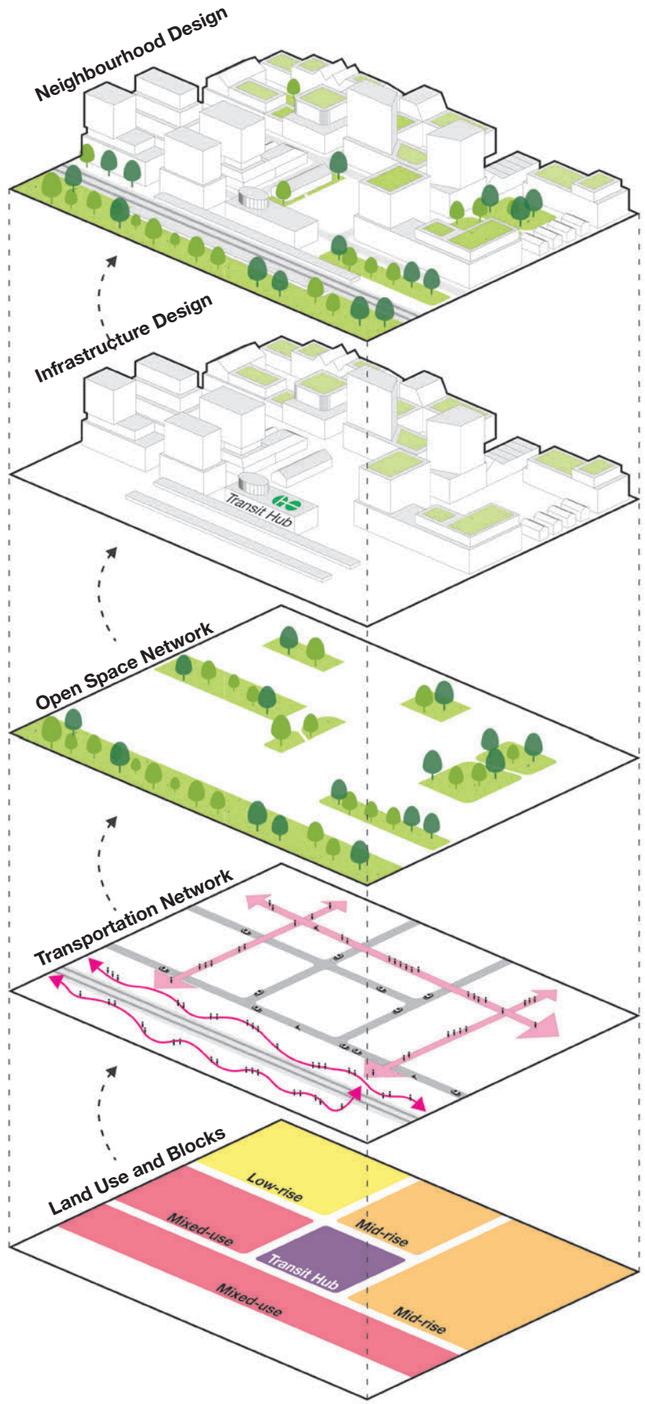


Figure 62: Neighbourhood structure contemplates the interrelationship between land use and blocks, transportation and open space networks, and infrastructure including built forms, to create a comprehensively planned neighbourhood.

e. Areas in close proximity to the neighbourhood centre, a transit corridor, or an employment district should be of higher density to provide a 'critical mass' of population that can sustain commercial and community activities and transit systems. Density should generally decrease towards the edge. Higher density is encouraged at the edge where it is adjacent to large open spaces such as community parks.

f. The neighbourhood movement network should be defined by a fine grain grid pattern of streets with a consistent block orientation that provides multiple connections and maximizes permeability to filter local traffic; assists in local orientation and way-finding; and reduces traffic speeds.

g. A non-repetitive yet simple street and block layout should be provided for visual interest and to maximize views and vistas to parks, green lands, the rural periphery and heritage and landmark buildings.

h. Parks and recreation areas should be distributed evenly throughout the neighbourhood and located within walking distance of most homes. Open spaces should cater to a variety of recreation activities.

i. New communities should be designed to have typical walking distances of 400 metres (5 minutes) to daily activities, or 1200 metres (15 minutes) to higher order transit or community centres.

j. Provide adequate and accessible road, transit, pedestrian, and bicycle links throughout the new communities and developments.

k. Enhance and accommodate cycling networks to be safe, convenient, and legible, including cycling facilities, off-road cycling paths, and multi-use paths. Ensure that the active transit system complies with standards defined in local active transportation master plans and the Niagara Region Complete Streets Design Manual.

Figure 63: Communities should be designed in a manner that is walkable, safe, and sustainable (Image from Region)

Community Hub Guidelines:

l. Community hubs should generally be concentrated in areas accessible by vehicles as well as multi-modal transportation options. The hubs should support added density and activation through mid-rise, mixed-use buildings wherever possible.

m. Wherever possible, neighbourhood hubs should front the existing road network to ensure that new community facilities or commercial uses at grade are visible and accessible to the wider community.

n. The greatest residential densities should be located in close proximity to the neighbourhood hub to promote walkability.

o. Community hubs may contain centralized open spaces and parkland, or provide pathways to connect with adjacent open spaces and parkland.

Figure 64: Community hubs may include recreation centres and community services such as libraries and health centres.

Neighbourhood Edge Interface Guidelines:

p. A high quality interface should be achieved at the edge of neighbourhoods to provide opportunities for public access from streets and adjacent developments.

q. Wherever possible, the perimeter of parks and other public open spaces and natural heritage areas should be faced with single-loaded streets or multi-use trails. Generally, a minimum of 50% of the total open space/ natural feature perimeter should be bounded by the public right-of-way.

r. Pedestrian connections from the public road right-of-way to adjacent public open spaces/ natural features should be provided.

Neighbourhood Parking Guidelines:

s. Where new communities are planned, opportunities to provide shared surface or structured parking should be considered.

t. Where shared surface parking is provided, green buffers and stormwater infiltration should be provided.

u. Bicycle parking should be included in new communities and should be designed with CPTED Principles in mind.

v. Where shared structured parking is provided, it should provide space for green roofs and outdoor amenity spaces.

w. Neighbourhoods should provide a mix of rear lane vehicle access, as well as rear, side, and front garages.

4.0 Block Design

Block design plays an important role in determining the functionality, aesthetics, and livability of a community. Block design considers the placement of buildings, the transition and the interface between buildings, streetscapes, and other private and public spaces. The layout and organization of blocks should consider adjacent blocks, within an overall structure of a neighbourhood or community.

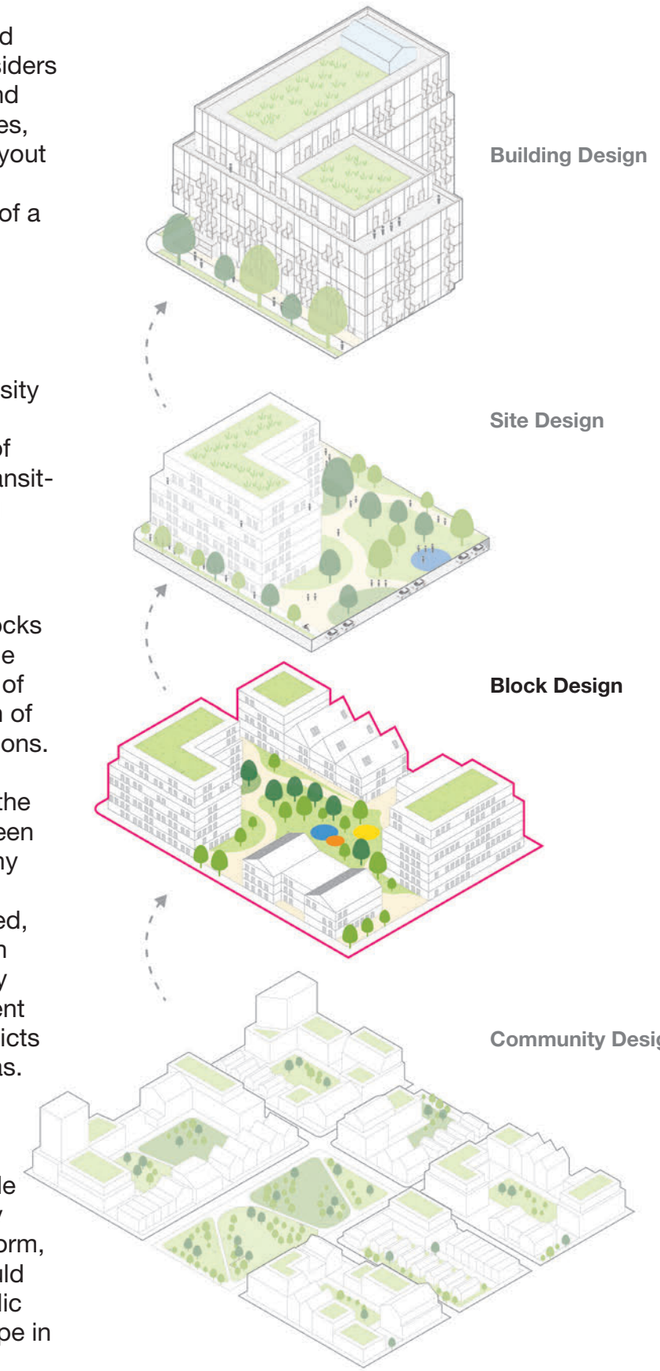
Key elements of block design include:

- Block hierarchy: Blocks along arterial streets may comprise the highest density and heights of buildings appropriate for the context, the greatest amount of mixed uses, and where applicable, transit-oriented design elements. Decreasing height and density should be located within the interior of neighbourhoods.

- Building placement: The design of blocks should begin with the placement of the largest and most prominent buildings of the block first, including the allocation of community facilities at strategic locations.

- Design between buildings: Design of the private and public open spaces between buildings should consider the hierarchy of these spaces, how these spaces complement the buildings being served, and circulation and connectivity within the block. Circulation and connectivity within blocks promote safe and efficient pedestrian access and minimize conflicts with parking, service and loading areas.

Effective block design achieves a balance between various urban functions, such as housing, retail, mobility, and recreation, while fostering a sense of community and identity through appropriate site designs, building form, and architectural design. Block design should contribute to efficient growth, a vibrant public realm, sustainability, and abundant landscape in keeping with the character of Niagara.



4.1 Sustainability and Well-being

Block design should minimize environmental impacts through energy-efficient buildings, green infrastructure, and sustainable transportation options to encourage active living for residents and visitors. Buildings, open spaces, and site design should promote human-scale transition between the public and private realm of neighbouring sites and blocks. Well-being should be prioritized by ensuring equitable and accessible access to green and communal spaces and promoting social interaction through the design of safe and walkable neighbourhoods.

The following guidelines address subject matter regarding urban resiliency, energy efficiency, stormwater management, urban agriculture, and mobility.

Figure 65: Sustainable infrastructure such as rain gardens are innovative and multi-functional areas that incorporate features that retain stormwater, allowing for its infiltration while serving as public spaces that can be used for leisure and community events (Niagara Region).

Best Practices:

- **Landscape Driven and Nature-Inclusive Design:** Green infrastructure, agriculture, gardens, parks, and open spaces provide opportunities for recreation, enhance biodiversity, reduce urban heat island effect, and offer benefits to improve mental and physical well-being.
- **Comprehensive and Diverse Communities:** Integrate a mix of housing typologies to accommodate a range of income levels and housing needs to foster social inclusivity. Walkable neighbourhoods, accessible public spaces and amenities and robust public transportation options promotes connectivity and enhances quality of life for all residents.
- **Energy Efficient and Renewable Energy:** At a block design level, energy efficient and renewable energy such as geothermal systems, solar, and wind sources, reduces the reliance on fossil fuels and promotes sustainability and resilience in the community.
- **Walkability and Connectivity:** The connection to surrounding street networks, trail systems, and pathways connect neighbourhoods and communities together. These systems should be accessible and safe for pedestrians and cyclists.

Design Guidelines:

a. Promote compact developments that use less land, protect local food-producing agricultural lands, and reduce reliance on the transportation of food and goods that are produced further away.

b. Blocks adjacent to arterial and collector streets are encouraged to be mixed-use, to promote convenient access and connections to shops, retail, and social spaces.

c. New developments should prioritize pedestrian connections and minimize walking distances to existing community facilities such as libraries, and community or recreation centres.

d. Encourage and maintain a high-quality public realm within streets, parks, and public open spaces that ensures safe, seasonally appropriate and equitable access to all-season public amenities.

e. Encourage and create opportunities to co-locate complementary community amenities, services, and facilities with new developments to optimize community benefits and promote shared uses such as community centres, public libraries and sport facilities. This will create hubs for age-friendly uses and intergenerational activities and aging-in-place programming.

f. Provide a variety of parks and open spaces with programming that can cater to the needs of all users and abilities. Ensure that these spaces are safe, welcoming, and animated.

Figure 66: Sustainability and well-being can be promoted at a block level through a variety of design measures.

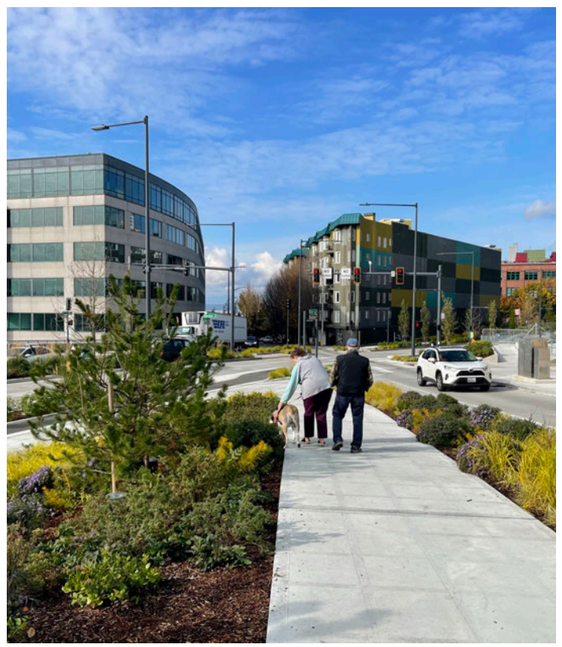
Resilience Guidelines:

g. Promote the design of natural and constructed infrastructure systems to function with an appropriate level of service risk in both the current and projected future climate.

h. Encourage the design of built and natural systems with appropriate natural buffers for the changing climate (e.g. more intense rainfall events and extreme temperature fluctuations).

i. Evaluate the potential and placement of critical infrastructure to reduce damage from climate related risks.

j. Public realm amenities should include structures that enable year-round use with weather protection strategies. Weather protection strategies can include the strategic planting of trees, purpose-built shelters or other landscape elements.



Landscape and Stormwater Management Guidelines:

k. Plant trees consistently throughout the block and along street edges to create an attractive environment, provide shade, extend the urban tree canopy, and reduce solar gain on buildings and public spaces in summer months.

l. Promote mature tree canopy through planting of large shade trees and vegetated areas with adequate soil volumes.

m. Integrate natural stormwater management systems and LID strategies to manage stormwater including bioretention facilities such as rain gardens, bioswales, green roofs, and permeable pavements to reduce the loads on municipal stormwater infrastructure.

n. Maintain natural drainage networks and preserve environmentally sensitive areas to reduce water runoff and provide for natural filtration of stormwater.

o. Stormwater management features should be strategically located to take advantage of the existing topography and drainage patterns.

Figure 67: Landscaping features can create attractive environments that provide stormwater management benefits and enhance a sense of place.

Energy Guidelines:

p. New developments should incorporate both active and passive strategies to reduce demand and increase energy efficiency to minimize the impact on conventional energy distribution networks. Encourage and promote the use of alternative clean and renewable energy sources.

q. The orientation, location, and design of buildings should promote sustainability best practices such as natural ventilation, daylight, and passive heating to maximize energy performance.

r. Consider exploring sewage heat recover systems to supply supplementary thermal energy for building and infrastructure.

Urban Agriculture Guidelines:

s. Promote the integration of community gardens as alternative uses of green space which promote socializing, community programming, and access to locally grown food.

t. Promote initiatives such as sustainable food production practices as a component of a new development. Development plans can consider opportunities for local food production through:

- Community gardens or allotment gardens in open space areas;
- Small-scale food processing, such as community kitchens, food co-ops and community food centres;
- Small- and medium-scaled food retailers; and,
- Local market space, agriculture at community facilities or community gardens in public parks.

Figure 68: Buildings can produce energy through the addition of solar panels on rooftops.
Figure 69: Community gardens and shared amenities can create versatile, inclusive spaces that promote social interaction and enhance the overall quality of life for residents.

4.2 Block Design and Structure

The design and structure of blocks is improved by the delineation of streets and/or walkways and open spaces. Well integrated block structure is informed by all elements of the block including built form, site design, site access and servicing, and open spaces. For Niagara, the arrangement of buildings, open spaces, and infrastructure within blocks should promote sustainability and walkability, support the creation of complete communities, include diverse housing typologies, create spaces to socialize, and provide opportunities for recreation.

Design Guidelines:

a. Well-connected blocks promote wayfinding, accessibility, and a variety of lot sizes. New communities should include a well-connected grid of streets and laneways and be characterized by short block lengths.

b. Block orientation should maximize opportunities for winter solar exposure to minimize winter heating requirements. Where possible, the tallest buildings within a block should be located at the north to minimize shadow across the block.

c. Blocks should be designed to limit curb cuts along the public right-of-way. Shared vehicular laneway access is encouraged.

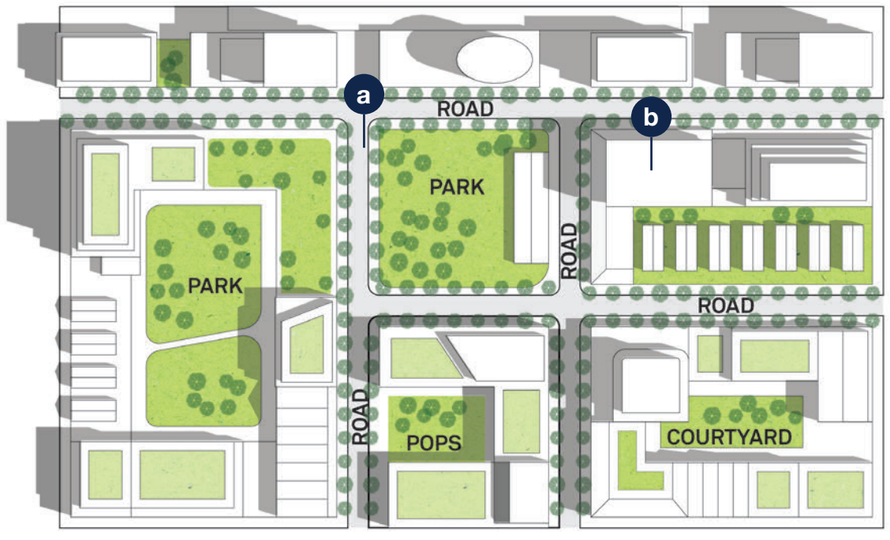


Figure 70: Block orientation should optimize opportunities for winter solar exposure and limit shadow impacts on public open spaces and parks.

d. Cul-de-sac streets should be avoided, except where the topography, context, or other block constraints impede the grid.

e. Block lengths should generally range between 200 and 250 metres. In special circumstances where blocks are longer than 250 metres, a mid-block connection or parkette should be provided.

f. The width of blocks may vary to accommodate varied land uses and development options.

g. The street grid may shift to preserve the existing context to create distinct neighbourhood enclaves, while allowing for significant view opportunities to natural features, parks, public and historic buildings and landmarks.

h. Street grid patterns should promote connections for multi-modal transportation, reduce congestion, promote walkability and improve public transit and emergency vehicle access.

i. Laneway based housing is recommended where possible to eliminate the need for individual driveways and street facing garages.

j. In existing neighbourhoods, opportunities should be pursued to connect streets to adjacent or new development. The number of connections should be maximized for permeability.

Block Structure:

k. Parks and open spaces within blocks where feasible should generally be located toward the south to minimize shadow impact from adjacent buildings.

l. Height transitions within blocks are strongly encouraged to maximize sunlight access, preserve views and promote privacy between different sensitive land uses.

m. Where differing or sensitive land uses are planned, uses should be separated by open spaces or laneways.

n. Where appropriate, differing land uses may be separated by privacy screening including fencing or landscape or a combination of both.

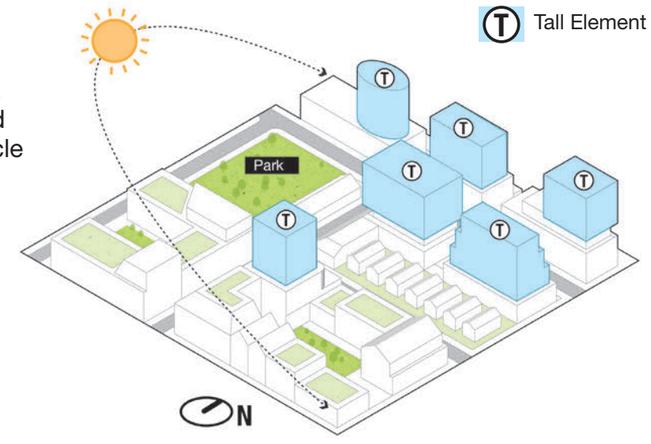


Figure 71: New developments, taller buildings, and the street grid should work harmoniously together to maximize sunlight access on open spaces and parks.

Architectural Guidelines:

o. Variety of appearance should be achieved on the scale of a site and block to create visual interest in the streetscape and to help distinguish buildings and blocks from one another. This can be achieved through a combination of variation in material, building form, and setbacks.

p. A variety of options for housing, in the form (detached, semi-detached, townhouse, apartment), size (studio, 1-bedroom, 2-bedroom, 3+bedroom), and tenure (rental, condominium, freehold, co-op) should be provided within blocks to appeal to a diverse residential market and to offer greater choice in housing within the Region.

q. A variety of low-rise or mid-rise building forms should be introduced within residential areas to create a mix of density across the neighbourhood, providing equitable access to amenities, parks, open space, transit, and active transportation routes.

Height Transitions:

r. Taller and higher density building forms should transition toward lower-density low-rise building forms, parks, open spaces, and natural areas through the introduction of intermediate building forms and stepping in height.

s. Building massing and scale should be designed to effectively transition between new development and existing sensitive uses including low-rise neighbours, natural and cultural heritage resources, parks, and open spaces.

t. Where an established consistent setback exists along a street edge, the setback of new buildings should align with the prevailing setback of existing buildings. Where a site bridges dissimilar setbacks of different uses (e.g. from commercial to residential), efforts should be made to step the building massing to reconcile the difference in setbacks.

u. Where an existing heritage resource is located within, or adjacent to a site, the scale, massing, and height of new buildings should respect and respond to the scale and articulation of the heritage resource. New buildings should strive to maintain the prominence of the heritage resource in the streetscape using setbacks and step-backs to reduce visual impacts of the new building.

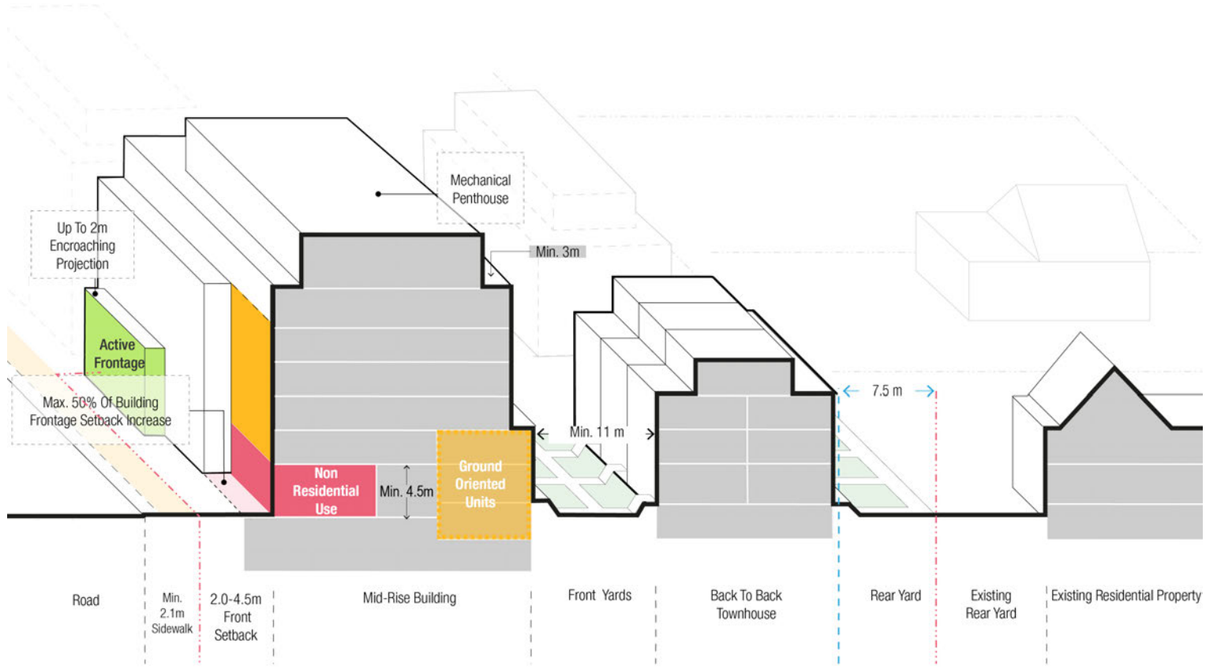


Figure 72: Blocks should transition in height and scale as appropriate.

4.3 Laneways and Mid-Block Connections

Laneways and mid-block connections can improve connectivity within a block design context and provide direct access to residential rear garages, rear yards, and in mixed-use areas, and service and loading areas. Mid-block connections encourage safe pedestrian passage through blocks and create opportunities for POPS or public space.

Laneway Guidelines:

a. Where feasible, commercial and mixed-use blocks should provide laneway access for service vehicles and loading access to promote pedestrian priority and minimize curb cuts at the streetscape.

b. New residential or mixed-use communities should provide laneways to promote shared access to rear garages, service areas, or underground garage access points.

c. Laneways may provide access to accessory dwelling units at the rear of residential properties.

d. Laneways in commercial and mixed-use areas may provide temporary or permanent placemaking opportunities.

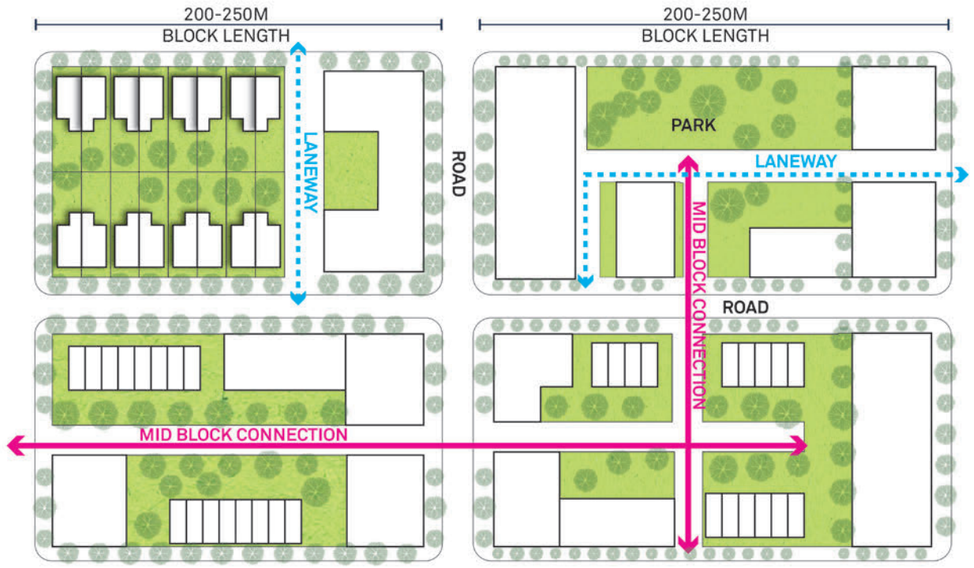


Figure 73: Block length should range from approximately 200 - 250 metres. Laneways should be used where possible to eliminate the need for individual driveways and street facing garages.

e. Laneways should be provided where development fronts onto an Arterial or Collector Road network. Also, laneways should be considered to provide access to parking on small lots - particularly narrow lots, and in retail/commercial areas.

f. Single-loaded laneways should provide a minimum right-of-way width of 6.0 metres plus a minimum 1.0 metre setback to the garage wall to accommodate snow storage and sight lines.

g. The use of durable permeable materials is encouraged where insufficient drainage exists.

h. Primary building elevations should not face laneways except where the building does not face a public street, or if the building is an accessory dwelling unit.

i. Laneways should be well lit to ensure the safety of users.

j. Access to servicing and loading areas should be provided from rear laneways where possible. It should include design treatments to minimize impact and improve safety for pedestrians and cyclists crossing these areas.

Mid-Block Connections Guidelines:

k. Mid-block connections should be created to improve block circulation for pedestrians and cyclists.

l. Mid-block connections should be provided where blocks are greater than 300 metres in length and should be a minimum of 3.5 metres in width, with greater widths adjacent to buildings with base heights greater than 2-storeys.

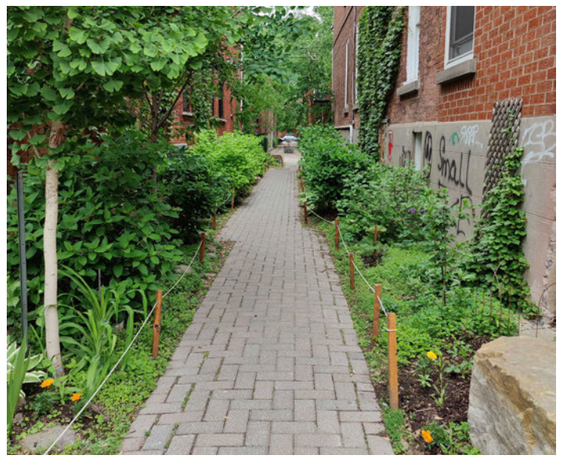


Figure 74: A pedestrian clearway width of a minimum of 2.1 metres should be accommodated within the mid-block connection.

Figure 75: Example of a two-way laneway configuration that provides servicing and loading adjacent to buildings.

m. A pedestrian clearway width of a minimum of 2.1 metres should be accommodated within the mid-block connection. If cycling infrastructure is adjacent to the mid-block connection, a clearway of 3 metres should be provided to accommodate both pedestrians and cyclists.

n. Adequate lighting should be provided for safety.

o. The interface between adjacent buildings and mid-block connections should promote views to the walkway. Where a building abuts a mid-block connection, passive surveillance through increased overlook is recommended.

p. Where commercial uses abut a mid-block connection, greater widths are recommended, to encourage active public use of the mid-block connection. Widths of 5.0 metres or greater are recommended.

q. Porous pavement or permeable pavers are encouraged in mid-block connections to promote stormwater infiltration and an inviting pedestrian environment.

Figure 77: Laneways may provide shared access to rear garages, as seen in Garrison Village.

Figure 76: Residential mid-block connections should be at least 3.5 metres wide and include pedestrian-scaled lighting.

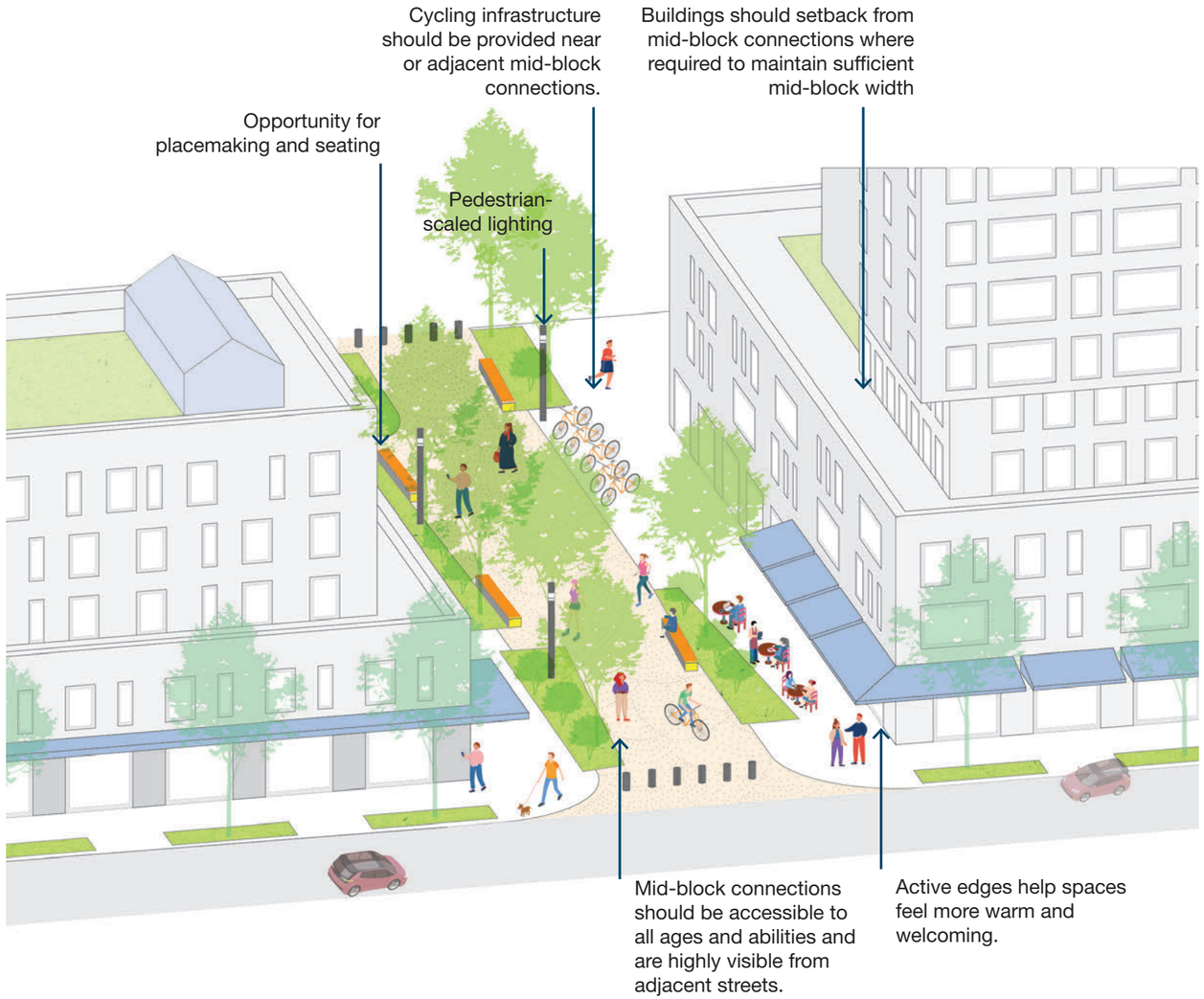


Figure 78: Where feasible, commercial and mixed-use blocks should provide vibrant and green mid-block connections.

4.4 Utilities and Services

The location of utilities and service areas should be carefully considered at the block design level. The siting of utilities and service areas should be unobtrusive, and screened from public view.

Design Guidelines:

a. Utilities should be located below grade, typically in the boulevard section of the right-of-way, as part of new construction and reconstruction of a road.

b. The use of a joint utility trench is encouraged for access and maintenance benefits. Above-grade utilities should be sited with regard for their visual impact on the streetscape.

c. Above-ground utilities, should be located away from intersections, day-lighting triangles, and screened from public view.

d. Street grade public utilities, where feasible, such as transformer pads, telephone switching stations, and junction boxes should be screened in a manner appropriate for the surrounding neighbourhood.

e. Community mailboxes should be considered as important amenities where people socialize. Their siting and access should reflect the level of use and exposure they receive on a daily basis.

f. Mailboxes may include other elements such as community boards/or a canopy for shelter.

g. Joint service trenches are recommended for efficiency, and should be located within the road right-of-way.

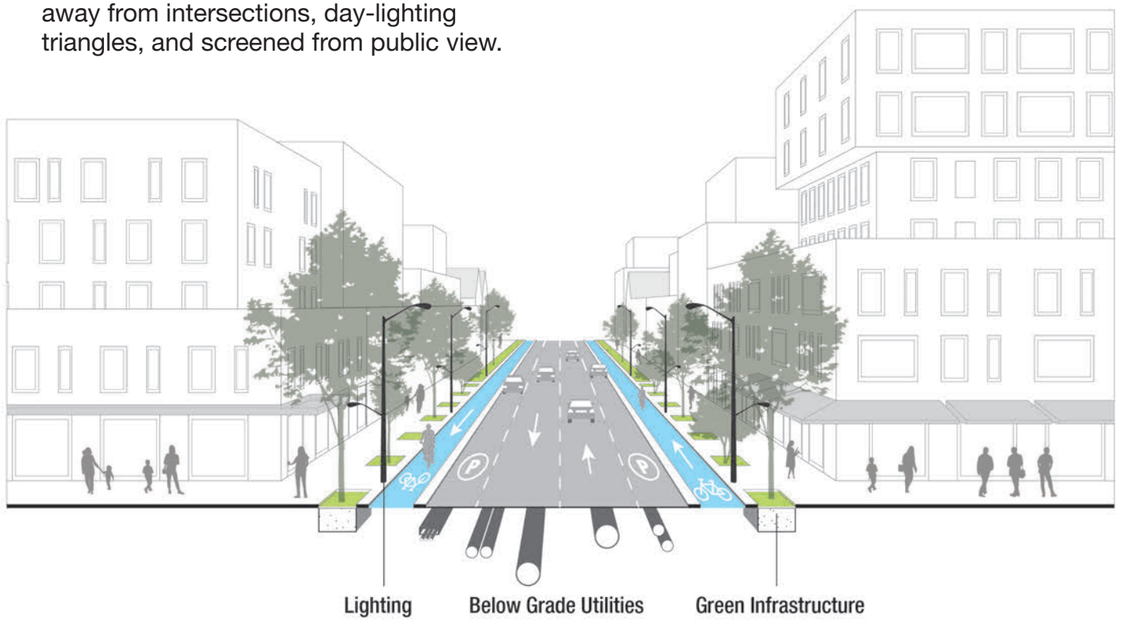


Figure 79: Below grade utilities are encouraged to limit their impact on the public realm and should be located away from trees to maintain soil volume.

4.5 Community Facilities

Community Facilities are varied and support a variety of local community functions to serve residents and visitors. Examples include community parks (1.5-3.0 ha), local parks (0.5-1.5ha) and parkettes (<0.5ha). Comprehensive community facilities at the block design level should ensure accessibility, inclusivity, and safety by integrating well-connected pedestrian paths, diverse amenities for all ages, and promotion of public health.

Best Practices:

- **Safe, Accessible and Connected:** Community facilities should be easily accessible, pedestrian-friendly and located near public transportation for residents and visitors. Pathways and streetscapes should connect to these spaces seamlessly from adjacent neighbourhoods.

- **Inclusive and Diverse:** Facilities and spaces should cater to diverse community needs and demographics. Spaces can be multi-functional and flexible that can adapt to different uses over time.

- **Resilient and Sustainable:** Integrate green infrastructure, sustainable practices and materials, and energy-efficient technologies in the construction and maintenance of facilities.

Figure 80: Inclusive and diverse community facilities can be achieved at many scales in Niagara (Humber College Cultural Markers, Brook McIlroy).

Design Guidelines:

a. Promote integration of parks and open spaces with the surrounding public realm by:

- Providing generous street frontages and publicly accessible walkways and/or open spaces along the park. Ensuring the perimeter of the park has a minimum of 50% publicly accessible frontage.
- Upgrading streetscape treatment and furniture along parkside streets.
- Integrating the park and adjacent streetscape elements such as planters, benches, and soft landscaping with multiple entry points along the frontage of the park.
- Encouraging pedestrian connections, courtyards, and view corridors to lead to or connect with the park.

b. Design facilities to incorporate public art, cultural elements, and historical elements to reflect the identity and heritage of the community to create a sense of place.

c. Public spaces should be adaptable and provide opportunities for artistic, musical, and cultural expressions.

d. Provide easy access to universally accessible public restrooms along well traveled walking and cycling routes and in highly visible locations nearby to public spaces.

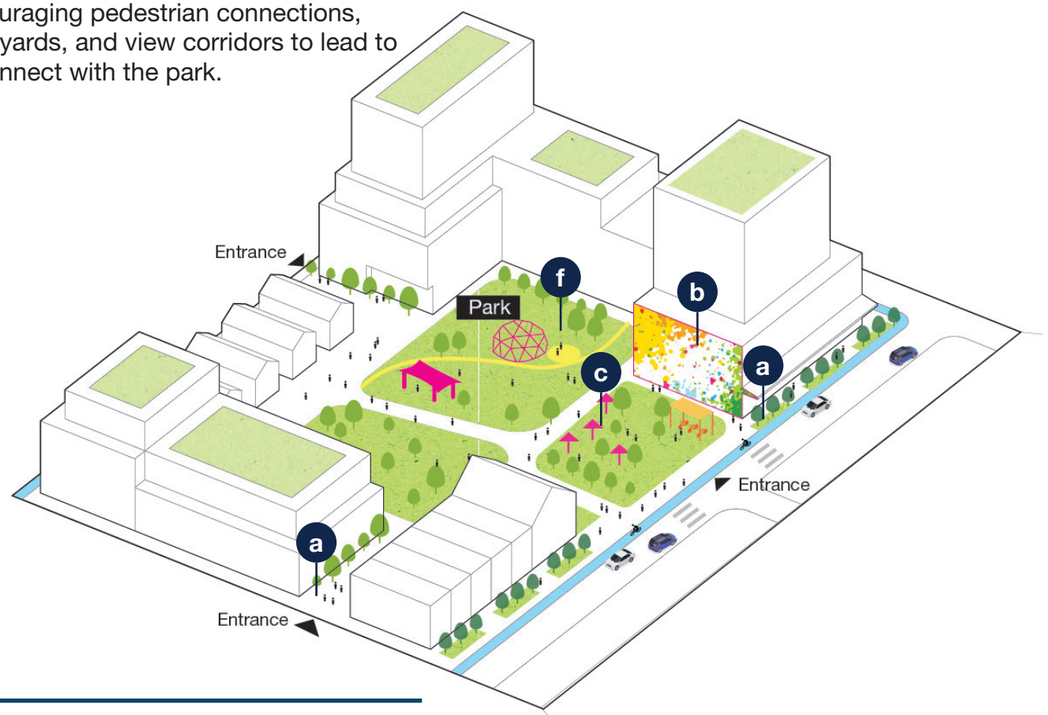


Figure 81: Public amenities, open spaces, and parks should be well-maintained and connected to accessible pathways.

e. Ensure that the needs of children, youth, older adults, and families are considered through meaningful engagement and by providing quality public space experiences for all ages.

f. Encourage elements of learning and play that are not limited to playgrounds but also natural spaces, sidewalks, plazas, and parks.

g. Community facilities should utilize Crime Prevention Through Environmental Design (CPTED) principles to deter crime and increase sense of security.

h. Community facilities should establish clear plans to be regularly maintained and managed. These areas should be kept clean, safe, and welcoming.

Community Park Guidelines:

i. Park amenities and facilities such as washrooms, playgrounds, and sporting facilities should be designed and constructed to meet AODA standards.

j. Private developments should provide sidewalks and pedestrian connections abutting public parks and open spaces. Green transitions to parks and open spaces through tree planting and indigenous vegetation is encouraged.

k. Design parks, playgrounds, and open spaces to have a variety of climate environments to facilitate activity in different seasons and weather conditions.

l. Where possible, developments should provide active uses at grade fronting onto parks and open spaces with entrances, clear glazing, walkways and landscaping.

Figure 82: Parks should incorporate shade structures and materials should be selected for durability and safety throughout the year.

m. Park entrance design should provide amenities including visitor drop-off areas, pedestrian scale lighting, and signage to assist in orientation and use of park amenities.

n. Parks should include facilities for passive activity including walkways, formal gardens, seating areas, park pavilions and interpretive displays relating to local history or the natural context.

o. Bicycle storage facilities should be provided at all public parks and open spaces to encourage alternative modes of transport. They should be designed following CPTED principles with maximum pedestrian access, views, and lighting to deter bicycle theft.

p. Composting facilities may be located within park and open space for the purpose of composting organic waste obtained either on or off-site.

q. Where possible, landscaped features within parks should look to reuse materials to promote sustainability and a circular economy.

Figure 83: Seating areas may frame pathways, entrances, and recreational areas in community parks.

Neighbourhood Parkette Guidelines:

r. Neighbourhood parkettes can be as small as one or two residential lots and should generally be located within 400 metres or a 5-minute walk of most dwellings.

s. Structures within neighbourhood parkettes may, where their size permits, include a variety of elements, including minor outdoor playing fields, ice pads, shade pavilions and children's play equipment.

t. Parkettes should be open to a minimum of two sides of a public street or public open space and a minimum of 50% of the park perimeter. It is accepted that this may not be achieved where the parkette is located at a mid-block condition.

u. Mid-block parkettes should be a minimum of 12 metres in width.

Figure 84: Neighbourhood parkettes provide opportunities for local neighbourhood open space at the block level and should include a mix of seating and greenery.

4.6 Lot Design

Blocks typically contain multiple lots that directly impact the built form and open space potential of any site. Lot size and variety have a direct impact on development costs, density, and affordability. The following guidelines aim to achieve an appropriate balance of large and small lot sizes and to promote a variety of development types, sizes and designs.

Design Guidelines:

a. Lot orientation should maximize opportunities for winter solar exposure to minimize winter heating requirements. Orientation should be predominantly north-south.

b. Blocks should be comprised of a variety of lot sizes to ensure a diversity of building and open space types, forms and designs and to allow for transition between lots.

c. Proposed lot sizes and orientations should protect access to natural light, frame key views, and respect and reinforce existing and future connections to the surrounding area.

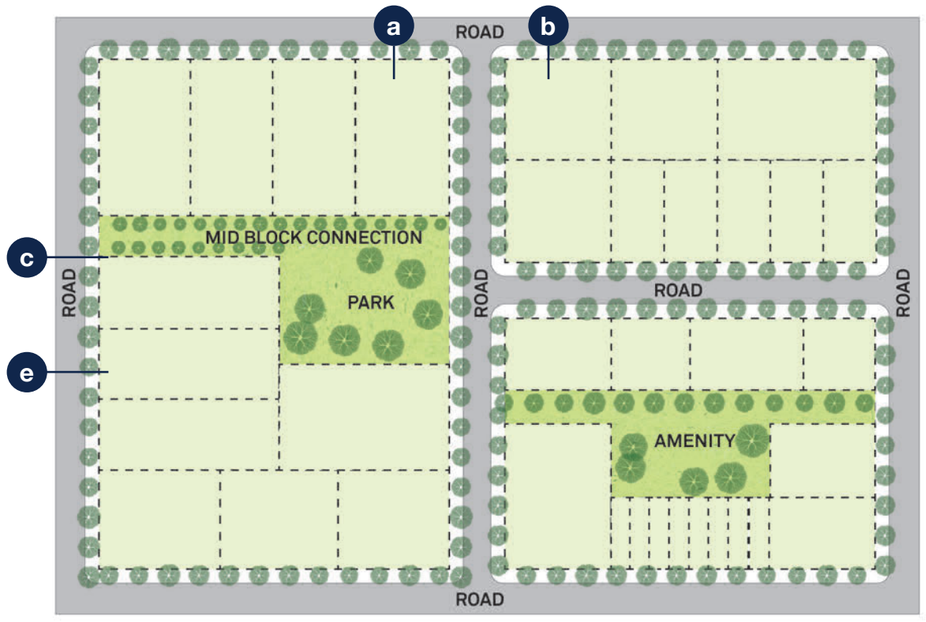


Figure 85: Diverse and varied lot sizes features a mix of residential, commercial, and green spaces, creating a vibrant and dynamic neighbourhood.

d. Lots should be designed to preserve and integrate the natural grading and topography of the sites.

e. Generally, lot shapes should be rectilinear to facilitate design and siting options. Lot variations may be considered to manage slope, property boundary, or natural and cultural heritage features.

f. Corner lots may be wider to permit appropriate building setbacks from both streets and provide sideyard landscaping for privacy and between the street and dwelling.

g. Irregular lots, corner lots, and some mid-block lots may be developed as parkettes, providing open space for passive recreation, gardens, and/or public art.

h. Lots adjacent to neighbourhood centres, public transport facilities, or adjacent to higher amenity areas such as parks and environmental features should be designed to support higher density forms of development.

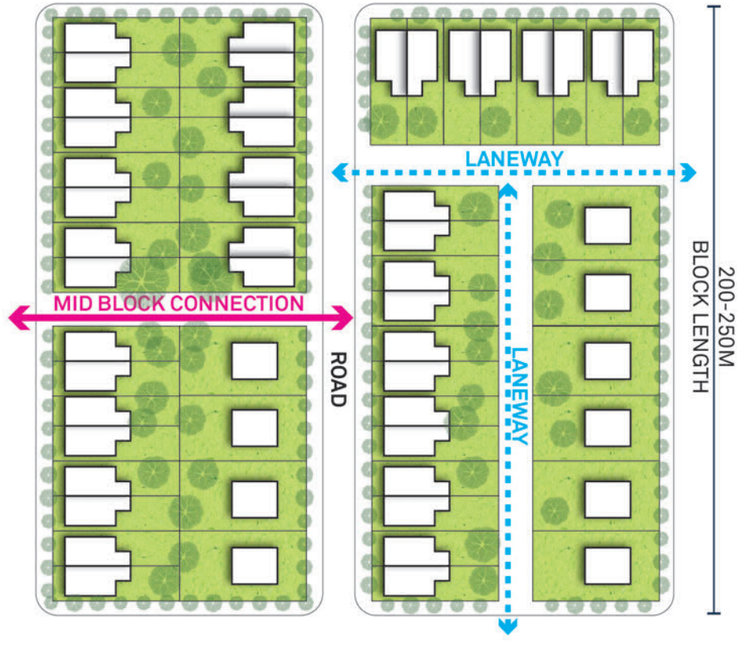


Figure 86: Varied lot sizes contribute to a visually appealing and socially inclusive environments and can cater to different housing needs.

4.7 Public Art

Public art can create a sense of place and encourage a shared identity of a communal space. Public art enhances the public realm by animating spaces and engaging people, storytelling, and providing landmarks. Public art can also be an important tool for honouring the local heritage, culture, and context of the site.

Best Practices:

Accessibility and Inclusivity: As a part of the public realm, public art should be accessible to everyone. The location of the art should ensure that it is accessible both physically and visually to the public.

Sensitivity to Context: Public art should be place-specific. Explore opportunities to use public art to create a sense of identity for the block or neighbourhood, celebrate and honour history and diverse culture, public art should complement the existing built environment through material choice and scale.

Figure 87: Public art should be sensitive to its context and support a sense of place in Niagara (Niagara Strait).

Diversity of Mediums: Consider a variety of mediums for public art. This can range from temporary installations to permanent public art pieces at many different scales, and art that is both free standing and integrated into the built form or landscape.

Contributing to the Community: Public art is an opportunity to activate and involve the community, creating investment in the public space. Procurement of public art should aim to support local artists, and promote and facilitate artistic excellence in Niagara.

Design Guidelines:

a. Public art should be place-specific. Ensure the art is appropriate to the site or location's physical and cultural context.

b. Public art should be located in public spaces that are accessible 24 hours a day (or through the site's hours of operations), and clearly visible and physically accessible to the public.

c. Public art should be placed at key locations on the block that experience high pedestrian activity, including outdoor amenity spaces, parks, and mid-block connections.

d. Significant public art pieces should be the subject of design competitions to support local artists and to promote excellence and innovation.

e. Consider public art that is interactive or integrated as part of site furnishings and the design of public realm elements, including seating, paving, lighting, signage, and wayfinding.

f. Ensure materials for public art are high quality, durable and able to be maintained.

g. Consider installing public art in different mediums, levels of permanence (permanent or temporary), and scales.

h. Public art should be well considered and designed as part of the landscape. It should not obstruct pedestrian, cyclist or vehicular circulation, entrances, windows, or sight lines to important natural and built features.

Relevant Policies or Documents:

- City of Niagara Falls Public Art Policy (2008)
- City of St Catharines Public Art Policy (2003)
- Town of Pelham Public Art Plan (2016)

Figure 88: Public art may be incorporated into the streetscape and should be complemented by site furnishings.

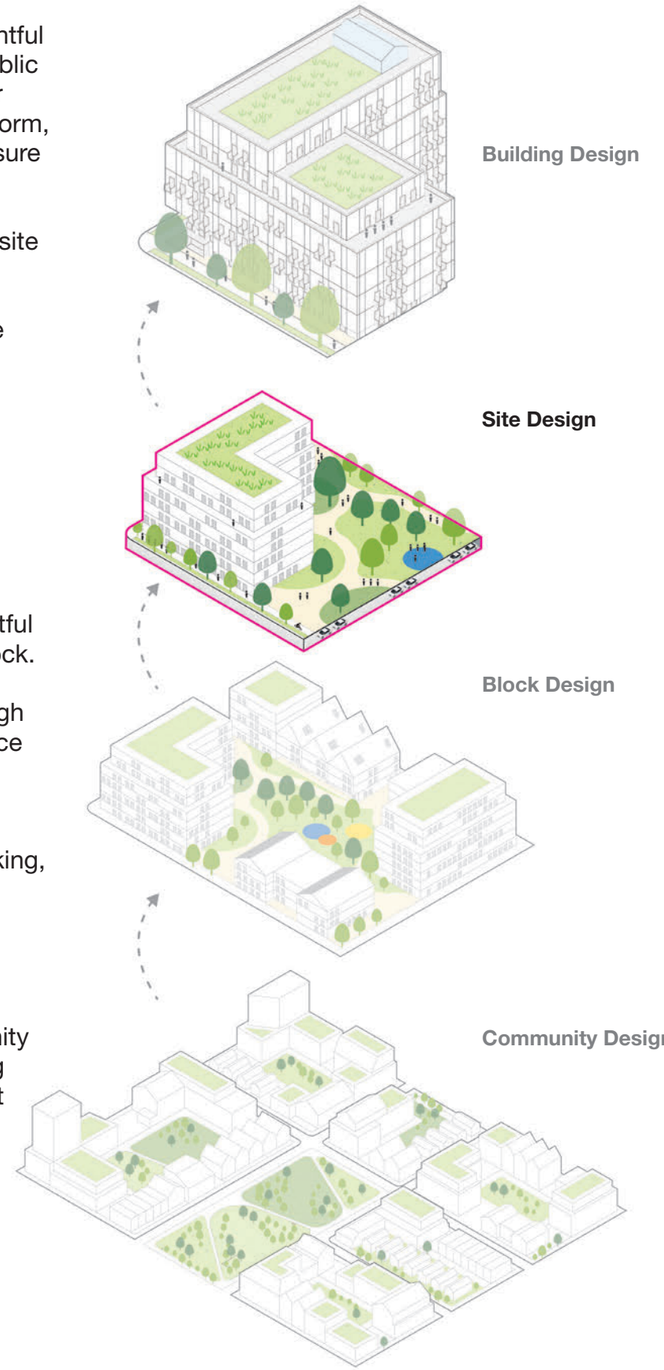
5.0 Site Design

Site design provides an opportunity to positively impact Niagara through the thoughtful integration of buildings, open space, and public realm. Sites should be designed in a manner that responds to existing and planned built form, open spaces, and adjacent properties to ensure positive interfaces and transitions.

Key elements of comprehensively designed site include:

- Publicly accessible spaces and private amenities improve the well-being of residents and visitors and support the existing community.
- Thoughtful orientation, location and massing ensures privacy and positive micro-climates on the site its surroundings.
- Transition between buildings is respectful of adjacent sites and fits within the block.
- Visual buffering of parking areas through landscape interventions should enhance privacy, support beautification and sustainability.
- Unobtrusive access to the site for parking, loading, and servicing.

Sites should support sustainability and well-being, stewarding the land efficiently while also enhancing landscape and biodiversity. Sites should contribute to a vibrant community through good public realm design in keeping with the character of Niagara's many distinct communities.



5.1 Sustainability and Well-being

Site design should ensure that the changing needs of residents are met over time, including places to socialize, play, work, and learn. The design and location of site features can impact how people use spaces and their sense of safety and security while inhabiting or moving through a space. A holistic design approach to development should consider the natural conditions of a site and support sustainability principles for an overall site.

Best Practices:

- **Landscape Driven and Nature-Inclusive Design:** Green infrastructure, such as rain gardens, bioswales and green roofs provide opportunities for recreation, enhance biodiversity, reduce the urban heat island effect, and offer benefits to improve mental and physical well-being while reducing the need for costly underground stormwater management infrastructure.

- **Comprehensive and Diverse Communities:** Integrate a mix of housing typologies to accommodate various income levels and household sizes and to foster social inclusivity.

Figure 89: Retail spaces on the ground floor, wide pedestrian pathways and nearby bike infrastructure can help promote vibrant, community-focused environments.

- **Walkability and Connectivity:** The connection to surrounding street networks, trail systems, and pathways should be safe, accessible, and walkable for pedestrians and cyclists.

- **Energy Efficient and Renewable Energy:** At a site design level, developments should aim to reduce their ecological footprint and minimize lifecycle costs. The design and construction of new developments should incorporate best practices and building technology to minimize energy consumption, conserve water, reduce waste and improve air quality.

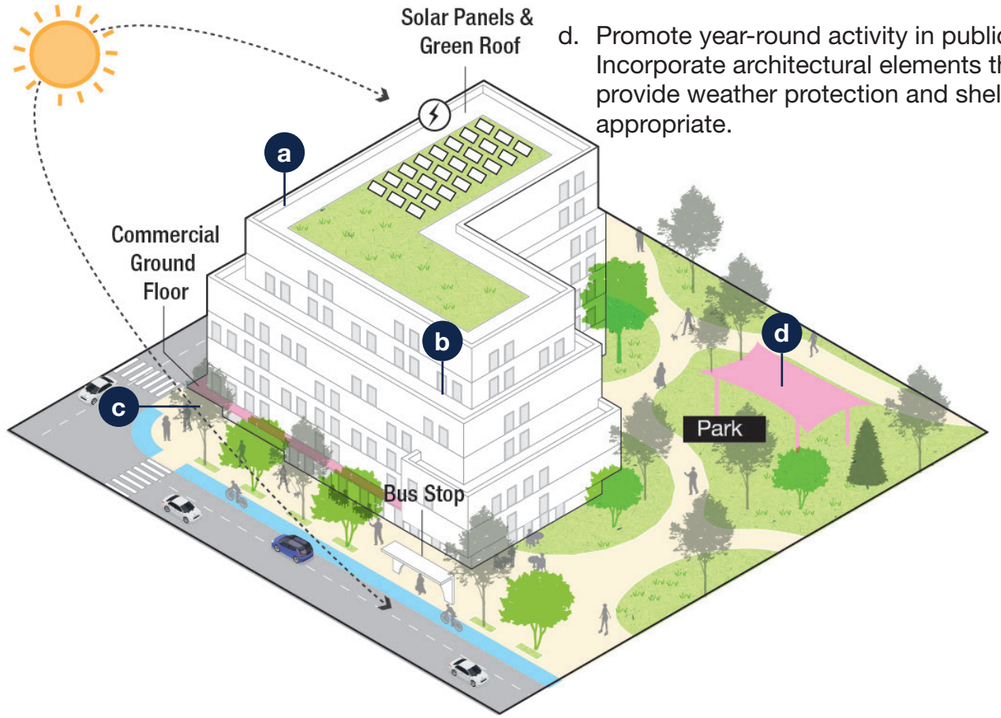


Figure 90: Site design should consider best practices in building orientation, connections to existing trail systems and enhancing adjacent green infrastructure.

Design Guidelines:

a. Buildings should be oriented to optimize the potential for solar energy generation on rooftops and facades to minimize shading from adjacent buildings.

b. Utilize articulations, stepbacks, canopies, arcades, and landscaping to reduce undesirable microclimate effects in the public realm including along streets, and within parks and open spaces. Strategic access to sunlight should be maximized in both public and private spaces.

c. Locate buildings to address the street near the street line, with entrances facing a wide public sidewalk.

d. Promote year-round activity in public spaces. Incorporate architectural elements that provide weather protection and shelter where appropriate.

Safety and Security Guidelines:

e. Clear sight lines should be maintained to allow people to see and be seen. Blind corners, bends, grade changes, partially lit areas, and other elements which may obscure views are discouraged. Site and building design should strive to maximize safety and security, employing best practices in CPTED.

f. Pathways should provide continuous sight lines and should create direct connections from buildings to key areas on and adjacent to sites.

g. Active uses such as residential lobbies, retail uses, and open spaces should be located along the primary street frontage to provide opportunities for informal surveillance. Glazing along the ground floor of these spaces is encouraged to provide increased visibility.

h. Site design should not result in potential areas of entrapment, such as areas that are bounded on most sides by walls, high plantings, or fences.

Figure 91: Clear sight lines promote safety throughout the site.

Landscape and Low-Impact Design Guidelines:

i. Encourage the use of permeable paving and green landscaping throughout the site to minimize the urban heat island effect and to allow for absorption of surface runoff.

j. Landscaping should include native species that are drought and salt tolerant to reduce the need for watering and maintenance.

k. Promote the presence of birds and pollinators with the use of appropriate plant species and by creating key sources of food and habitat.

l. Biodiversity should be supported through a variety of tree and planting species. Perennial plantings that flower at different times of the year can support biodiversity.

m. Support natural green corridors by connecting larger habitat patches within parks. Avoid fragmenting green spaces with large impermeable areas.

n. Ensure that public realm improvements support and seek opportunities to use rainwater as a source of water for all greenery in public spaces.

o. Encourage interactive and educational elements in public realm design and landscape design to engage with the public and raise awareness of the function of rainwater in the urban environment.

p. Wherever possible, impermeable hard surfaced areas (i.e. driveways, laneways, and parking areas) should be minimized and incorporate opportunities for ground water infiltration.

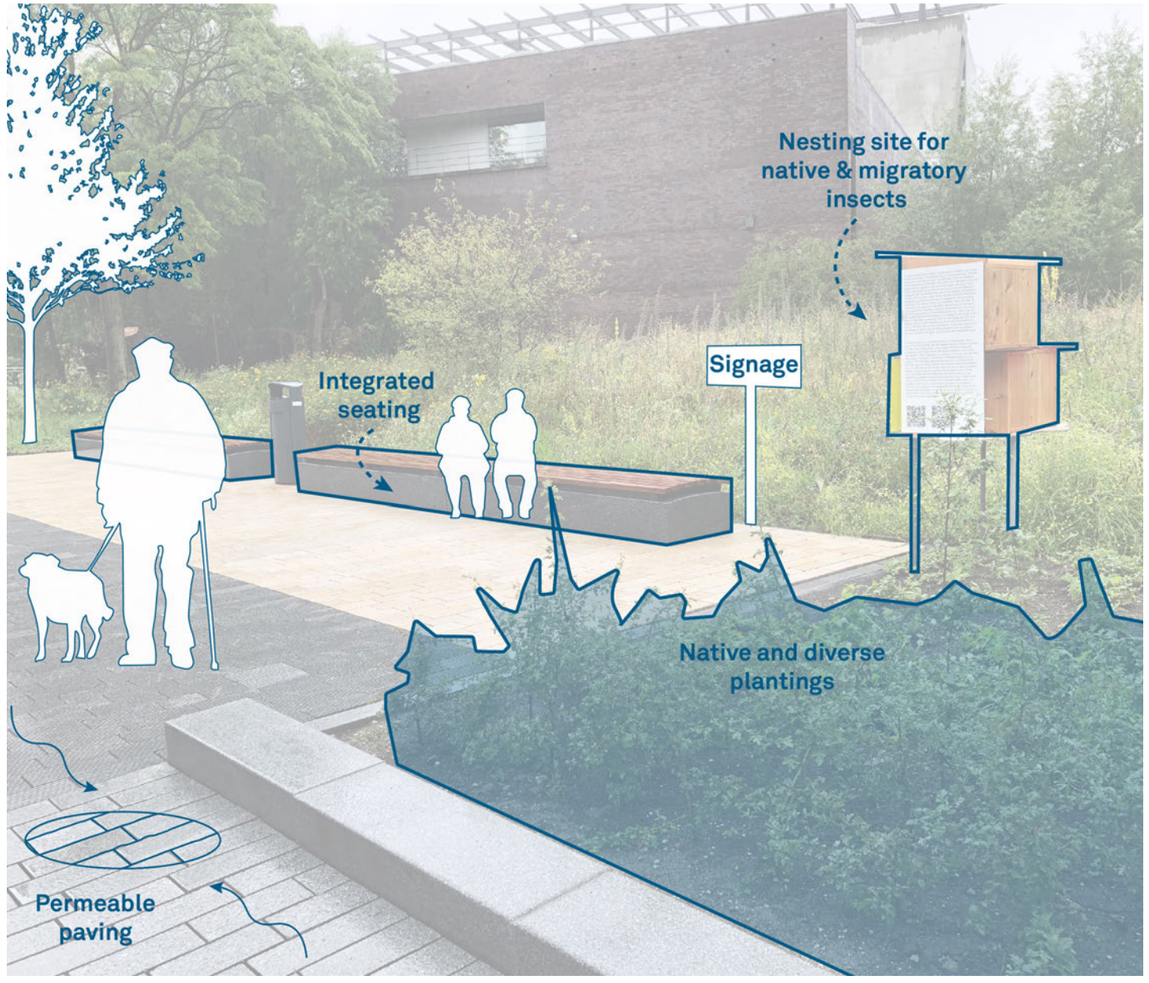


Figure 92: Landscape-led design should include LID measures which promote biodiversity, stormwater management, and well-being.

Figure 93: Boulevard gardens are green infrastructure measures that enhance Niagara's image as a beautiful and vibrant place to live, work, and play.

q. New and existing developments should be designed or retrofitted to conserve water use and manage stormwater on-site through LID techniques such as bioswales, rainwater harvesting systems, infiltration trenches and stormwater management ponds.

r. Stormwater management ponds and swales should contain a variety of native tree, shrub, and wetland plantings to improve biodiversity and aesthetically attractive areas.

s. Rainwater harvesting systems, such as rain barrels or cisterns, should be installed to capture rainwater, reducing the use of potable water for landscape irrigation.

t. Landscape design should contribute to on-site stormwater management and low-impact development, allowing for infiltration of runoff into the ground while reducing demands on municipal stormwater infrastructure.

u. Stormwater must be appropriately managed to minimize water degradation as a result of urban development.

v. Measures that reduce stormwater runoff and thus the need for large stormwater management facilities, or improve water quality, should be integrated within new residential, commercial, and industrial developments.

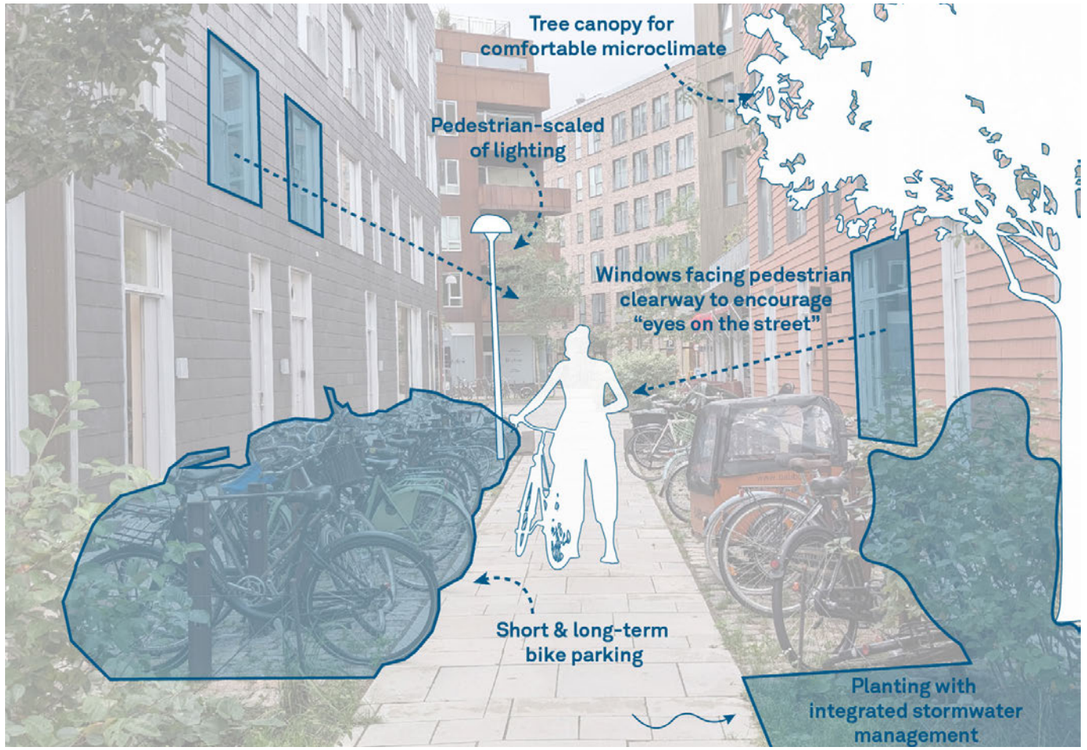


Figure 94: Mid-block connections should contain plantings and permeable pavers where possible to reduce urban heat island effects.

w. Planted areas can be used to filter, detain or infiltrate stormwater. Planted swales should be integrated into site landscaping to slow stormwater flow and to allow sedimentation and infiltration. Trees, shrubs, grasses and ground covers are also used in landscape systems. In poorly drained soils, it is necessary to consider the cost benefits and the maintenance aspects of the proposed green infrastructure measures.

x. Downspouts should divert runoff into landscaped areas whenever feasible. Roof runoff from disconnected downspouts can be directed to gardens, swales, lawns, sand filters, infiltration or flow-through planter boxes.

Stormwater Management Facility Guidelines:

y. While holistic management of stormwater throughout a site is preferred, in some cases stormwater management facilities are required. The facilities will be designed with municipal engineering guidance.

z. Appropriate stormwater management facilities help to mitigate the detrimental impacts of flooding and erosion.

aa. Stormwater management facilities should be integrated as community amenities as a valued component of the open space network. Though access to stormwater management facilities should be managed, the facilities should be visible from and connected to public open spaces or parks.

ab. Stormwater management facilities should be designed to be safe if public access to these facilities is part of the design.

ac. Stormwater management facilities as potential habitat for wildlife should be considered. Designs should incorporate overbank shading, and plantings to deter human access.

ad. When located in proximity to existing Natural Heritage Systems, stormwater management facilities should provide picturesque views and be designed to enhance the environmental and ecological integrity of the surrounding landscape and improve biodiversity.

Figure 95: Natural stormwater ponds provide habitats for many species of birds, animals, insects, and local flora and fauna.

5.2 Infill Development

Sites across the Niagara Region may be redeveloped where appropriate to ensure land is being used efficiently. Intensification goals for municipalities across the Region provide an opportunity to re-evaluate large or medium-sized sites, introduce a mix of uses, create complete communities, and achieve attainable or affordable housing units. Redeveloping these critical sites provides an opportunity to enhance and refine the urban environment.

Best Practices:

- **Elevating the context:** Intensification should enhance the urban environment and provide on-site amenities for new tenants, residents, and the wider community.
- **Planned intensification:** Municipalities should plan and zone for intensification in key areas such as PMTSAs and higher-order transportation corridors. Studies should include built form guidance.
- **Appropriate transition:** Intensification sites should consider adjacent existing and planned context and transition appropriately to adjacent sites while contributing to a meaningful and functional streetscape.

Figure 96: Infill development should enhance the urban environment and provide amenities for new tenants, residents, and the wider community.

Design Guidelines:

a. Infill sites may contain a variety of building scales. Height transitions should be accomplished within the site to the surrounding context.

b. Generally, infill development should match the pre-established 'street wall' setback of adjacent buildings in order to maintain a street wall and maintain appropriate spatial definition.

c. Where no uniform established 'street wall' exists, infill development should be located with a minimum setback from the street so that a relationship between the building and the sidewalk is established.

d. Building additions should reference the building to which they are being added both volumetrically and materially.

e. Mixed-use development should be promoted for infill sites at 'main street' and street commercial areas. Residential dwelling units above street level shops should be encouraged at locations adjacent to main street areas. Mixed-use development contributes to increased street animation, safety, supports transit, and economic vitality.

f. Rear façades should also be upgraded and maintained in much the same way as storefronts, particularly when an opportunity exists to create active retail space, e.g. back-of-lot café, or as part of a larger community improvement plan.

g. While new surface parking should be discouraged, if it is provided, it should be situated at the rear or side of the building to minimize the view of parking areas from the public realm and designed in accordance with Section 5.10.

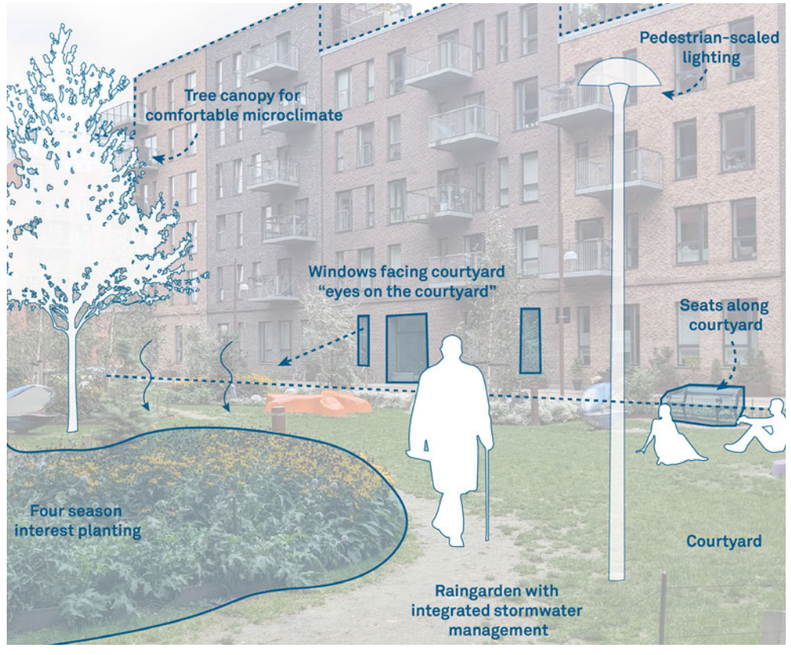


Figure 97: Infill buildings surrounding a courtyard should include access and overlook in design considerations.

Neighbourhood Intensification Guidelines:

h. The form and character of infill development should be in keeping with the general form and character of the planned context.

i. Where no planned context exists, the form and character of infill development should be generally in keeping with the existing development and streetscapes in the surrounding neighbourhood.

j. Infill development should reflect the existing neighbourhood pattern of development with respect to front, rear and side yard setbacks, building heights and the location and treatment of primary entrances, to both the dwelling and the street. Where deviation occurs, the number of units on the lot should increase to provide more housing units for residents.

k. Where there is variation in setbacks, the front yard setback of the new dwelling(s) should be the average of that of adjacent development. Front yard setbacks should be appropriately deep to allow for landscaped front yards that enhance the look and feel of the neighbourhood.

l. Buildings should be oriented to ensure their front entrance is visible from a public street.

m. Infill development should provide fencing, screening and landscaping to maintain the privacy of adjacent rear yards.

n. Accessory dwelling units (ADUs) such as laneway suites and garden suites should be designed with guidance from Section 6.3.

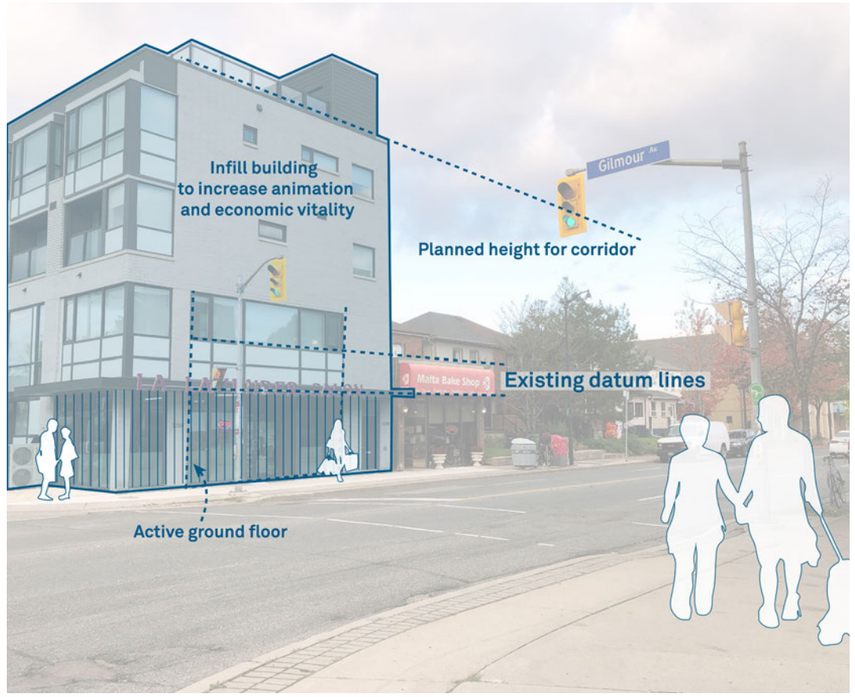


Figure 98: Infill development can increase density while utilizing design measures to complement the existing neighbourhood.

Courtyard Complexes:

o. On deep lot sites where mid-rise buildings are contemplated, townhouse blocks or similar low rise forms may be used to transition to neighbourhoods beyond.

p. Where two or more buildings are proposed for a site, central courtyard areas or open spaces between the two buildings are strongly encouraged to create a unifying design of the development and promote privacy for at grade units

q. Buildings surrounding a central courtyard should provide positive sightlines and access from units to promote use of the courtyard. Ground floor units of multi-unit buildings should have ground-related access to the courtyard. Townhouses, singles, semi-detached houses or ADUs should have access to the courtyard, as well as generous front or side porches overlooking the courtyard space.

r. Central courtyards should provide opportunities for socializing and play. Surface parking should be avoided within courtyard spaces.

s. Where two or more buildings or building components of differing heights are located adjacent to one another or integrated together within one overall development, the required separation distance between the buildings is the greater of the separation distance required for each of the constituent buildings.

t. Infill sites with a variety of buildings should ensure buildings are architecturally distinct yet harmonious through the introduction of architectural unifying elements. Landscape architecture can also be used to knit together sites with multiple buildings.

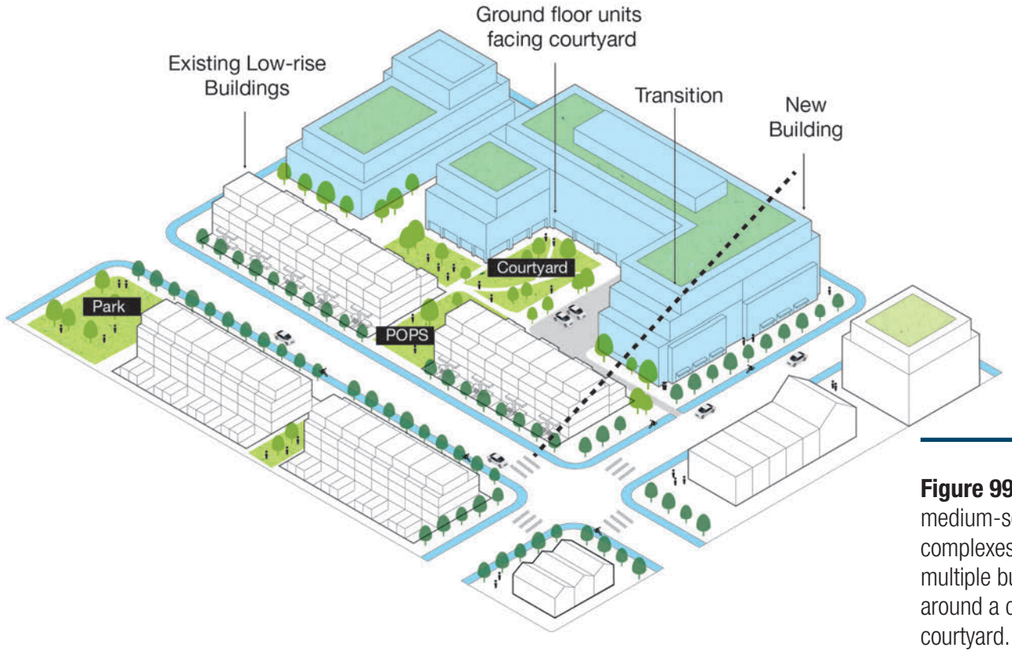


Figure 99: Large or medium-scale courtyard complexes may include multiple buildings arranged around a central amenity courtyard.

Large and Medium Site Intensification Guidelines:

u. Intensification sites should improve and expand the network of sidewalks, paths and trails in the surrounding context. New pathways should be barrier free to promote accessibility.

v. Intensification sites should have access to local transit routes within walking distance for most residents.

w. Intensification on large and medium sites may require changes to the existing road network to improve connectivity and allow traffic to dissipate to local destinations as needed. Changes to the road network should provide connections for vehicular, cyclist, and pedestrian traffic.

x. Infill development should contribute to the community through the provision of high-quality building design, landscape architecture, public amenities and should enhance biodiversity on site.

y. Infill sites should follow principles of transit-oriented development and contain a mix of uses.

z. Where residential infill development is planned, a mix of unit types and sizes should be provided to promote diverse communities and provide attainable and affordable housing options.

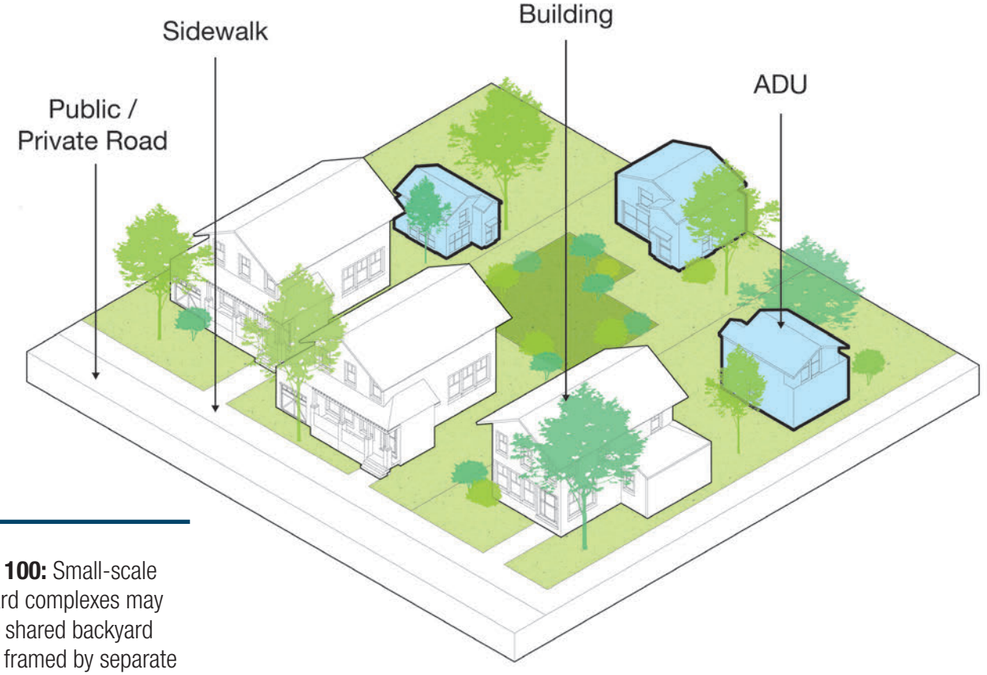


Figure 100: Small-scale courtyard complexes may include shared backyard spaces framed by separate buildings.

aa. Landmark buildings can be arranged and oriented in unique ways so as to provide a visual reference point and element within a landscape.

ab. Infill development should reflect the desirable aspects of the established streetscape character and contribute to the improvement of the streetscape with high-quality building design, landscape design, and significant tree planting.

ac. Developments on corner lots should consider the frontage on both streets and provide transparency between the indoors and outdoors to promote activation and safety within the public realm. Development should avoid blank walls wherever possible.

See Also

- Niagara Region Model Urban Design Guidelines Section 3.7 PMTSAs and Intensification Areas, 3.9 Neighbourhood Structure

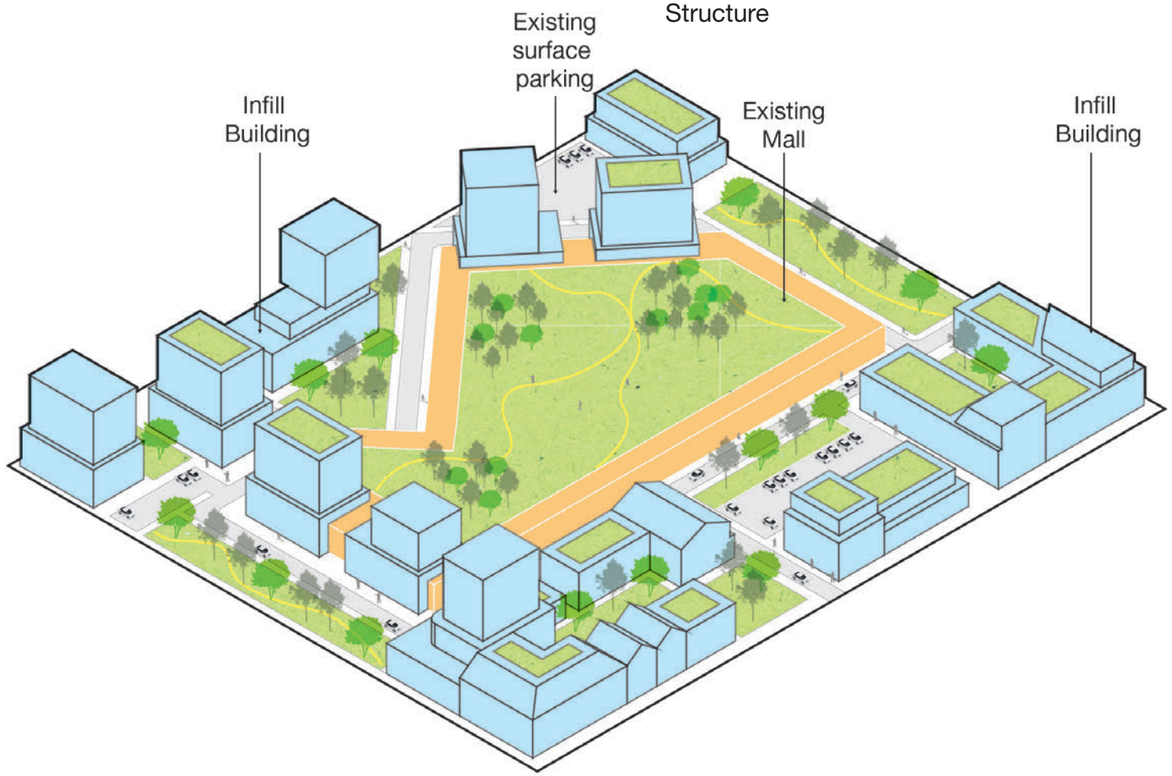


Figure 101: Large sites may be redeveloped in a manner that intensifies the property and improves existing resources on site.

5.3 Building Location and Orientation

Buildings should be located, oriented and articulated to promote privacy and positive microclimates, compact development, pedestrian friendly environments, and sustainability. Buildings should frame abutting streets, open spaces and amenity areas and have a positive interface with the public realm that enhances the character of Niagara's communities. New buildings should consider the existing context, maintain proportionate street wall heights, reflect the surrounding character, include consistent setback patterns where needed and contain appropriate separation from adjacent uses to ensure views and privacy are maintained.

The Building Location and Orientation guidelines are applicable to different building types as well as different forms of development including low-rise to tall buildings. Municipalities are encouraged to create specific building location and orientation guidelines that reflect local goals and character.

Best Practices:

- **Compact Built Form:** Encourage a compact built form to minimize building footprints, make more efficient use of land, and promote walkable neighbourhoods.

- **Pedestrian-Oriented:** Encourage development to incorporate building heights that are proportional to the adjacent street right-of-way width. They should incorporate setbacks and stepbacks to establish a comfortable pedestrian condition at-grade and to accommodate landscaping and amenities that promote socialization.

- **Sustainability:** Ensure buildings are oriented, designed and located to maximize access to natural light on the site and adjacent properties and minimize unfavourable wind and shadow conditions. Buildings should incorporate both passive and active strategies to reduce demand and increase energy efficiency.

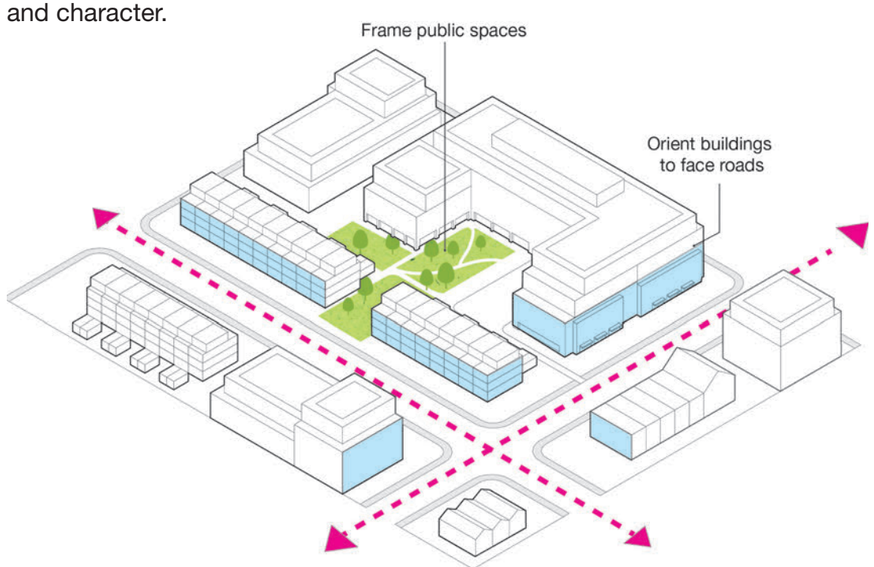


Figure 102: Orient buildings to face roads and frame public spaces. Active building frontages that face the road will encourage safe and animated spaces.

Location and Orientation Guidelines:

a. Buildings should frame street edges, parks, open spaces, natural heritage features and amenity areas to animate the public realm. Primary building entrances should front onto these features and rear lotting should be avoided.

b. Buildings should be placed and oriented to:

- Maintain, protect and create view corridors and vistas.
- Maximize views and privacy for building residents.
- Provide a comfortable microclimate condition at-grade i.e., wind and shadows.
- Improve natural daylighting, livability, and energy efficiency/ solar energy gains.
- Maintain 5 hours of consecutive sunlight on at least one side of the street.

c. On corner sites, buildings should be oriented towards both streets.

d. Building elements greater than 6 storeys in height should be located and oriented towards the south and southeast of the site, minimizing shadow impact on the public realm and surrounding uses.

e. Where a tower is located adjacent to areas of lower-density, appropriate transitions and separation distances should be provided to minimize shadows, view and privacy impacts to the lower-density areas.

f. Buildings should be sited and oriented to reduce the visual impact of parking and loading by enclosing them within the building envelope, away from public view. Where surface parking is provided, it should be located to the rear and side of the buildings.

g. Where possible, rear garages are preferred, reducing the visual dominance of integrated front garages.

Figure 103: The relationship between buildings is a fundamental element of urban design that requires considerable consideration and design. The architecture of building relationships define the nature and usability of spaces, the public realm, create micro-climatic effects, and how people interact with buildings.

5.4 Landscape Design

Sustainable landscape design and development looks at responsible earthwork, stormwater management and landscape design practices that enhance Niagara's ecological health, biodiversity, resilience, and natural heritage. Designing with nature in mind invites beauty and climatic resiliency while minimizing long-term capital and maintenance costs. Niagara should strive to create environments that are restorative, healthy and enhance environmental quality and ecological services. The benefits of high quality landscape design and the contribution to ecological biodiversity and resiliency should be reflected in large mixed use developments and institutional projects.

Best Practices:

Prioritize Green Infrastructure: Integrate green infrastructure elements such as rain gardens, bioswales, and permeable pavements to manage stormwater, reduce runoff, improve water quality and minimize heat island effect.

Biodiversity and Habitat Creation: Landscape design supports local wildlife and reduces water consumption by including a variety of native plant species, habitat types, and pollinator-friendly gardens.

Figure 104: Green infrastructure can enhance the image of a community.

Accessible, Inclusive, and Multi-functional Spaces: Versatile and flexible outdoor spaces that can serve multiple purposes such as recreation, social gatherings, and community events.

Sustainable Materials: Encourage the use of locally sourced and sustainable materials for pathways, seating, and other landscape features to reduce environmental impacts, encourage local stewardship and support local businesses.

General Guidelines:

a. Use landscape design and planting to create inviting open spaces and frontages that provide shade, wind protection, and comfortable environments.

b. Plan for succession planting and plant tree species of diverse ages to ensure the continuous renewal of tree cover. Successive understory and ground cover vegetation should contribute to four-season interest and biodiversity.

c. Landscapes should be designed with long-term maintenance in mind. Clear maintenance plans ensure that landscapes remain attractive and functional over time.

Figure 105: Landscape plantings can be used to manage access to sloped or ecologically sensitive areas. Permeable pavers add visual interest and assist in stormwater management.

d. Trees and shrubs provide important and critical hydrological functions in the landscape as they reduce the rate of erosion by protecting the soil from rain impacts and hold soil in place with their roots. Consider increased native plant density and diversity through the planting of understory canopy and ground cover.

e. Larger growing shade trees should be planted along street edges. Street trees are generally spaced 6.0 to 9.0 metres apart.

f. Landscaping should consist of native plantings and trees to provide support for pollinators and birds.

g. Consider a range of hard and soft landscaping treatments that create visual interest and provide a sense of enclosure at a human scale. Landscaped open space should be designed with a diversity of colours, textures and plant materials and provide a visually interesting environment.

h. Landscaping should be used as buffers for wind, visual screening, privacy, and shade, where appropriate. Planting and hedges should not inhibit the safety or visibility of pedestrians, cyclists, or motorists.

i. Plantings and trees should be drought-resistant and salt-tolerant when located adjacent to pathways, roads, and parking areas.

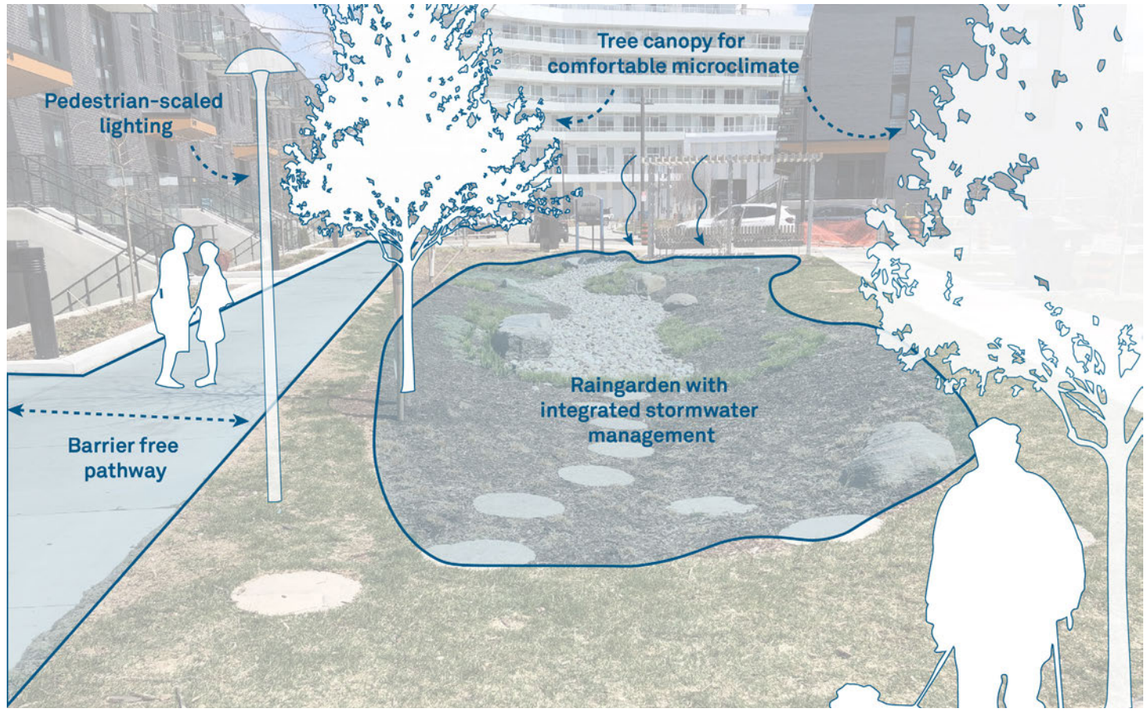


Figure 106: Green infrastructure can be incorporated in landscape design to reduce stormwater run off and create intriguing places with ecological benefits that are important to Niagara.

j. Wherever possible, preserve existing mature and healthy trees that are 300 mm in diameter at breast height or larger. Where preservation is not possible, trees should be replaced at a 1:3 ratio.

k. Provide necessary conditions for plants to reach full maturity and thrive. Ensure that adequate space, soil requirements, water, drainage, and sun requirements are met.

l. A single tree should have access to at least 30.0 cubic metres of high-quality soil, whereas groups of two or more should have at least 15.0 cubic metres high-quality soil per tree.

m. The use of soil cells is highly recommended for street trees and trees located within other paved areas to avoid soil compaction.

n. In instances where landscaped open space is located above an underground parking structure, ensure adequate soil volumes are provided for healthy long-term tree growth.

o. Protect existing undisturbed topsoil and subsoil. Minimize the physical, chemical and biological disturbance of soil as it can remove the biological integrity of soil ecosystems. When feasible, enhance degraded and disturbed soils.

p. Existing significant trees, tree stands, and vegetation should be protected and incorporated into site design and landscaping.

q. Landscape design should incorporate a wide range of strategies to minimize water consumption, e.g. native species, use of mulches and compost, alternatives to grass, rainwater collection systems.

r. Planting beds should be at least 2.5 metres wide to create healthy and sustainable landscapes.

Figure 107: Different scales of planting can be used to create a sense of enclosure and buffer open spaces from adjacent buildings.
Figure 108: Shrubs and plantings can be used to delineate pathways in landscaped areas.

5.5 Interface with Cultural Heritage Properties

Cultural heritage resources include buildings, structures, features, sites, and landscapes of historical, architectural, archaeological, and/or scenic value, and are valued elements of Niagara's communities. The Region of Niagara's cultural heritage properties enhance the look and feel of the neighbourhoods and help to maintain the built heritage of the area. Heritage properties are protected under the Ontario Heritage Act and shall be conserved in a manner consistent with the Provincial Policy Statement, which requires that developments and site alterations adjacent to protected heritage properties are not permitted except where heritage attributes are conserved.

Design Guidelines:

a. Conservation of heritage properties should be guided by the Standards and Guidelines for the Conservation of Historic Places in Canada.

b. Developments within designated Heritage Conservation District areas or designated heritage properties should adhere to policies and standards within the relevant Heritage Conservation District plan.

c. The adaptive reuse of existing cultural heritage properties is encouraged, and such projects should respect and enhance identified heritage attributes.

Figure 109: Niagara's heritage properties instill a sense of place and should be conserved.

d. New development adjacent to designated heritage properties should be compatible in design and massing to the identified heritage resources. Compatibility can be achieved with the following considerations:

- Comparable building or volume height and width ratios.
- Providing a street wall and base building height that is compatible with the existing heritage resources.
- Maintaining comparable floor to ceiling heights and fenestration patterns.
- Setbacks and stepbacks that create a respectful transition to heritage resources and create harmony with identified architectural features, datum lines, façade heights, setbacks, and rhythms of heritage buildings.
- Using high-quality materials and techniques to harmonize with but do not mimic the texture, colour and scale of identified heritage resources.
- Maintaining views of cultural heritage attributes from the public realm and within the property.

Figure 110: Additions should maintain a respectful relationship with heritage structures through the use of setbacks, the matching of datum lines, and visual breaks to ensure the dimensionality of the heritage building is legible (History Museum).

e. New developments adjacent to heritage properties or resources should ensure that parking areas, accessory buildings, garages and utilities are sited away from heritage structures and resources.

f. Landscape treatments should be used to mitigate adverse impacts of new development on heritage properties.

g. Historic views of the heritage property should be maintained. Every effort should be made to ensure that historic landscaped areas and their distinguishing features such as front yards, tree plantings, hedges, and fences, are conserved.

Additions to Heritage Building Guidelines:

h. Additions to heritage buildings should be located at the rear or side of the building and be limited in scale and size to ensure a respectful and appropriate relationship with the heritage building and neighbouring properties.

i. Rear additions should not obscure the existing roof line and stepped back at the sides to minimize public view of the addition.

j. Multi-storey additions should be set back from the existing front elevation of the heritage building and its existing roof line to limit its visual impact.

Figure 111: Ensure appropriate transitions in height, scale, proportion, form and spatial arrangement to surrounding developments and adjacent properties.

k. Additions should be differentiated from and harmonious with existing heritage structures.

l. Contemporary additions are appropriate when they do not negatively impact architectural, historical or cultural resources and when the design is compatible with the massing, ratio of solids to voids, colours, materials, and character of the property, neighbourhood, and environment. Design studies of the surrounding context and the heritage property are recommended.

m. Additions should not impact the integrity of the existing heritage building should the addition be removed in the future.

Key References:

- Standards and Guidelines for the Conservation of Historic Places in Canada

Figure 112: Heritage building additions should consider distinct but complementary materials.

5.6 Outdoor Amenity Spaces

Common outdoor amenity spaces include rooftop, at-grade, and other exterior spaces which can be private, semi-private, or public spaces. These outdoor amenity areas should provide accessible, comfortable, and safe common areas for residents and guests. Outdoor amenity spaces are also important community gathering spaces and are especially important in medium and high-density residential areas. The programming of common amenity spaces should consider the existing and planned context of the site, ensuring that residents have access to green space.

Best Practices:

- **Microclimate and Comfort:** Providing adequate building elements and landscaping to manage sun, wind, and precipitation is important for outdoor amenity spaces. This ensures that the space is comfortable for residents to stay and use throughout the year.

- **Active and Passive Programming:** Consider programming in relation to the context, including the building unit mix, demographics, adjacent uses, and desired public amenities. Programming provided should be a mix of passive and active elements.

Figure 113: Amenity spaces should include planting designs that mitigate wind impacts and enhance the look and feeling of the space.

- **Safety and Privacy:** Outdoor amenity spaces should be comfortable and safe. They should be open and have good visibility, allow views from interior common spaces of the building, adjacent public spaces, and sidewalks, and remain well-lit.

- **Accessibility:** Outdoor amenity spaces should be accessible and attractive to residents of all abilities and ages. They should also be well-connected to the building, other common spaces on the site via their prominent locations.

Outdoor Amenity Guidelines:

a. Outdoor amenity space should be provided for mixed-use and residential developments.

b. Ensure that there is an appropriate mix of access to sunlight and well-shaded areas. Structural and planted elements should be provided to mitigate wind exposure.

c. Barrier free access to and from the amenity space should be provided.

d. Consider using landscaping and appropriate selection of plants to divide programmatic areas to encourage multiple groups of users at one time and provide additional sun and wind protection.

e. Amenity areas should be designed and located in relation to the context, including the building type, unit mix, and adjacent land uses and other public amenities.

Figure 114: Shade structures should be present in amenity spaces to promote use during the summer months.
Figure 115: Barbecue areas are recommended to allow residents and visitors places to socialize and enjoy.

f. Amenity areas should encourage resting, social gathering, and play. This may include active programming, such as a children's play area, community gardens, or barbecues. This may also include passive programming, such as seating and pathways. Consider the inclusion of culturally-responsive spaces.

g. Outdoor amenity spaces should be designed and maintained to support year-round use.

h. Indoor shared common areas should have direct visual connection and/or physical access to outdoor amenity areas.

i. Back of house building structures such as mechanical equipment and above-ground utility boxes should not be placed in amenity areas. Amenity areas should also be located away from building parking and loading areas.

j. To facilitate safety, amenity spaces should be open spaces that are visible from inside the building and other adjacent outdoor spaces and provided with adequate lighting.

Figure 116: Amenity spaces can accommodate a number of programmed elements, including seating spaces, gardens, and play spaces.

k. Entrances and paths to amenity spaces should be located intuitively, with good access for all residents. Ideally, the outdoor amenity space should be connected to an adjacent indoor amenity space or lobby to create a larger extension of the indoor space and should not be located in an isolated area.

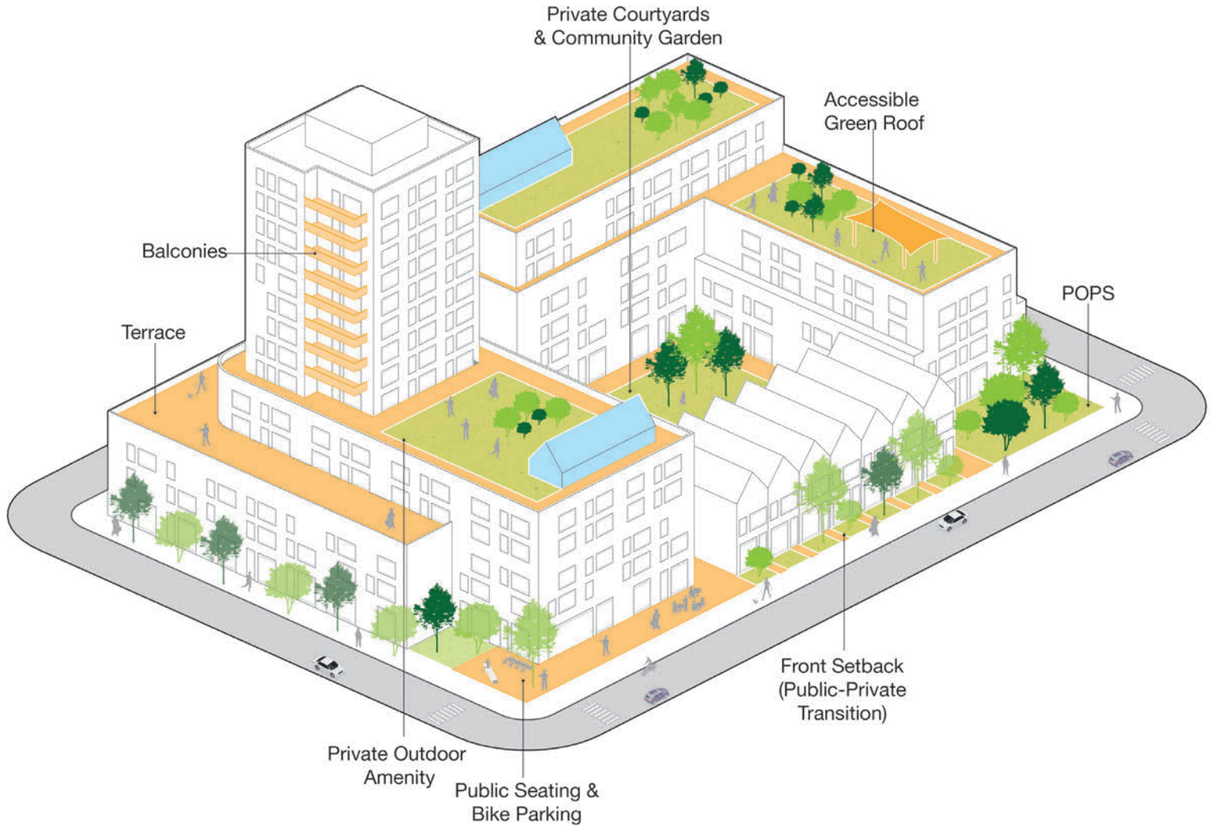


Figure 117: Outdoor amenity spaces can be sited throughout a new development and should be designed in a manner that maximizes the enjoyment of the space by residents and visitors.

5.7 Micro-Climate, Sunlight, Views and Privacy

Microclimates are impacted by the urban landscape, the built environment factors such as the density, arrangement, height, location and materiality of buildings. Well-designed and high-quality buildings and public spaces involve the understanding of wind, sunlight, temperature and humidity. Human health is positively impacted through the ability to see the movement of the sun throughout each day.

To ensure comfort at the pedestrian level, architectural, landscape and urban design measures, can help mitigate negative micro-climate impacts and preserve sunlight, views and privacy, new development should implement design measures such as, stepbacks, floor plate control, building location and orientation, and separation distances.

Best Practices:

- **Climate Responsive Design:** Encourage climate-resilient design to help in mitigate extreme temperature fluctuations, flooding, severe weather changes, and changes in precipitation and wind patterns.
- **All Season Design:** Create environments that respond effectively to varying weather conditions, notable key areas to consider include, energy efficiency, health and well-being, creation of versatile spaces, and year-round inclusive and accessible urban spaces.
- **Safety and Accessibility:** Employ CPTED principles to create safe and healthy communities. Strategies include increasing visual permeability of areas, creating well-lit and active public spaces.

Figure 118: Tree planting and shade structures can offer weather protection during the warmer months, creating enjoyable microclimates.

Design Guidelines:

a. Orient buildings and outdoor spaces, to maximize sun exposure and penetration in winter and shade in the summer. Avoid adverse microclimatic effects related to wind.

b. Incorporate tree planting and outdoor shade structures for weather protection during the warmer months.

c. Integrate weather protection such as awnings, canopies, cantilevers and overhangs along buildings, particularly at key entrances. Doors flush to the wall without weather protection are discouraged. Consider providing weather protection along key exterior paths.

d. Incorporate green infrastructure and green roofs and walls to cool the air through evapotranspiration, provide shade, and improve air quality.

e. Minimize paved surfaces, using permeable materials, and increasing the amount of landscaped surface. This will enhance the potential for evapotranspiration and improve stormwater management.

f. Ensure that winter considerations are considered in the design of buildings and public spaces. Provide design mitigation for falling ice and snow.

g. Refer to Section 6.0 and 7.0 for additional guidelines pertaining to specific building typologies and uses.

Figure 119: Green walls and trees can limit urban heat island effects and enhance the image of spaces and places in Niagara.

Wind Mitigation Guidelines:

h. New development applications should be supported by Pedestrian Level Wind Studies at the discretion of the local area municipality.

i. Mixed use urban centres, commercial main streets, and parks and open spaces should provide wind conditions that are comfortable for sitting or standing.

j. Consider potential impacts of proposed development on local microclimates early in the planning and design process to allow for sufficient wind control and mitigation strategies which may significantly impact site and building designs.

k. Taller buildings should provide horizontal structural breaks, such as podiums, to intercept and disperse down drafts above the pedestrian realm. Canopies above building entrances and walkways are recommended to further reduce down drafts.

l. Shorter buildings upwind of taller buildings can trap and speed down drafts. Gradual height transitions can help to mitigate wind issues.

m. Ground floor building design should consider the potential for pedestrian-level wind and incorporate design features and plantings as appropriate.

n. Avoid site designs that can create wind tunnel effects, such as two taller buildings situated side by side where wind flows, or the cornering effect, where tall buildings meet open spaces without mitigation measures.

o. Buildings should be well articulated, incorporate stepbacks and recesses, include canopies and awnings and be well landscaping to reduce wind effects at the pedestrian level.

p. Wind screens, trellises, furnishings, and tree planting can be used to further mitigate wind impacts in open spaces. These efforts should be complemented by built forms that have mitigated wind impacts.

q. Consider dominant winter winds and the potential for snow infiltration, buildup, or falling snow and ice when locating building entrances.

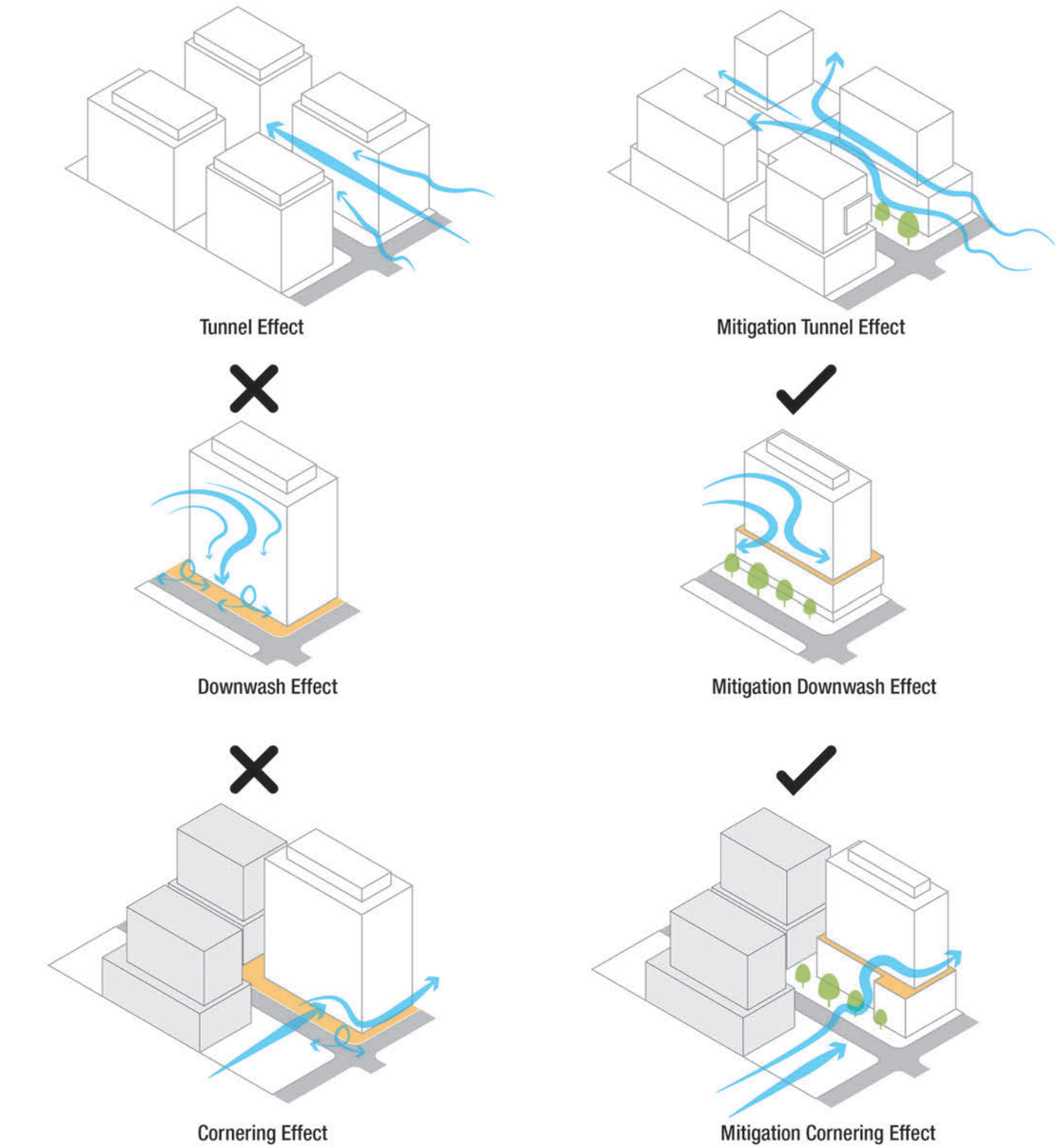


Figure 120: The design and siting of buildings within a site and across blocks can positively or negatively impact wind speeds.

Figure 121: New development should cast no net-new shadow on playgrounds (Lake Wilcox, Tom Ridout & Brook McIlroy)

Sun and Shadow Guidelines:

r. Development applications should include a Sun/Shadow Study as part of a Zoning By-law Amendment, Official Plan Amendment and Site Plan Control application for developments over 5-storeys or in sensitive areas that considers streets and open spaces at the ground level.

s. Minimize shadows cast on adjacent public spaces and sidewalks. Maintain a minimum of 5 hours of consecutive sunlight on the sidewalk and more than 50% of any public open space averaged over the course of the day on the fall equinox.

Sky Views and Privacy Guidelines:

t. Screening should be incorporated to provide a sense of privacy between the public and private individual amenities. Landscape buffers should be considered when practical, and could include hedges, bushes, fencing, and other plantings.

u. Planting and landscape buffers should not inhibit the safety or visibility of pedestrians, cyclists, or motorists.

v. Rooftop amenity areas should be designed to be compatible with adjacent properties and maintain privacy for adjacent buildings.

w. Consider privacy when designing all above-grade amenity areas including balconies, terraces, and pet relief spaces.

x. Buildings should include high quality glazing at the ground level, particularly along public facing frontages to encourage 'eyes on the street'. Additional safety measures and CPTED guidelines should be considered for ground-oriented units.

Relevant Policy:

- Niagara Region Pedestrian Level Wind Study Terms of Reference Guide (2022)

Figure 122: Decorative shade structures can enhance a sense of place while promoting its use in warmer weather.
Figure 123: Niagara's shade structures encourage use of public spaces (Bay Beach Ft Erie)

5.8 Privately-Owned Publicly Accessible Spaces

Privately-owned publicly-accessible spaces (POPS) complement public parks and open spaces in a community. They are not designated as public park lands but can provide places for social gathering, placemaking and green infrastructure, while connecting and extending the public realm. POPS are maintained by private landowners and are openly accessible to the community. POPS are not a substitute for public park investments by communities.

Best Practices:

- **Connectivity with the Surrounding Public Realm:** POPS are part of the overall open space network. They should provide connections between existing open spaces and fill in gaps where needed.
- **Character and Sense of Place:** Like public parks, POPS are an important part of the outdoor public realm and contribute to a sense of place. They should provide value to residents and visitors, and complement the surrounding public realm.
- **Legibility and Accessibility:** POPS can come in many different forms, with varying edge conditions that should create intentional interfaces with the adjacent buildings, open spaces, and sidewalks. They should be welcoming, physically accessible and clearly visible from streets and public spaces.

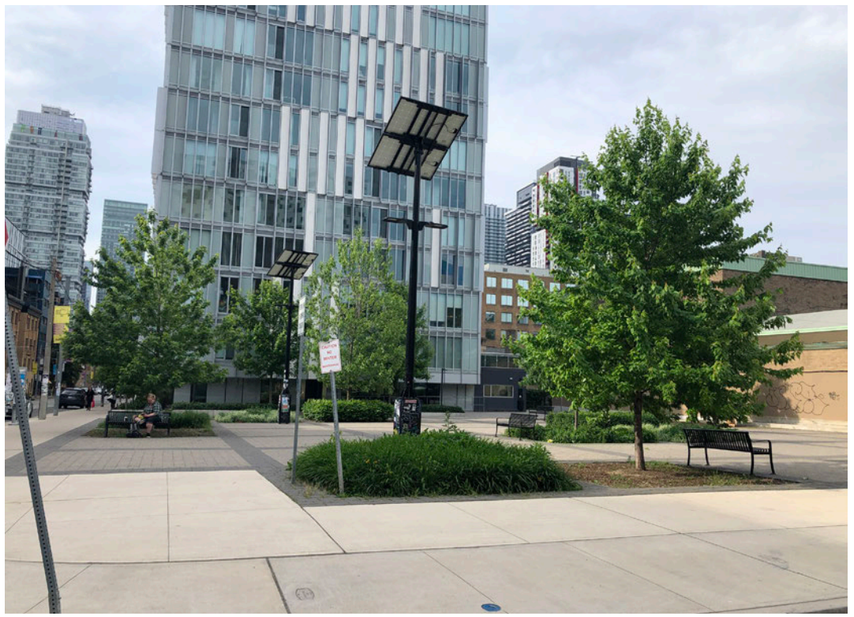


Figure 124: POPS should be welcoming and accessible from the public realm.

Design Guidelines:

a. Physical access, clear visibility and adequate signage should be provided to indicate POPS are open to the public.

b. Transitions between public space and the POPS should be seamless, without major material or grade changes that may indicate the space is private or create barriers to accessibility.

c. For public safety and the maintenance of views, landscaping and other elements should not block sightlines through the space. Ensure full visibility of the open space.

d. Where possible, connect POPS with open spaces such as parks, plazas, trails and other pedestrian connections. Use mid-block connections to connect POPS with nearby public spaces.

e. Locations and programming for POPS should be strategic and intentionally designed. Consider the context and needs of the place.

f. Materials, furnishings, landscaping should be high-quality and durable.

g. Consider pedestrian comfort in the design of POPS. Built structures, landscaping and location of POPS should provide appropriate protection from sun and wind. Refer to Section 5.7 of this document for further guidance.

h. Provide a balance of soft and hard landscaping.

i. Provide amenities and features such as seating, tables, shade, and lighting, bike parking, or public art, which makes the space purposeful, inviting, exhibiting a sense of place.

Figure 125: POPS can include seating and planting features to encourage socializing.

5.9 Pedestrian and Cycling Connections and Site Furnishings

Pedestrian and cycling connections contribute to complete streets and balance the needs and safety of all people. These connections create an active transportation network, supporting healthy communities and reducing vehicle use. A well-connected site also increases accessibility to transit and places of work, learning, and play. Pedestrian connections include sidewalks, pathways, and mid-block connections, while cycling connections include cycling facilities, and multi-use trails.

Site furnishings that are supportive of these modes of transportation can help contribute to a walkable and bikeable community that feels safe and accessible. Complementing site furnishing can delineate spaces and uses, contribute to the character and attractiveness of the street, and provide necessary infrastructure for walking and cycling.

Best Practices:

- **Connect to Other Networks:** Pedestrian and cycling connections should be implemented as part of a larger inter-connected system that links to public transit networks and trail systems, connects the community within the site, and provides accessibility to areas outside of the site. Where there are linkages to other transportation networks, provide appropriate site furnishings to make the transition convenient.

- **Create Continuous Routes:** Sites and blocks should be designed to emphasize connections and permeability, to allow for walkability. Prioritize continuous routes by designing blocks to discourage dead ends while encouraging mid-block connections and other pedestrian pathways that break up an uninterrupted block.

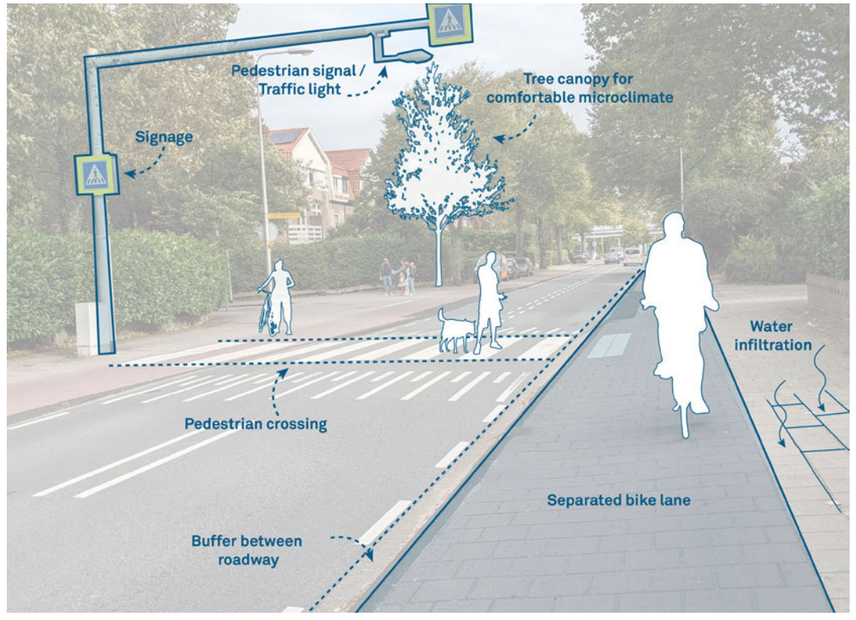


Figure 126: Separated bicycle lanes are recommended to promote safe cycling access throughout the Region.

- **Ensure Legibility and Safety:** Complete streets will balance many needs and support multi-modal transportation. Pedestrian and cycling pathways should be designed with clear distinctions between uses, ensuring safety and accessibility.

- **Durable and High-Quality Site Furnishings:** Site furnishings should complement the cycling and pedestrian connections and support their functions. They can act as buffers or boundaries, contribute to comfortable spaces for pedestrians or cyclists to pause and rest, add to the attractiveness of the street, and provide necessary cycling and walking infrastructure.

Circulation Design Guidelines:

a. Sidewalks should connect directly to transit shelters to encourage active transit use and ensure safety and convenience.

b. Provide bicycle parking at transit stops, community buildings, schools, and walking trail heads to create convenient transitions between networks and encourage connectivity.

c. Prioritize continuous routes through the site and use grid patterns that promote permeability and discourage dead ends, cul-de-sacs, and crescents, where possible. Utilize mid-block connections, pedestrian paths, and crosswalks to connect sidewalks.

Figure 127: Multi-use trails in Niagara should connect users to institutions, landmarks, and destinations in a seamless manner.

d. Logical pedestrian connections should be designed between main entrances buildings and transit facilities, and public sidewalks.

e. Minimize distance and maximize weather protection at pedestrian pathways between building entrances and transit stops.

f. Provide pedestrian crosswalks and circulation routes for buildings and amenities (such as community spaces, schools and recreation centres, and retail shops) and where high levels of walking traffic are anticipated.

g. Provide curb cuts at crossings to ensure accessibility for mobility device and stroller usage.

h. Pedestrian walkways and cycling paths should be both physically and visually separated from vehicular traffic. Separated bicycle tracks or lanes are strongly encouraged over shared streets.

i. At high-conflict areas such as pedestrian crossings and transit stops, use pavement markings, signage, and hard surface materials to highlight pedestrian, transit user, or cycling allotted areas to minimize conflicts.

j. Design pedestrian crossings with safety measures such as bump outs, bollards, or medians designed to slow vehicular traffic.

k. Provide tactile or auditory indicators at key crossings, along routes, and at potential conflict points.

l. Provide wayfinding signage at key areas to support site legibility and circulation.

Site Furnishing Guidelines:

m. Street furnishings should be developed within an overall thematic concept and should provide a consistent and unified streetscape appearance. Preference should be given to durable and low-maintenance materials.

n. Street furnishings should be placed in a coordinated manner that does not obstruct pedestrian circulation on sidewalks, and vehicular circulation to driveways, parking, loading and service areas.

o. Seating and waste receptacles should be provided at all transit shelters and at ‘gateway’ and arterial and collector street intersections, where significant pedestrian activity is expected.

Figure 128: Site furnishing can be integrated into the landscape design of spaces to create unique elements and placemaking.

p. Placement of furnishings should be strategic and intentional. Complementary furnishings like seating, lighting, and garbage receptacles should be clustered together. Seating should be coordinated to receive shade and shelter from tree planting.

q. Short term bike parking should be provided in a location that is visible and reasonably close to the entrance of a building or transit shelter or station it connects with. Consider weather protected parking to encourage all-weather use.

Key Policy Documents:

- Niagara Region Transportation Master Plan (2017)
- Niagara Region Complete Streets Design Manual (Draft 2023)
- Niagara Region Bikeways Master Plan (2005)
- Strategic Cycling Network Development Technical Paper (2017)

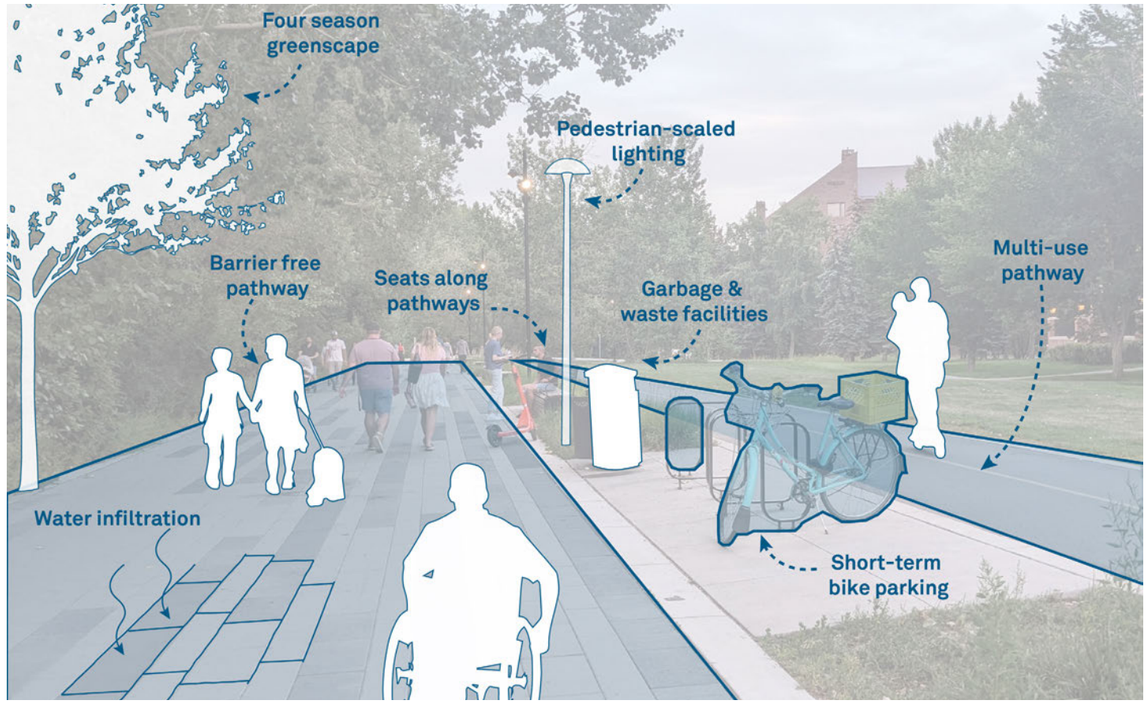


Figure 129: Site furnishings should be consolidated where possible to limit disruptions to planting areas or pedestrian clearways.

5.10 Driveways and Parking

Driveways and parking are highly functional spaces. They should be designed to accommodate safe environments as well as the functional, informal and social needs of residents and visitors.

Best Practices:

- **Efficiency:** Parking and driveways should be designed for anticipated usage. Where possible, parking minimums should be low to support emissions reduction and the affordability and attainability of housing. Underground structured parking is best practice on large and medium sites.
- **Safety:** Careful consideration of entrance and exit locations and design, site lighting, and visibility is encouraged.
- **Sustainability:** Design approaches and materiality can improve sustainability outcomes of parking and driveways.

Figure 130: Green roofs on parking garages are recommended to promote sustainability.

Driveway Guidelines:

a. The number and size of curb cuts should be minimized along a block or site to reduce potential conflict points between vehicles, pedestrians, and cyclists.

b. Provide a continuous sidewalk across driveway entrances wherever possible.

c. Driveway widths of low-rise grade related residential forms should be limited to the width of the garage. Where there is no garage, the minimum width should be 3.0m and the maximum width 6.0m. The minimum length of a driveway should be 6.0m within the private realm.

d. Driveway space located between a house and adjacent road should be limited to the width required for access to a garage or other required parking spaces. Permeable surfaces are encouraged for driveway paving.

e. Corner lots located at the intersection of major and minor roadways should generally have driveway access from the minor road.

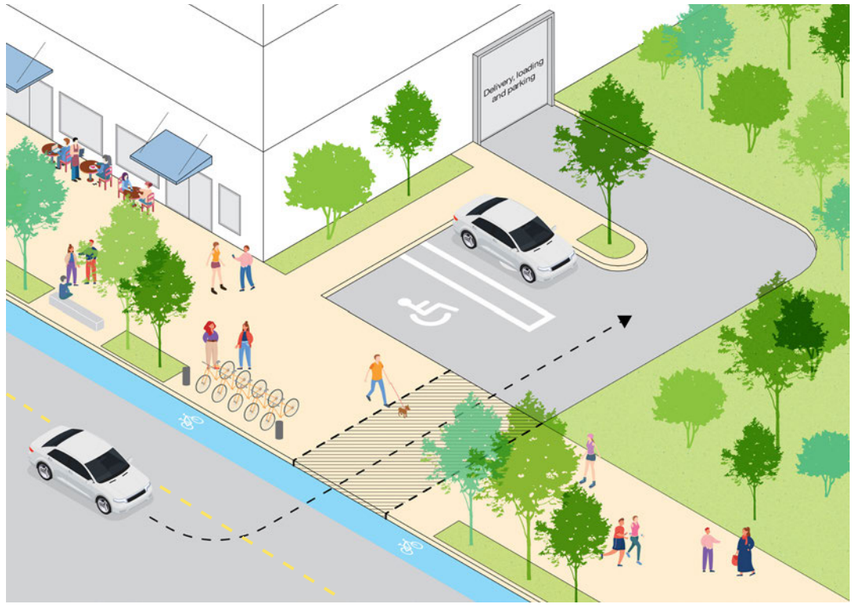


Figure 131: Arrange vehicular circulation, arrival and drop-off zones to prioritize public spaces. Limit the number of driveways that cross sidewalks and preserve pedestrian priority.

Surface Parking Lot Guidelines:

f. Shared parking lots can minimize the amount of parking required for commercial and residential uses and should be utilized where surface parking is provided.

g. Internal vehicular routes within parking lots should be clearly defined by raised and curbed landscape islands planted with trees and low level vegetation. Internal drive aisles should be a minimum 6.0m wide. Parking bay dimensions should comply with municipal standards.

h. Where depressed landscaped islands are provided to support stormwater management, tall plantings and edge plantings should be established to increase visibility. Parking stops or a gravel buffer may be desired.

i. Parking aisles should not exceed 30 contiguous spaces in length and should have a consistent design angle perpendicular to primary building entrances.

j. Surface parking areas may be lowered by 0.5m from the adjacent street grade to reduce visual prominence.

k. Appropriate lighting levels and consistency of coverage should be provided in parking areas to assist both pedestrian and vehicular circulation. The height and intensity of light standards should be sensitive to adjacent land uses. Downcast lighting should be used to minimize light pollution.

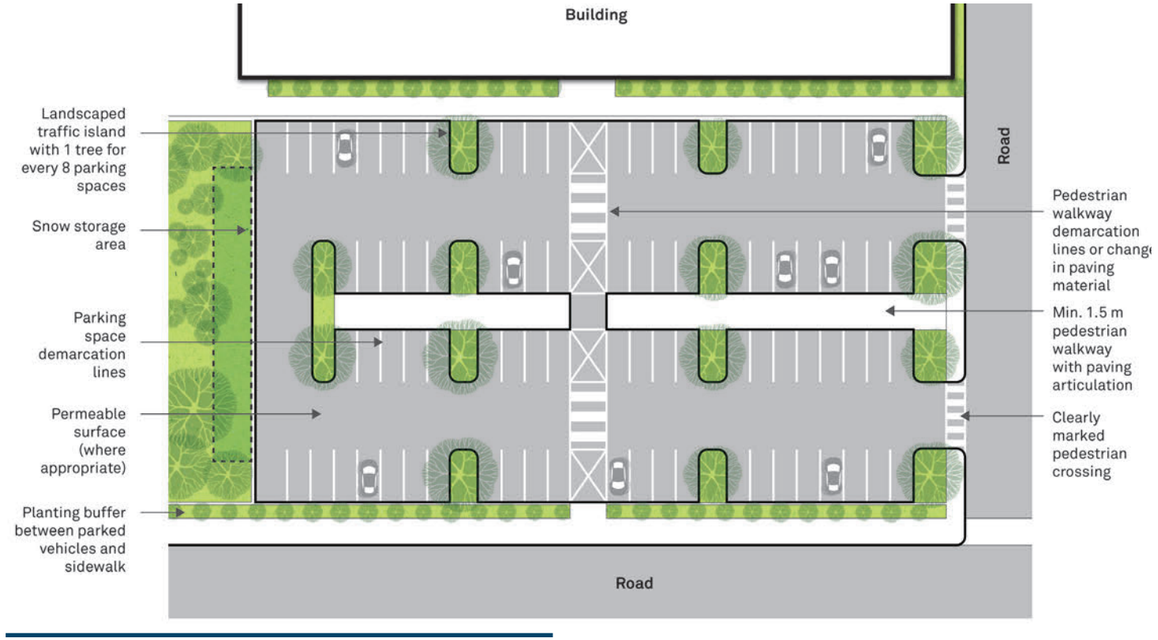


Figure 132: Parking courts can introduce plantings, including trees, in a manner that reduces stormwater run off and urban heat island effect.

l. Accessible parking spaces should be located nearest to building entrances and be clearly identified by signs or markings. Routes between accessible parking spaces and nearby walkways should not cross the drive aisle.

m. Electric vehicle charging equipment should be provided near building entrances to promote visibility.

- Surface parking lots should be framed by landscape buffers that screen storage and utility areas and minimize the heat island effect through perimeter tree planting every 6.0 metres.

Figure 133: Surface parking lots can introduce pavers to increase porosity and reduce stormwater runoff.

n. To ensure opportunities for surveillance from adjacent areas, perimeter hedge and shrub screening should not exceed 1.0m in height.

o. Selection of plant materials should consider the year-round appearance, seasonal variety, hardiness, and resistance to salt and urban conditions.

p. Internal landscaping elements should define visually and functionally smaller parking 'courts' and reduce the overall impact of surface parking areas.

q. Where possible, internal landscaping should incorporate existing vegetation and significant tree planting.

r. Landscaped islands should be located at regular intervals internal to surface parking lots to provide visual relief, stormwater management and limit paved surfaces.

s. Landscaped islands should have a minimum width of 2.5 metres and include trees and bioswale trenches with curbs that allow stormwater to infiltrate.

t. Landscaped islands should be provided at the mid point of the parking aisle, and/or every 12 parking bays, whichever is greater.

u. Parking spaces closest to the public realm should be arranged to ensure 1 car length to wait and not block sidewalks and cycling facilities on the street.

Structured Parking Guidelines:

v. Structured parking lots may be above or below grade at the discretion of municipalities. Below-grade parking is recommended wherever it is geotechnically feasible.

w. Electric vehicle charging equipment should be provided in convenient locations within parking structures.

x. Vehicular ramps for underground or structured parking should not exceed 40% of the street frontage.

y. Locate parking egress away from parks and open spaces or intersections.

z. Parking access should be provided from a lane or side street wherever possible.

aa. Where structured parking fronts onto a public street or space, commercial retail units or other community uses should be provided to line parking garage with activated uses at-grade.

Figure 134: Parking lot areas should be buffered from the street by landscaped elements to promote stormwater infiltration and surface cooling.

ab. Parking within an above-grade structure should be screened from view at sidewalk level and second storey levels, and the street-level wall should be enhanced by architectural detailing, artwork, landscaping, or similar treatment that will add visual interest and integrate well with the surrounding built form.

ac. Long term bicycle parking areas may be located in structured parking areas and should be consolidated and located in close proximity to an elevator. Such bicycle parking areas should have safe and direct access and egress routes from the public realm, located separately from the vehicle ramp, wherever possible. Electric chargers should be provided.

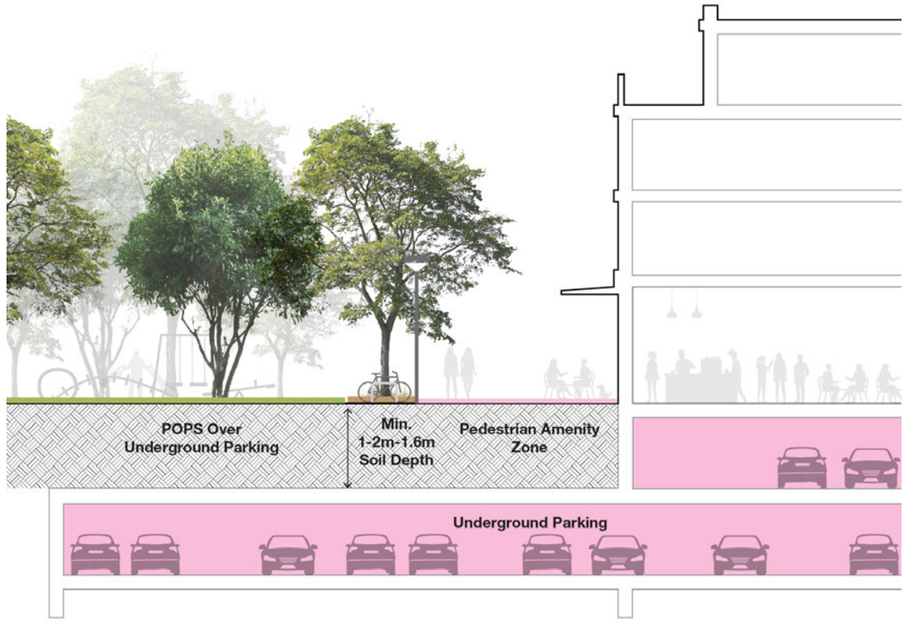


Figure 135: Underground parking facilities may be located within the subject site and below amenity spaces and POPS.

ad. Above grade structured parking should be designed with floor-to-floor heights and floor plates that support potential retrofitting to allow for alternate uses in the future. This includes avoiding the placement of the parking on ramped floors and using dedicated ramps instead.

ae. The rooftop of above grade structure parking should provide green roof elements, photovoltaic arrays, and LID measures to manage stormwater runoff.

Figure 136: Structured parking lots should include positive elevation treatments that add interest to the building.

Pedestrian Access Guidelines:

af. Pedestrian walkways should be contiguous to main drive aisles opposite primary building entrances to enable safe and direct pedestrian movements.

ag. An internal pedestrian walkway network should define visually and functionally smaller parking ‘courts’.

ah. Walkways should be a minimum of 3.8m wide, including a pedestrian zone of 1.8m wide to accommodate bumper overhang and provide at least 1.5m width for unobstructed pathway and a landscaping zone of 2.0m wide.

ai. Walkways should include pedestrian-scaled amenities wherever possible, such as benches, trash receptacles and lighting.

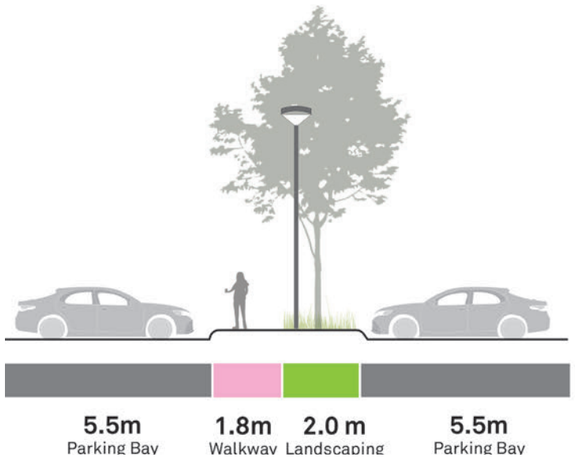


Figure 137: Walkways within parking areas should be highly visible and safe from the path of vehicles.

5.11 Site Lighting

Site lighting is an important design element within the public and private realms. Lights should aid visibility and accessibility through sites and emphasize important points of entry, architectural features, and connections.

Design Guidelines:

a. The design and selection of material palettes should be coordinated when selecting light fixtures. Ensure site lighting is properly maintained and managed.

b. Site lighting should be incorporated into the design of the public and private outdoor spaces within a site and should be coordinated with pedestrian amenities including site furnishings, artwork, wayfinding, and landscaping.

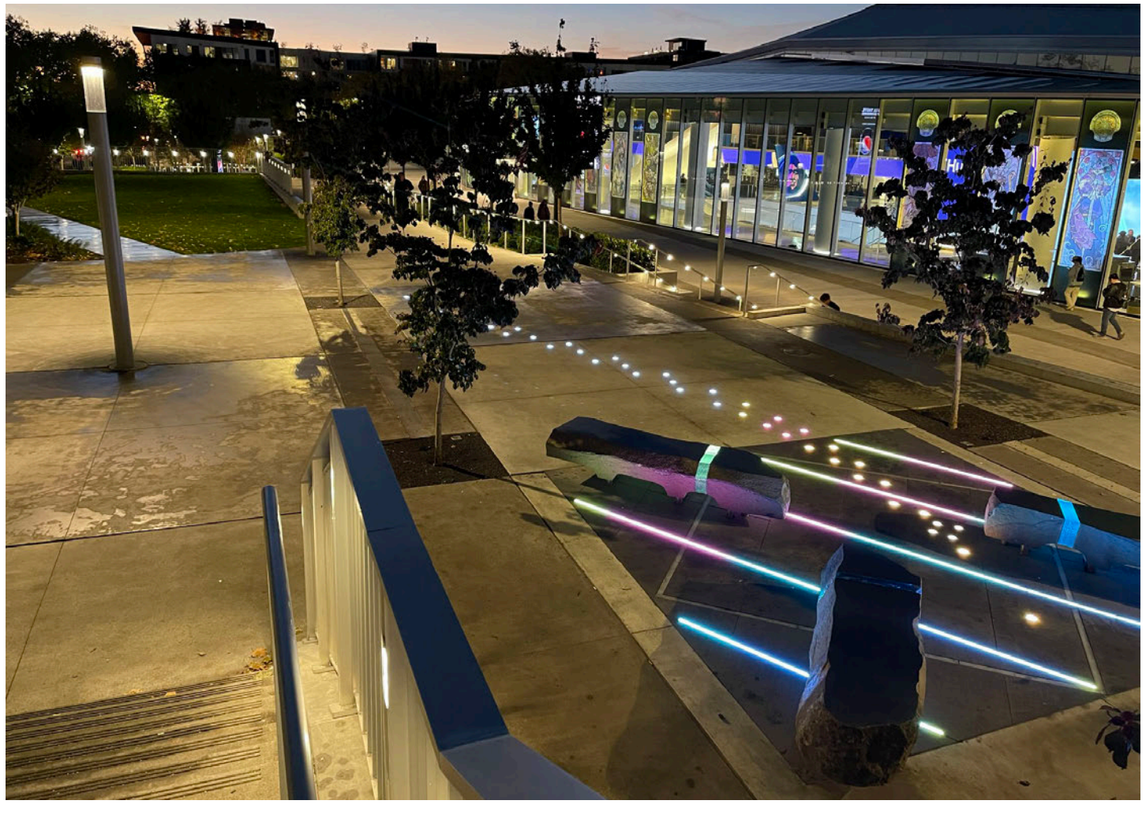


Figure 138: Site lighting can support placemaking efforts and add visual interest to the area throughout the day.

c. Lighting should be located in key areas to promote pedestrian safety and comfort, including parking areas, pedestrian walkways and connections, laneways, and within and adjacent to amenity spaces and parks.

d. Buildings should integrate lighting design at building entrances, signage, and primary elevations for legibility.

e. Lighting can be used to accent significant architectural features on heritage properties or landmark buildings.

f. The distribution of outdoor lighting should be controlled according to outdoor lighting design recommendations of the Royal Astronomical Society of Canada to minimize light pollution and maintain a dark, night sky.

g. Lighting elements should be downcast and shielded to limit light pollution and glare on adjacent properties and streets.

h. Where appropriate, site lighting should be pedestrian scaled in nature, and between 3.5 to 4.0 metres in height when lighting larger areas.

i. Barrier-free pathways should be lit at a minimum level of 5 lux for accessibility.

j. The use of energy efficient LED lights is encouraged to promote sustainability.

Figure 139: Public art can be enhanced by site lighting.
Figure 140: Light fixtures can reinforce placemaking efforts and promote public safety (Oakville Lakeshore Streetscape, Brook McIlroy)

5.13 Servicing, Loading, and Utilities

Servicing, loading and utility areas should be designed to minimize their impact on the public realm and conflict with uses, and should be considered as an integral component of site and building design. This section should be read with Section 5.14 Waste Management.

Best Practices:

- **Integration & Screening:** Servicing, loading and utility facilities should be well integrated and screened from public view, mitigating major noise and air quality concerns.
- **Safe & Accessible:** Locate and design servicing, loading and utility areas to minimize conflicts with pedestrian and vehicular circulation and to promote a safe, comfortable and attractive public realm and pedestrian environment.

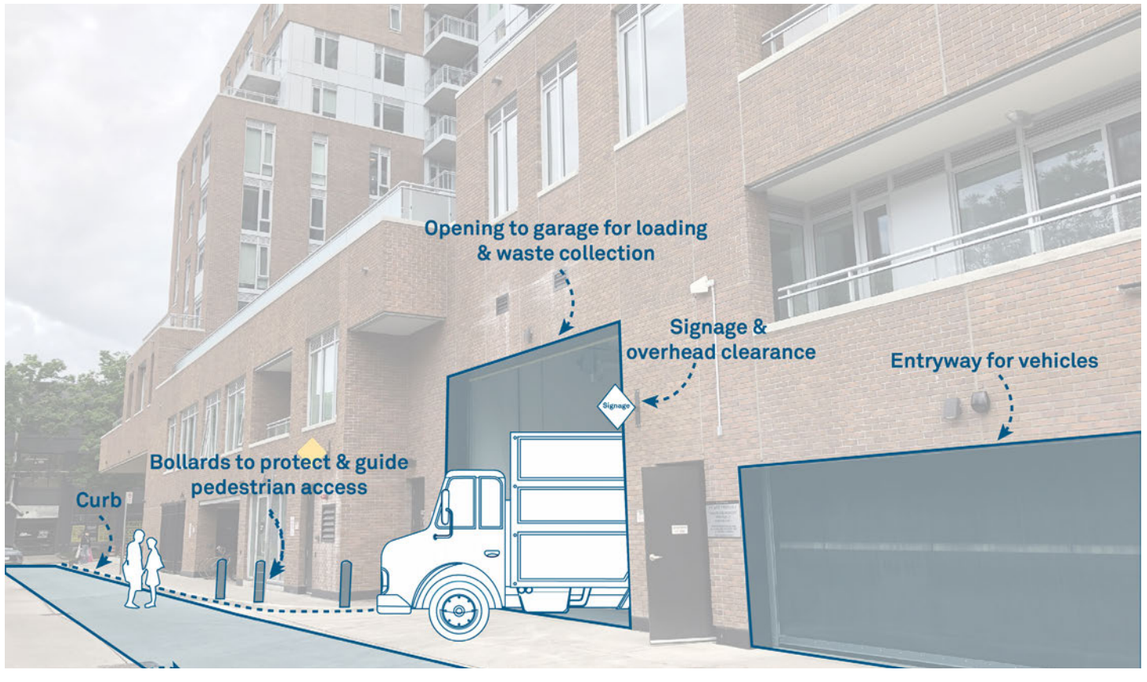


Figure 141: Loading and waste collection should be located within the building envelope, clearly signalled, and provide sufficient overhead clearance for safe use.

Design Guidelines:

a. Consolidate servicing areas to serve multiple buildings and functions. Shared access to servicing and loading is encouraged to reduce curb cuts, promote user safety and limit interruptions along the street.

b. Site circulation should provide efficient routes for vehicles to access servicing, loading and utilities, including space for sufficient turning radii and vertical clearance. Design measures that minimize conflict with pedestrians, cyclists, and motorists should be employed.

c. Site circulation for trucks should avoid reversing or manoeuvring on public streets.

d. Servicing and loading should be located away from main building entrances, parks and outdoor areas and pedestrian pathways.

e. Servicing and loading areas should not encroach into the exterior side yard and/or front yard setback and should not be located between buildings and the street.

f. Include signage and lighting that clearly identifies loading and service areas to prevent confusion and promote pedestrian safety.

Utilities:

g. Locate utility services underground, where possible, to minimize negative impacts to the streetscape and development. Where this is not possible, above ground utilities must be well integrated and compatible with other site elements and incorporate screening.

h. Access to utilities should be coordinated to the satisfaction of relevant utilities providers.

i. Utilities must be considered as an integral component of site and building design to reduce their visual impact on the public realm. Utility metering should be consolidated and integrated into the building design, preferably within internal rooms.

j. Locate site utilities within a joint utility trench that can be easily accessed for repairs and maintenance. The placement should be located away from primary building frontages and amenity spaces.

Screening, Fencing & Enclosures:

k. Servicing, loading and utilities should be enclosed within the building envelope when possible. Where this is not feasible, screening should minimize impact to the public realm.

l. Incorporate dense, year-round landscaping between screening material and property line to provide additional privacy, separation and noise buffering.

m. Facilities should incorporate screening and/or buffering elements that are compatible with the building(s) design and appropriate for the facility. High quality and durable materials that minimize visibility and promote acoustic control should be employed.

5.14 Waste Management

Waste management areas are necessary components of any site design. To allow for safe and efficient removal of waste, these service areas need to be functional and easily accessible without disrupting building use or traffic. Their visual impact should be minimized through strategic location, placement, and screening. These guidelines apply to private collection only. For Niagara Region waste collection, refer to the Niagara Region's Waste Collection Policies and guidance.

Best Practices:

- **Safe Access and Manoeuvrability:** Building and site design should allow for adequate access for waste collection vehicles to enter and exit the waste management area safely and efficiently.
- **Avoid Disruptions to Site:** Waste management areas should be designed so that truck movements do not disrupt regular vehicle and pedestrian access or impede on any other public spaces.
- **Minimize Visual Impact:** Waste handling areas should be located in an area that is away from public view, enclosed by a building structure or screened by landscaping.

Figure 142: Waste collection areas should have an overhead clearance of 4.4 metres to ensure collection vehicle access is achievable.

Waste Collection Access Guidelines:

a. Roadways intended to accommodate waste collection must be designed with reference to the Niagara Region requirements for waste collection policies and practices.

b. The roadway must be designed to provide safe access and egress from the waste collection area.

c. Although “T” turnaround areas are not preferred, they can be used on sites if they provide sufficient space for collection vehicles to back up and turn around safely.

d. The pavement of the waste collection area and roadway must be constructed to be able to support the weight of collection vehicle and its loads.

e. Overhead clearance of 4.4 metres must be maintained on all collection vehicle access routes.

f. The waste management area and access roadways must be designed to provide unobstructed access to the location where waste material is to be collected.

Residential Waste Collection Guidelines:

g. Within low-density residential areas, waste collection in front of each property or unit is preferred. Alternate options may be studied in collaboration with the Niagara Region's Waste Collection teams and should reference the Niagara Region Corporate Procedure: Procedure for Requirements for Waste Collection.

h. For multi-unit residential developments, appropriate storage space for garbage, recycling, and organics collection containers is required.

i. Access to the waste management area should be through a secondary street or laneway, and include elements that improve safety for pedestrians and cyclists crossing the area.

j. Waste material consolidation should be located within the building itself and should be enclosed or screened to minimize the area from public view.

k. Avoid placing the waste management areas at the exterior of the building, between the building and the street.

l. The enclosure or area finishings should match the exterior architectural finish of the main building.

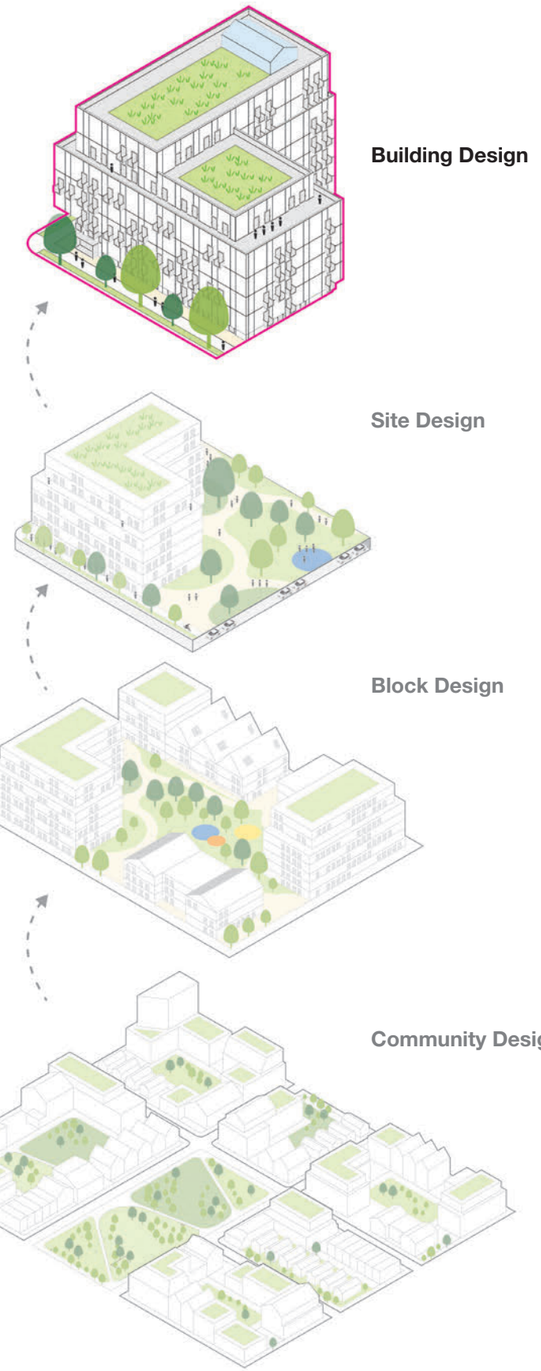
6.0 Building Design

The design of buildings can influence the look and feel of neighbourhoods and communities throughout Niagara and contribute to local well-being and prosperity. Buildings should be designed in a sustainable manner that integrates well with the surrounding area. It is a best practice to construct buildings to be flexible, with durable materials, and high quality architectural design. Good design that provides lasting visual value and durability is strongly encouraged in Niagara.

Key elements of high quality buildings include:

- Functional building layouts and space allocations to meet the needs of occupants or building users.
- Natural light, ventilation, acoustics and thermal comfort to promote well-being and enjoyment of building spaces.
- Building components, massing and heights can support transition to lower-scale areas.
- Visually appealing proportions, scale, harmony and balance with high quality materiality.

Buildings should be designed to respect the unique character of Niagara's communities and transition to the surrounding planned and existing buildings by applying a best practice approach. The following guidelines address common building types.



6.1 Sustainability and Well-being

As Niagara continues to grow and evolve, building designs should prioritize holistic sustainability, visual beauty, and ecologically responsible circular building practices. Excellence in building design will enhance the region's identity and contribute to animated spaces and places inside, outside, and between buildings. Buildings and landscapes should be created to foster interaction between residents and support community vitality.

The lifespan of buildings can be maximized by incorporating principles of resiliency at the early phases of the design. Planning for lifespan maximization and sustainable construction of the building in early phases of a project can minimize environmental and economic costs long-term. Circular practices can support sustainability by re-using existing building materials to reallocate embodied carbon and support the local economy.

Best Practices:

- **Building Resiliency:** Design buildings and systems that are sustainable long-term and can adapt to changes in use, tenancy, market, climate, and future technologies.
- **Reduction of Energy Use and Increasing Energy Efficiency:** High performance building envelopes and energy-efficient building systems should be integrated to maximize energy performance.
- **Safety and Comfort:** Universal Design principles and AODA standards should be applied.
- **Circular Building Practices:** Design for long-term durability, optimized material recovery and limit the amount of waste and excess. Encouraging circular construction practices will help support a transition towards a more ecologically responsible and sustainable future.

Figure 143: Algonquin College is designed with porous indoor/outdoor programming in mind to promote student health and well-being (Industryous Photography and Brook McIlroy)

Design Guidelines:

a. Design buildings to reduce wind speeds through shape, height, step-backs, façade dimensions, façade separations, and features including canopies, colonnades, and parapets.

b. The siting, orientation, and design of buildings should promote passive design measures such as natural ventilation, daylighting, and passive heating to maximize energy performance and occupant comfort.

c. Buildings should be oriented to optimize the potential for solar energy generation from rooftops and facades (particularly South and West) by minimizing self-shading and shading from adjacent buildings. For example, building penthouses should be located at the northern portion of the building roof to maximize potential for solar-related productive roofscapes.

d. Encourage a mix of uses and programs within a building so residents can live, work, shop, and play within a short walking distance from home.

e. Provide shading devices such as canopies, overhangs, pergolas, and sunshades in pedestrian areas to mitigate sun effects during summer months.

f. Ensure pedestrian weather protection is provided at building entrances and pathways adjacent to the building.

g. Where feasible, include secure bike storage and repair stations inside buildings to encourage cycling as a preferred mode of active transportation.

h. Encourage reduced vehicular parking standards to reduce the cost and embodied carbon of new buildings.

Figure 144: Facades may be designed in a manner that incorporates shading and overhangs to passively cool units.

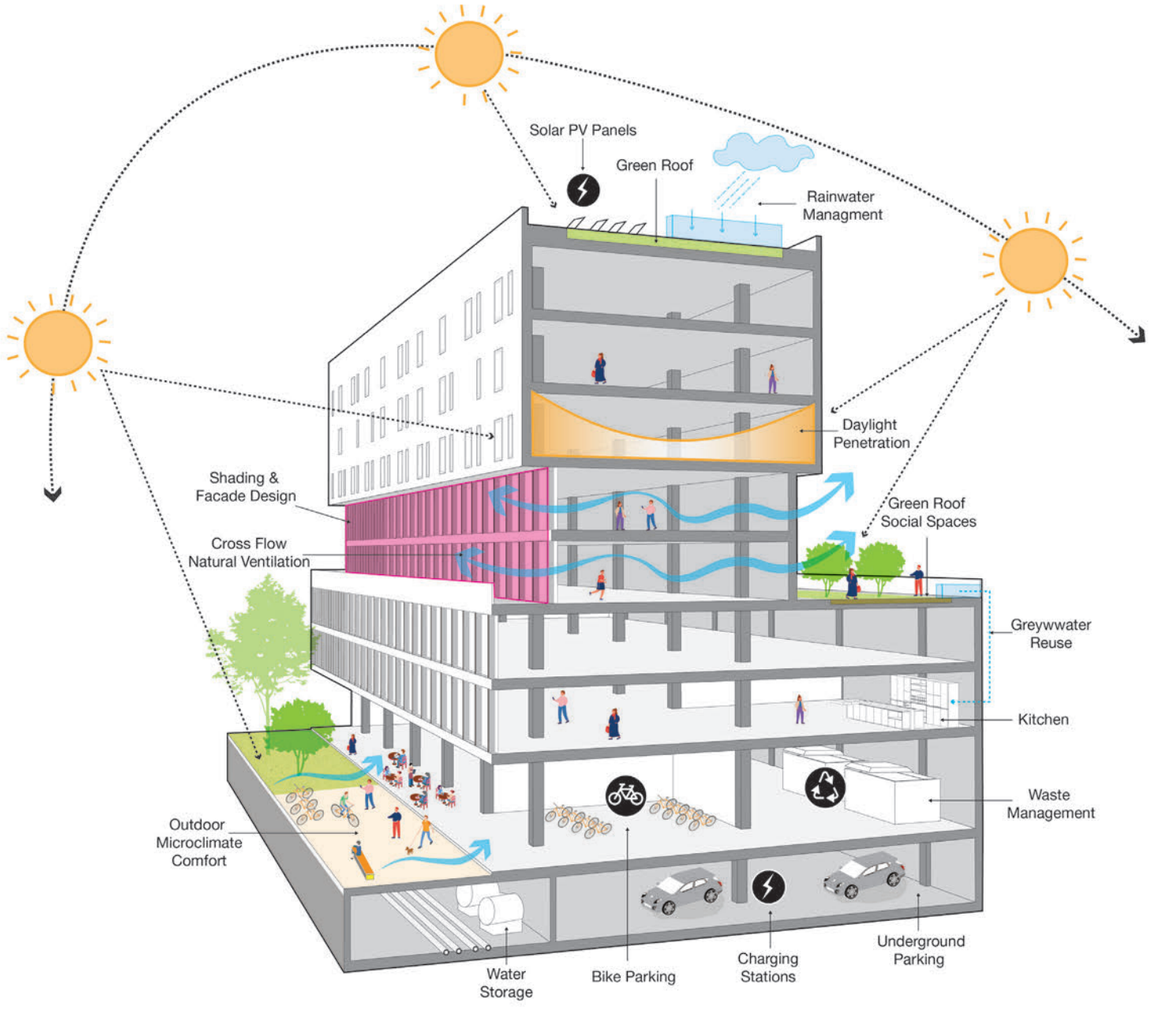


Figure 145: Sustainable building design considers a number of interconnected design interventions to have a positive impact on building users and the wider community.

Circular Building and Resiliency Design Guidelines:

The construction industry plays a pivotal role in global resource consumption and environmental impact. The concept of circular economy combats traditional linear systems of consumption and production. The use of high quality and durable materials supports the circular economy and promotes sustainable building practices. Applying these principles in building and infrastructure projects will help reduce, reuse, and recycle materials to reduce the carbon footprint of buildings over the long-term and mitigate climate change.

i. Encourage building design for passive survivability by ensuring critical life-support functions remain operational during extended periods of absence of power, heating fuel, and/or water.

j. Design adaptive and flexible buildings that can have multiple life cycles and changes in use. Consider building form and systems, including utility corridors that enable flexibility and ease of replacement.

k. Buildings should be designed to maximize flexibility in use and tenancy over time in order to extend the useful life of the building. Components with short life cycles (interior finishes, furnishings, interior partitions, space layouts) And medium-range life cycles (HVAC, plumbing, building envelope) should be easily serviced, upgraded, and replaced without requiring demolition of the core structure.

l. Floor-to-floor heights within buildings should be designed to accommodate a range of uses and mechanical systems above and below the occupied space. As technologies evolve, mechanical systems can be replaced and upgraded without requiring alteration to the core structure of the building.

m. Considerations should be made for the facilitation of future intensification and retrofits of buildings during the site and building design phase. This includes strategies for future building expansions. Phasing diagrams for multi-phase projects should be submitted along with development applications.

n. Encourage building rooftops to be productive and used for a combination of renewable energy production, solar thermal technology, green roofs, and stormwater management. All non-productive roof surfaces should feature a high-albedo cool roof finish to reduce heat absorption.

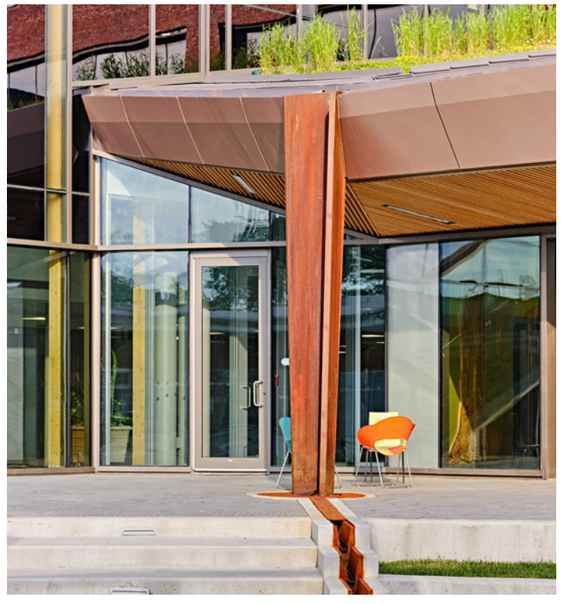


Figure 146: Algonquin College includes building rooftops with green roofs (Industryous Photography and Brook McIlroy)

o. Prioritize the use of renewable products such as mass timber and other innovative materials and products with recycled content to support lower-carbon, circular construction.

p. New developments should incorporate sustainable materials and promote waste diversion strategies in order to minimize environmental impacts and reduce the amount of waste heading to conventional landfill sites.

q. Encourage the use of salvaged or upcycled construction materials for new buildings and public spaces wherever feasible.

Building Energy Use, Production, and Efficiency Guidelines:

r. Buildings should generally limit the proportion of glazing to solid wall in a facade to a maximum of 40% to minimize unwanted thermal gain and loss. Glazing proportions can be increased if using high-efficiency technologies such as triple glazing and low-emissivity coatings and should be verified through energy modeling.

s. Building envelope and façade materials should be selected for beauty, durability, ability to weather attractively, high thermal efficiency, and low embodied carbon. Long-lasting attractive façade materials reduce material waste and carbon intensity long-term by avoiding the need for replacement as a result of weathering or damage.

t. Design high performance building envelopes to slow thermal exchange and reduce heating and cooling loads.

u. High-efficiency equipment for heating and cooling should be provided, such as electric heat pumps and heat recovery systems for exhaust air.

v. Façade elements including high-efficiency glazing, projecting or inset balconies, exterior shades, and other shading devices should be designed to manage passive solar gain and to improve energy performance.

w. Where possible, buildings should incorporate renewable energy systems including solar thermal, photo voltaic, wind power, and geo-exchange to supplement energy-intensive systems.

Figure 147: Green roof elements or community gardening efforts can be complemented by photovoltaic arrays.

x. New developments are encouraged to be constructed to meet sustainable building standard certifications such as Passive House, LEED, WELL, BREEAM, and Zero Carbon Building Standard to measure and communicate the desired sustainability outcomes of building projects.

y. New developments are encouraged to establish metrics for tracking energy and carbon emissions of buildings. New and existing buildings should establish targets such as net-zero development and utilize metrics to evaluate designs and assess design strategies needed to achieve the targets.

- Total Energy Use Intensity (TEUI) measures the total amount of energy a building uses per square metre of gross floor area in a year. Buildings can be retrofitted or improved over time by understanding where energy efficiencies can be realized. Reference standards like Passive House and the Canada Green Building Council are helpful in establishing targets for a building's TEUI.

- Thermal Energy Demand Intensity (TEDI) measures the energy used to heat and cool a building in a year to maintain comfort. It can be used to measure the quality of a building envelope and efficiency of ventilation systems. A low TEDI supports resilience, occupant comfort and enables the use of low-temperature heating equipment that can best leverage low-carbon energy sources.

- Greenhouse Gas Intensity (GHGI) is the equivalent carbon emissions that result from the energy used by a building in a year, typically reported as kilograms of equivalent CO2 emissions per square metre of building gross floor area. GHGI is affected by how much energy is used (TEUI) and the carbon intensity of the energy source. These are impacted both on-site by the energy efficiency of the building, and off-site by the creation of the energy sources used by the HVAC system.

z. Consider Dark Skies compliant exterior building lighting that is shielded to reduce light spillover and automated to turn off or dim when not in use.

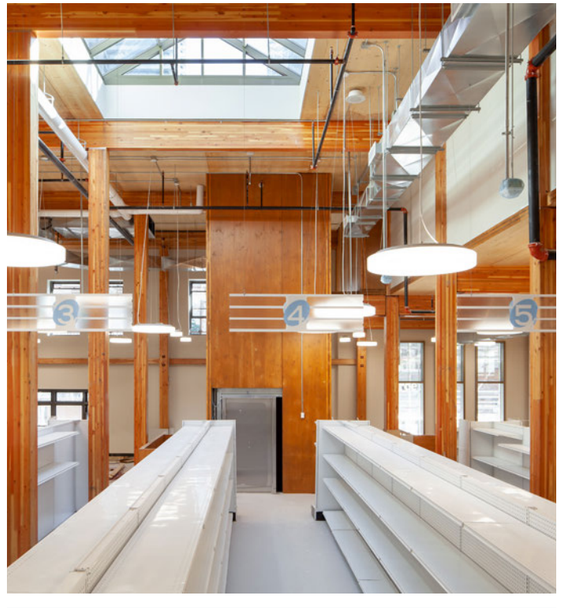


Figure 148: Mass timber buildings can limit the embodied carbon of new developments (Mass Timber Building, Scott Norsworthy, Brook McIlroy)

Figure 149: Views to green roofs can enhance interior spaces and promote the maintenance of this important infrastructure.

Buildings and Stormwater Management Guidelines:

aa. Building roofs should be constructed to allow for the retention of roof water run-off and possible re-use on-site combined with controlled infiltration. This will help alleviate pressures on the existing stormwater management system.

ab. Buildings should be designed for efficient water use. This can be accomplished using conventional methods, such as ultra-low flow fixtures and dual flush toilets, or more innovative water saving measures like waterless urinals and grey-water recycling systems.

ac. The re-use of domestic grey water from laundry machines, sinks, showers, baths, and other appliances is encouraged to help avoid excessive strain on the potable water supply. This also helps to reduce energy used in water treatment, processing, and distribution.

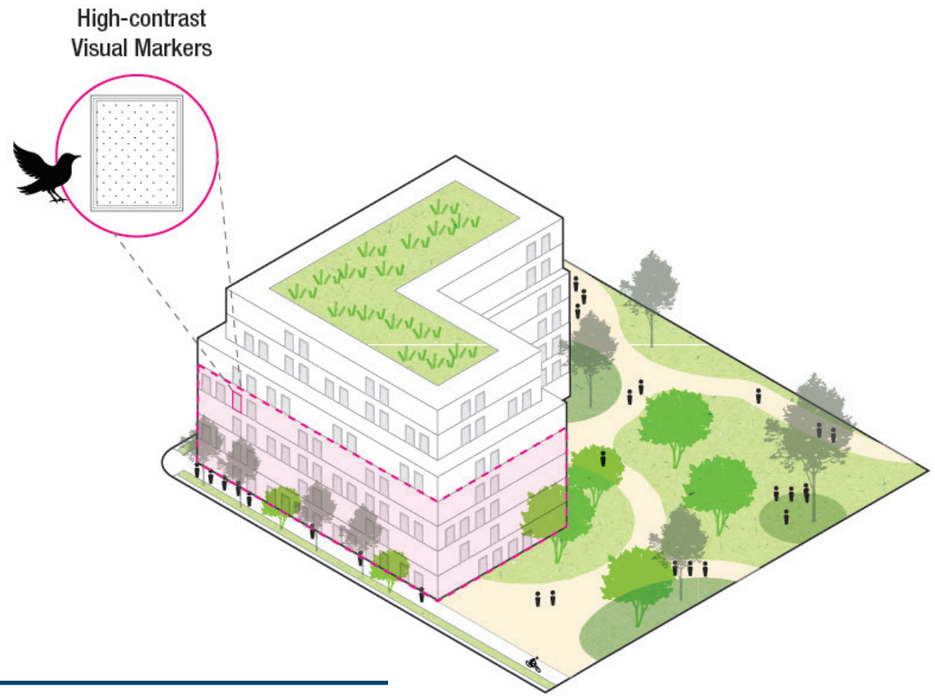


Figure 150: All buildings should be designed to minimize bird collisions. High-risk glass should be treated with high-contrast visual markers to reduce the risk that glass surfaces pose to birds.

Bird-Friendly Design Guidelines:

ad. New buildings should consider the health and well-being of bird populations through the design of glazing, landscapes, and lighting to reduce the incidence of bird strikes and create an urban environment in which birds can thrive.

ae. Apply bird-friendly glazing treatments and other techniques including awnings, overhangs, and screens, to minimize the chance of bird impacts with buildings.

af. Avoid monolithic, undistinguished expanses of glazing.

ag. Incorporate visual interest or differentiation of material, texture, colour, opacity, or other features to fragment reflections.

ah. Where glazing is used, bird-safe glass or glass with integrated protection treatments should be applied to a minimum of 90 per cent of the glass within the first 16 metres of height as measured from the finished grade, or to the height of the adjacent mature tree canopy, whichever is greater. Visual markers (e.g. ceramic frit) should have a spacing no greater than 50mm by 50mm.

6.2 Heritage Building Guidelines

Niagara's heritage buildings illustrate the evolution of its communities and the cultural heritage of architectural design, systems, and materials. Heritage buildings can often reflect historic and cultural aspects that are important to creating good urban design as buildings and spaces embody meaning and beauty.

Best Practices:

- **Conserve in situ:** Relocation of heritage buildings is discouraged. Instead, conservation in situ is preferred.
- **Adaptive Reuse:** Encourage adaptive reuse of heritage buildings and ensure minimal impacts from alterations and additions.
- **Expertise:** Developments that propose changes to heritage buildings should be reviewed by heritage planners or heritage architects, and work should be carried out by qualified contractors with expertise in heritage building techniques.

Figure 151: Heritage buildings can be retained in situ and conserved as landmarks (Brook McIlroy)

Design Guidelines:

a. Adaptive reuse of heritage buildings is strongly encouraged to reduce carbon emissions and protect cultural heritage value.

b. Exterior renovations to heritage buildings should consider how the exterior form of the building contributes to the heritage value of the building and its surrounding environment.

c. Wherever possible, repairing existing elements is preferred to replacing existing elements.

d. Reinstate well documented elements of the building using era-appropriate techniques.

e. Proportions, colours and massing of the heritage building should be conserved.

f. To the satisfaction of municipal staff, document the heritage building's exterior form before undertaking interventions.

g. Retention of the three-dimensional form is strongly encouraged. Facadism should be avoided.

h. Sustainability requirements can be accommodated in a manner that respects the heritage building and minimizes visual impact.

i. Original elements that lie beneath contemporary alterations should be conserved and replicated where necessary if damaged.

Figure 152: Heritage additions should be designed in a manner that is sensitive to the existing building (Bench Brewery)

Ground Floor Guidelines:

j. Wherever possible, ground floor elements of heritage buildings should be retained and conserved.

k. Renovate shop fronts in keeping with the original building design, using those elements that are intact, and replacing missing features.

l. The base panel of heritage storefronts provides a visual and functional building base. Original base panels should be maintained when they exist with materials of the same colour and texture as the display window frame, or the pilaster materials.

m. As the largest element of the shop front, the display window establishes the character of the façade. The continuity of large display windows should be maintained.

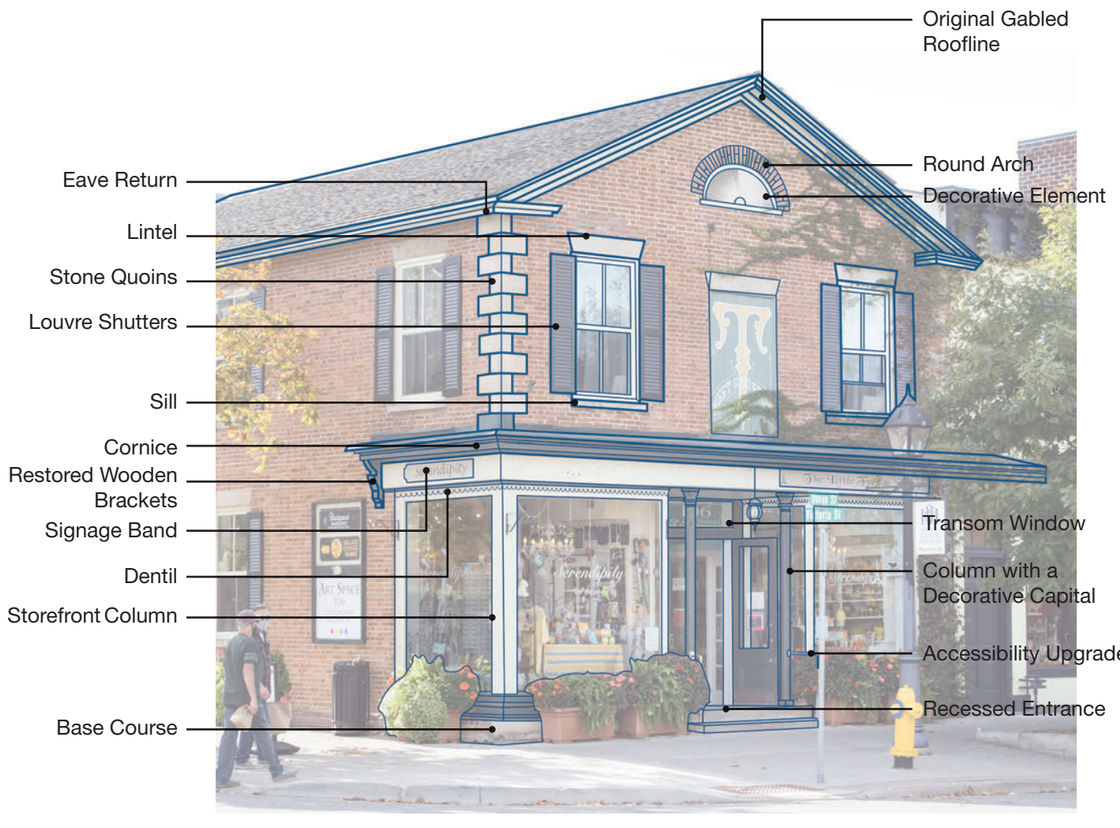


Figure 153: Heritage elements should be conserved by qualified professionals.

n. The display front is often divided near the top into transom windows. The transom should be maintained and any obstructions such as air conditioning units that have been inserted into this space should be removed.

o. Doors are a very important functional design feature of heritage buildings. The location, size, shape, and style of doors establish our most immediate impression of a building. The style of heritage doors should be preserved where possible, respecting the shape of the opening, the divisions within it, and the surrounding trim.

Windows and Openings Guidelines:

p. In addition to providing light, views, and ventilation, windows are an important design element of a heritage building façade. The location, size, shape and style of windows help to establish our impression of the building. Replacement windows should duplicate the originals in style, type and material. If an exact duplicate is not possible, windows with similar operation and internal divisions should be installed.

q. The size, location or number of openings on the main façades should not be changed, unless the property is being restored to its original appearance.

Figure 154: Ground floor elements should be retained and conserved (Bench Brewery)

Heritage Roof Guidelines:

r. Roofs are vital to the protection of a heritage building and are often considered character defining elements. Roof lines should be restored where necessary and not be otherwise altered.

s. Heritage building roofs should be maintained with high quality and era appropriate materials and techniques.

t. Profile and materiality of gutters should be conserved wherever possible and flashings should be replaced as required to ensure good maintenance of heritage buildings.

Heritage Material Guidelines:

u. Heritage buildings should be painted in colours matching the original selection. Historic photographs (supplied by the local heritage society), and paint samples/ fragments (retrieved from the structure if possible) will provide useful information.

v. Heritage brick should not be painted over. Where bricks require cleaning, sandblasting is strongly discouraged due to its eroding effect.

w. Heritage brick should not be repointed with concrete. Repointing should be achieved using lime-based mortar or tuckpointing, as appropriate.

Key Policy Documents:

- Ontario Heritage Act
- The Standards & Guidelines for the Conservation of Historic Places in Canada

Figure 155: The conservation of heritage properties can be achieved in a manner that respects the heritage resources.

Figure 156: The openings on the main facade of heritage properties should not be changed.

6.3 Low-Rise Building Guidelines

Low-rise building forms include detached, semi-detached (duplex), townhouse, and low-rise apartment buildings. They also include Accessory Dwelling Units (ADUs) as defined by the zoning by-law. Low-rise building forms are generally up to four storeys in height.

Best Practices:

- **Appropriate Density and High Quality of Life:** Achieved with building forms that maintain visual and physical connections with the surrounding environment and activity at ground level.
- **Transition:** Low-rise buildings such as townhouses and apartment buildings provide opportunities for effective height and density transitions between mid-rise and tall building forms and established low-rise neighbourhoods, parks, open space, and natural areas.
- **Varied Architectural Styles:** Great urban form can be achieved with a variety of architectural styles from heritage to modern and contemporary.

Figure 157: High quality materials and overlook to the public realm should be prioritized in low-rise building forms.

- **High Quality Materials:** Robust, attractive, and durable building materials ensure low-rise buildings maintain their appearance over time and contribute to the feel and character of the neighbourhood. The minimization of street-facing garages and parking contributes to the walkability, vitality, and character of neighbourhoods.

Type	Density
Single-Detached	Up to 24 dwelling units per acre
Semi-Detached	Up to 40 dwelling units per acre
Townhouse	Up to 75 dwelling units per acre
Low-Rise Apartment	50-100 or more dwelling units per acre

Figure 158: Target net densities (not including roads) for various low-rise residential building forms.

Design Guidelines:

a. Higher density forms of low-rise housing (townhouses and low-rise apartment buildings) should be incorporated into detached and semi-detached low-rise development plans to achieve higher intensity and efficiency of land use.

b. Consistency in quality of design and craftsmanship (as opposed to form, style or repetition of identical elements) is of paramount importance in achieving a high quality and beautiful neighbourhood character.

c. Authentic, high quality, and durable materials should be used on all building facades to ensure long-term beauty.

d. Materials that mimic or approximate authentic materials, such as aluminum panels with wood prints, or manufactured stone veneer products may be used sparingly.

e. Exterior Insulation and Finishing Systems (EIFS) and stucco-textured foam trims and moldings should be used sparingly due to susceptibility to damage.

f. Non-rainscreen stucco finishes should be avoided due to potential for cracking, discolouring, and mould growth resulting from water and vapour ingress due to imperfections in the building envelope.

Figure 159: Varied architectural forms are strongly encouraged within new developments.

Façade Design Guidelines:

g. Within a single building's façade, rhythms of horizontal and vertical elements and materials should be used to establish a strong and consistent street edge that incorporates enough variety to create interest when viewed from the public realm.

h. Building façades should be articulated to subdivide the overall massing through elements such as recesses, projections, windows, awnings, landscaping features, and corner treatments. Dividing a single façade through material changes to convey a false impression of individual buildings is discouraged.

i. Active frontages should constitute much of the linear length of ground-level façades facing streets, lanes, and open space. Active frontages include transparent glazing and pedestrian entrances that physically and visually connect building interiors with the adjacent public realm.

j. The principal entrances of buildings should be oriented toward the street for both shared and individual entrances.

k. Front facades of dwellings should include 30 to 40% of their surface area as transparent glazing.

l. Vehicle-related frontages (garage doors, carports, parking spaces, loading docks, and/or loading areas) should be minimized along street edges where possible and located at the rear of the building to enhance walkability along the public-facing façade.

m. Secondary (side and/or rear) façades should maintain consistency in materials and design to that of the primary façade.

n. Tripartite building expression (base, middle, and top) should be achieved through articulation and material changes.

o. Material changes along a façade should occur in concert with horizontal and vertical articulation elements (setbacks/projections) and should not occur within an uninterrupted plane.

p. Glazing within an overall wall should be designed to achieve natural light and ventilation into habitable areas while achieving a balanced composition of solid wall and glazing.

q. Where privacy concerns exist along secondary (side and rear) façades, clerestory windows are encouraged to allow natural light penetration and ventilation while maintaining privacy.

r. Buildings located on corner sites should address both street edges equally, with a comparable level of design and articulation. Public amenity features such as seating, recessed entrances, and landscaping should be incorporated at the corner to improve the quality of the public realm.

s. Backlotting (siting of rear facades) against adjacent streets, parks, or open spaces is strongly discouraged. Where lots front a street, park, or open space on more than one side, each façade must be designed as a primary façade, complying with active frontage and glazing requirements for primary façades.

t. All glazed and reflective surfaces should employ bird-friendly design including visual markers and patterning to minimize bird strikes.

u. The use of mirrored, tinted, or highly reflective glazing is discouraged.

v. The use of opaque vinyl coverings on transparent glazing is discouraged.

Figure 160: Tripartite building expression should be achieved within low-rise forms where relevant.

Roofscape Guidelines:

w. Pitched, sloped, and flat roofs are all acceptable roof forms and a variety of roof forms contributes to the diversity architecture in the region.

x. Robust and durable roofing materials are encouraged to avoid frequent replacement due to age and/or damage. Materials that resist sun damage, puncturing, and maintain their finish over time are encouraged.

y. Skylights are encouraged to maximize natural light penetration into buildings and should be designed as an element of the roofscape, composed with dormers, chimneys, and other protruding elements with the same care as any vertical building façade.

z. Low-rise building forms have a higher roof-to-building-area ratio than mid-rise or tall buildings and as such the surface of the roof must be considered in the sustainable performance of the building. Inclusion of productive roof elements is encouraged for all low-rise building forms, including living (green) roofs, cool (high-albedo) roofs, solar thermal, and photovoltaic applications.

aa. Townhouse dwellings should use roof form to distinguish dwelling units through creative expression of angular roofs that repeat at each individual unit, reinforcing a residential character.

ab. Mechanical penthouses on the roof of low-rise buildings should be screened from view using high quality enclosures that are designed as part of the overall building composition.

Setbacks and Separation Distances:

ac. Low-rise buildings (except for townhouses) should have a minimum separation distance of 11.0 metres in the case that windows are present on one or both of the facing facades.

ad. Low-rise buildings (except for townhouses) should have a separation distance of 6.0 metres in the case that no windows are present on either of the facing facades.

ae. For all residential frontages, setbacks from a common or public space (street, pathway, park, open space) should range from 4.5 to 7.0 metres. Sidewalks should be located adjacent to the frontage outside of the setback, allowing the entire setback to be used for a combination of landscape, terrace, landing, and stairs.

af. Fencing between the front setback and public or common space is limited to a maximum height of 1.2 metres and must contain a clear opening or operable swing gate.

Setback Provisions: Single, Semi-detached, Duplex and Townhouse Dwellings	Proposed Standard (metres)
Minimum Front Yard Setback	
• From property line to front face of attached garage;	6.0
• On a lot with a front porch permits porch, steps and rails max. encroachment of 3.0m);	4.5
• On a lot where the garage is in the rear yard accessed by a lane or driveway	3.0
Minimum Interior Side Yard Setback	
• Attached garage/less than 12.0 m lot and greater than 9.0 m;	1.2 each side
• Attached garage/ 9.0 m lot and less;	1.2 each side
• Garage located in the rear yard accessed by a driveway;	1.2 and 0.6
• Abutting a non-residential use (including a walkway, trailway and SWM ponds)	3.5 and 1.2
Minimum Exterior Side Yard Setback	
• With a side yard porch;	4.5
• Adjacent to a rear lane;	3.0
• Adjacent to a site triangle;	1.2
• Site triangle abutting an entrance feature (including a max. 1.5 metre encroachment)	3.0
Minimum Rear Yard Setback	
• On a lot accessed by a driveway;	7.5
• On a lot with a rear yard garage accessed by a lane or driveway;	9.0
• On a wide shallow lot	7.5
Interior Garage Dimensions	
• Less than 11.0m lots;	Min. 3.3 wide by 6.0
• 11.0 to 11.5 m lots;	Min. 3.3 wide by 6.0 Max. 4.5 wide
• 11.6 to 11.9 m lots;	Min. 3.3 wide by 6.0 Max. 5.0 wide
• 12.0 m lots and greater;	Min. 5.5 wide by 6.0
Maximum Garage Projection	
• From front wall of dwelling where there is no front porch;	
• From front wall of dwelling where there is a front porch	
Minimum Lot Depth	30.0
Maximum Building Height	up to 16.0m
Maximum Garage Width (interior width)	Max. 50% of house frontage

Figure 161: Model Residential Setback Guidelines for single, semi-detached, duplex and townhouse dwellings.

Detached and Semi-Detached (duplex)

ag. Detached and Semi-Detached buildings are generally 2 to 3 storeys in height and contain 1 to 2 dwelling units.

ah. Front yard setbacks for detached and semi-detached buildings should align with the prevailing setback of existing buildings in the streetscape. In the absence of a prevailing setback, front yard setbacks should range from 4.5 to 7.0 metres.

ai. Rear yard setbacks to primary buildings should be a minimum of 7.5 metres from the rear property line. Rear garage accessory buildings may be located at zero setback from the rear property line where a laneway exists adjacent to the rear of the property.

aj. Side yard setbacks for lot widths 10.0 metres or wider should be a minimum of 1.2 metres on both sides.

ak. Side yard setbacks for lot widths less than 10.0 metres should be a minimum of 1.2 metres on one side and may be reduced to 0.6 metres on the other side.

Townhouse Guidelines:

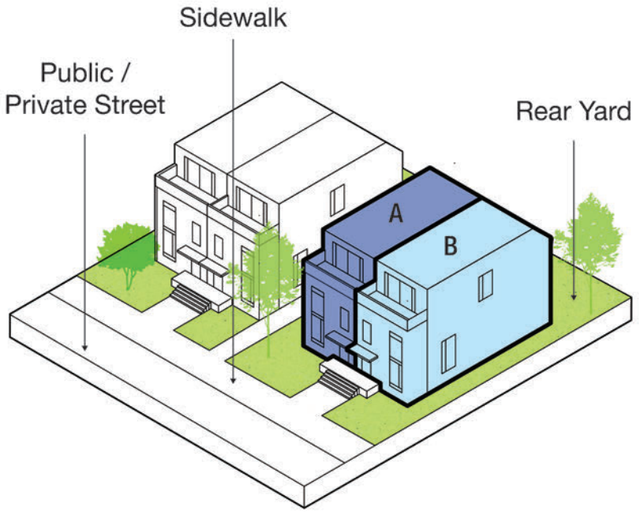
al. Townhouses are generally between 2 and 4 storeys in height and provide direct unit access from the exterior without interior corridors. In the case of stacked townhouses, an interior stair provides direct access from the grade-level entrance to the upper-floor unit.

am. Townhouse garages may be located within the townhouse building envelope at the front or rear, or in the rear as an accessory building on the site. In some cases, underground shared parking garages span the length of the lot, providing access via a shared ramp.

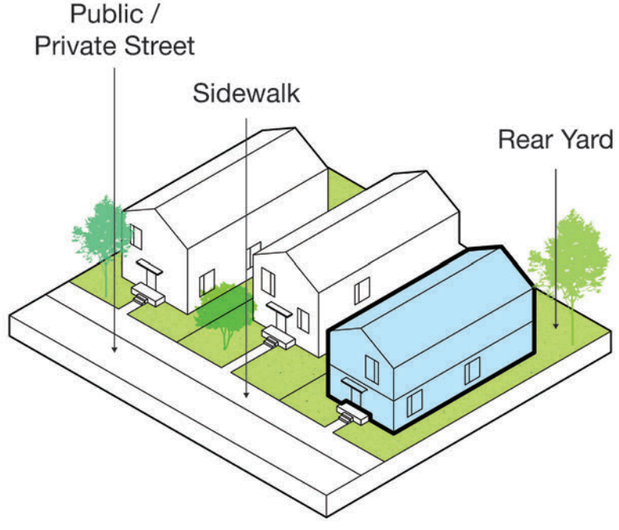
an. Townhouse blocks should be oriented front-to-front and rear-to-rear to promote walkability and to limit the extents of vehicle routes on a site.

ao. Pedestrian entrances to townhouses should be located 0.6 to 1.2 metres above grade to balance privacy with walkability and human scale. Entrances should connect to the adjacent sidewalk with stairs and a raised patio/landing that together protrude no more than 3.0 metres beyond the building face. Tall runs of exterior stairs are not permitted.

Figure 162: Front yards should be of an appropriate size for planting.



Semi-Detached



Detached

Figure 163: Semi-detached and detached forms should include ample space for landscaping.

Figure 164: Townhouses may include rooftop terraces to provide private outdoor amenity space.

ap. Stacked townhouse blocks containing upper-floor suite entrances must contain all access stairs within the building envelope.

aq. Townhouse groupings should be limited to a maximum of six linear dwelling units or 40 metres in length (whichever is less), with breaks between contiguous groupings.

ar. Breaks between townhouse groupings should be equal to the greater of 50% of the width of an individual townhouse, or 3.0 metres in the case that no windows are located on either side façade.

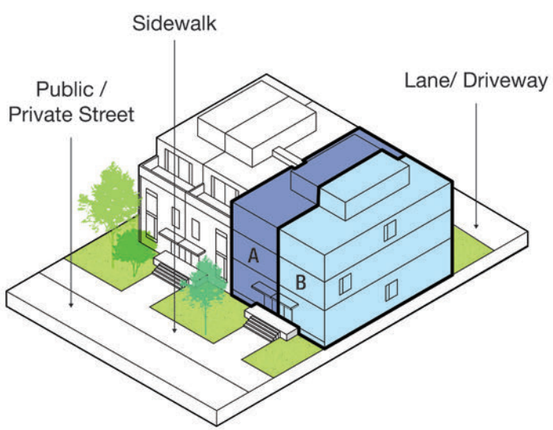
as. Breaks between townhouse groupings should be a minimum of 6.0 metres in the case that one or both of the side façades contain windows.

at. Where vehicle parking is located at grade within an individual townhouse unit, individual townhouse units should be a minimum of 6.0 metres in width, with no more than 3.0 metres of the façade width occupied by a garage door.

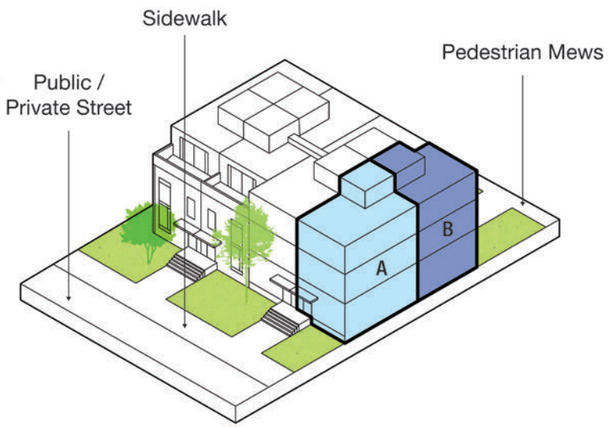
au. Double-width garage doors are not permitted along the front (primary) façade of a townhouse unit.

av. Where vehicle parking is located below grade or in a shared lot, townhouse unit widths should be a minimum of 4.5 metres.

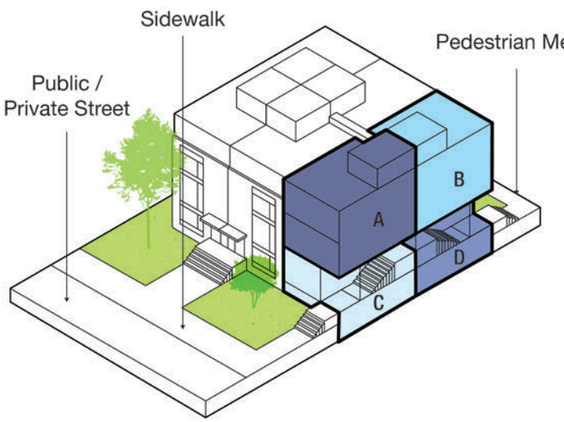
aw. Where a vehicle driveway is present at the front façade of a townhouse unit, the setback to the garage door should be 6.0 metres to 7.0 metres. The remaining façade may extend beyond to the minimum 4.5-metre setback (including cantilevers above the garage door).



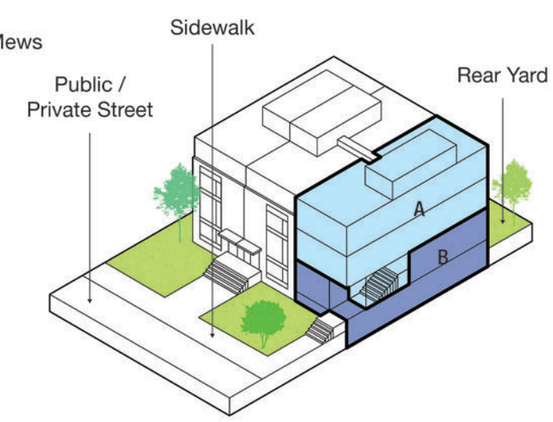
Townhouse



Back-to-Back Townhouse



Back-to-Back Stacked Townhouse



Stacked Townhouse

Figure 165: Illustrated townhouse types.

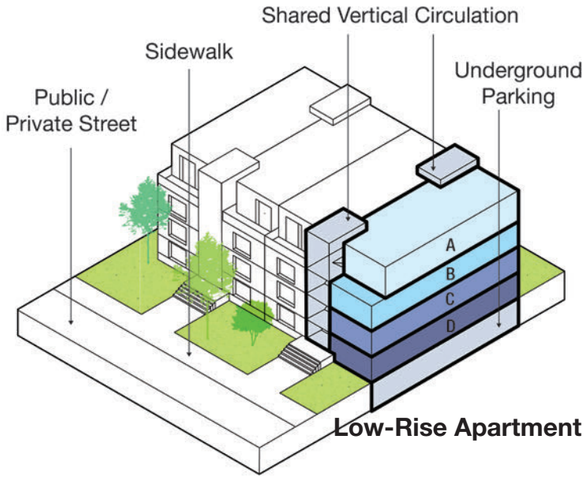
ax. Townhouse blocks within a lot should have a minimum front and/or rear separation distance of 11.0 metres.

ay. Front yard setbacks for townhouses should align with the prevailing setback of existing buildings in the streetscape. In the absence of a prevailing setback, front yard setbacks should range from 4.5 to 7.0 metres.

az. Rear yard townhouse setbacks should be a minimum of 5.5 metres from the rear property line. If a laneway is adjacent to the rear lot line, the rear yard setback may be reduced to 3.0 metres, so long as the total facing distance between building faces complies with minimum separation distances contained in this document.

ba. Where a rear laneway provides access to vehicle parking within an individual townhouse unit at grade, soft landscaping and tree planting should cover a minimum of 50% of the linear width and 80% of the depth of the rear setback from the laneway for any individual townhouse unit.

Figure 166: Stacked townhouses with a mews condition between rear units.



Low-Rise Apartment

Figure 167: Low rise apartments include shared vertical circulation stairs.

Low-Rise Apartment Buildings

bb. Low-rise apartment buildings are generally 3 to 4 storeys in height and contain multiple dwelling units accessed from interior common corridors at each level.

bc. Front yard setbacks for low-rise apartment buildings should align with the prevailing setback of existing buildings in the streetscape. In the absence of a prevailing setback, front yard setbacks should range from 5.5 to 7.0 metres to provide at-grade units with adequate privacy from the street and provide a layering of landscape elements.

bd. Rear yard setbacks should be a minimum of 7.5 metres from the rear property line

be. Low-rise apartment buildings should be limited in length between 50 and 60 metres to preserve block porosity, access to sunlight, and sky views.

bf. Low-rise apartment buildings with double-loaded corridors should have a maximum building depth of 25.0 metres to ensure adequate sunlight access into individual units.

bg. A minimum of 30% of the total lot area should be covered with permeable materials, of which half should be covered with soft landscaping.

Figure 168: Lower-scale mid-rise buildings of 3-4 storeys are encouraged to provide dense housing opportunities adjacent to existing neighbourhoods or within new communities.

bh. Where a residential use is located at grade within a low-rise apartment building, the unit and façade should be designed as ground-oriented, with an individual primary entrance accessed from grade.

bi. Pedestrian entrances to ground-oriented units within low-rise apartment buildings should be located 0.6 to 1.2 metres above grade to balance privacy with walkability and human scale. Entrances should connect to the adjacent sidewalk with stairs and a raised patio/landing that together protrude no more than 3.0 metres beyond the building face. Tall runs of exterior stairs are not permitted.

bj. Any building that incorporates, or could incorporate in future, a non-residential use in its ground floor, should be designed with a minimum first storey height of 4.5 metres to allow for flexibility of use over time.

Accessory Dwelling Units (Laneway Suites and Garden Suites)

bk. Accessory Dwelling Units (ADUs) are separate, self-contained residential units located on the same property as a primary dwelling. They can be physically attached or detached from the primary dwelling structure, and their permissibility depends on the zoning parameters for the lot.

bl. Rear and side yard setbacks, separation distances, height restrictions, maximum floor areas, encroachments, lot coverage, parking requirements, and other design parameters for ADUs are dictated by the applicable local zoning by-law.

bm. Detached ADUs are generally 1 to 2 storeys in height and may or may not also contain a vehicle garage at grade.

bn. In the case of an ADU being constructed at the rear of a lot adjacent to a public laneway, the ADU would be referred to as a Laneway Suite and its primary access may be from the laneway, the shared yard via an exterior walkway from the street, or both.

bo. In the case of an ADU being constructed at the rear of a lot where the rear lot line adjoins another lot, the ADU would be referred to as a Garden Suite and its primary access is from the shared yard via an exterior walkway from the street.

bp. ADUs should exhibit architectural excellence and be designed with high-quality materials.

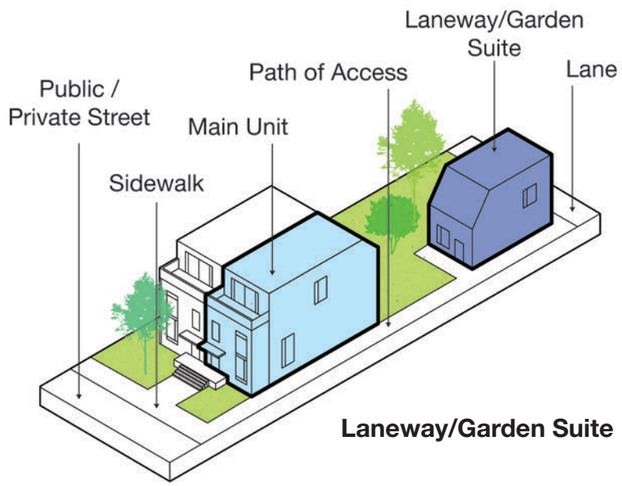


Figure 169: ADUs may include laneway or garden suites, so named depending on their orientation and frontage relationship.

bq. Pedestrian entrances to ADUs along a public laneway should be recessed from the lot line of the laneway by at least 1.5 metres to allow sufficient space to accommodate refuge and door swing areas within the property outside of the laneway.

br. Laneway Suite façades facing a public laneway should be recessed from the lot line of the laneway by 0.5 to 1.5 metres to allow for a shallow landscaped area in front of the ADU.

bs. Where parking is provided between a Laneway Suite and the public laneway, a minimum rear setback of 6.5 metres should be provided along a portion or the full length of the lot to facilitate parking.

bt. A minimum separation distance of 3.0 metres between the primary dwelling and the ADU should be provided.

bu. Lighting, glazing, balconies, and landscaping are recommended along the front (laneway-facing) façade of a Laneway Suite to establish a human-scaled residential frontage along the laneway.

bv. Locations of glazing and balconies at the rear of a Laneway Suite (facing the primary dwelling) should aim to preserve privacy for both dwelling units. Large expanses of glass are discouraged along this frontage.

bw. Locations of glazing and balconies at the front of a Garden Suite (facing the primary dwelling) should balance privacy for both dwelling units with access to natural light for occupants of the Garden Suite. The use of clerestory, perpendicular bay window, and frosted glazing is encouraged in addition to clear glazing to maximize light access while preserving privacy.

Figure 170: Laneway suite providing overlook from a second storey juliette balcony.

Figure 171: Laneway suite with cantilever over parking pad.

6.4 Mid-Rise Building Guidelines

Mid-rise buildings of 4 to 10 storeys can increase housing supply in the Region within strategic locations on arterial and collector streets and within designated Intensification Areas. To provide increase housing supply, mid-rise development applications which closely reflect the guidelines should result in reduced approval processing time.

Mid-rise is a desirable housing form, and should prioritize sustainable, appropriately scaled, well-designed and affordable design. Mid-rise housing on commercial main streets can include retail uses at grade, allowing residents to live, work and shop in place. These guidelines are intended to promote climate responsive and financially attainable buildings to build, buy and rent. In addition, the guidelines promote architectural design excellence for buildings, site and public realm design.

To support affordability and design flexibility, the guidelines propose best practices for creating simple building forms, and where feasible, reducing or eliminating underground parking requirements. Reducing building terracing to upper building levels will help lower construction cost and decrease carbon emissions. Standard sized, compact multi bedroom units will also enable simpler, more affordable building forms.

Figure 172: Mid-rise buildings are encouraged to provide dense housing opportunities adjacent to existing neighbourhoods or within new communities.

Best Practices:

- **Simple, Climate Responsive Building Forms:** Minimize building terracing to upper levels above the sixth floor to reduce overall building massing, and to reduce higher embodied carbon emissions. Consider opportunities for a primarily mass timber building project, with limited concrete structure and underground parking.

- **Green and Human Scale Lower Building Design:** Mid-rise street frontage design should establish a soft landscaped boulevard and building frontage. Substantial tree planting and significant on-site landscape will support a green development approach, reflective of the rich agricultural and natural heritage of the Region.

- **Human Scale Lower Building Design:** Design the first two to four levels of the building design to reflect and complement an existing context, or where there is no existing context, ensure the base level of the building reflects a finer grain architectural scale through flexible design, that allows architects and designers to achieve design excellence for the building as a whole. Promote retail where appropriate at grade within a tall ground floor.

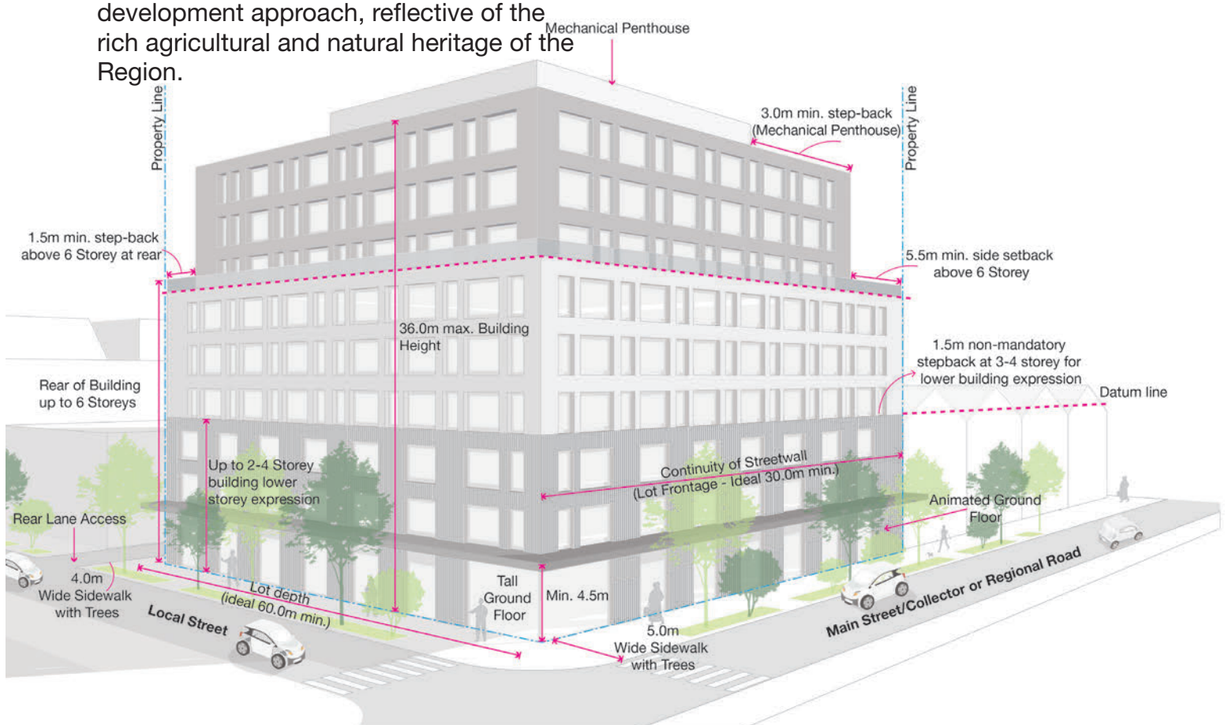


Figure 173: Sample mid-rise building illustrates guidelines.

- **Upper Building Design to Reduce Building Mass:** Allow the building street wall to rise up to a maximum of six storeys. A minimum of one building stepback should be provided above the 6th floor to help reduce the building mass and promote access to sunlight, view and privacy between properties.

- **Screened Service and Loading Areas:** Locate access to service and loading areas from side streets and/or rear lanes away from the main street, to minimize visual and physical disruption of the public street and promote safe flow of pedestrians. Loading and servicing areas should be located at the rear or sideyard of properties, contained within the building envelope, or screened from public view.

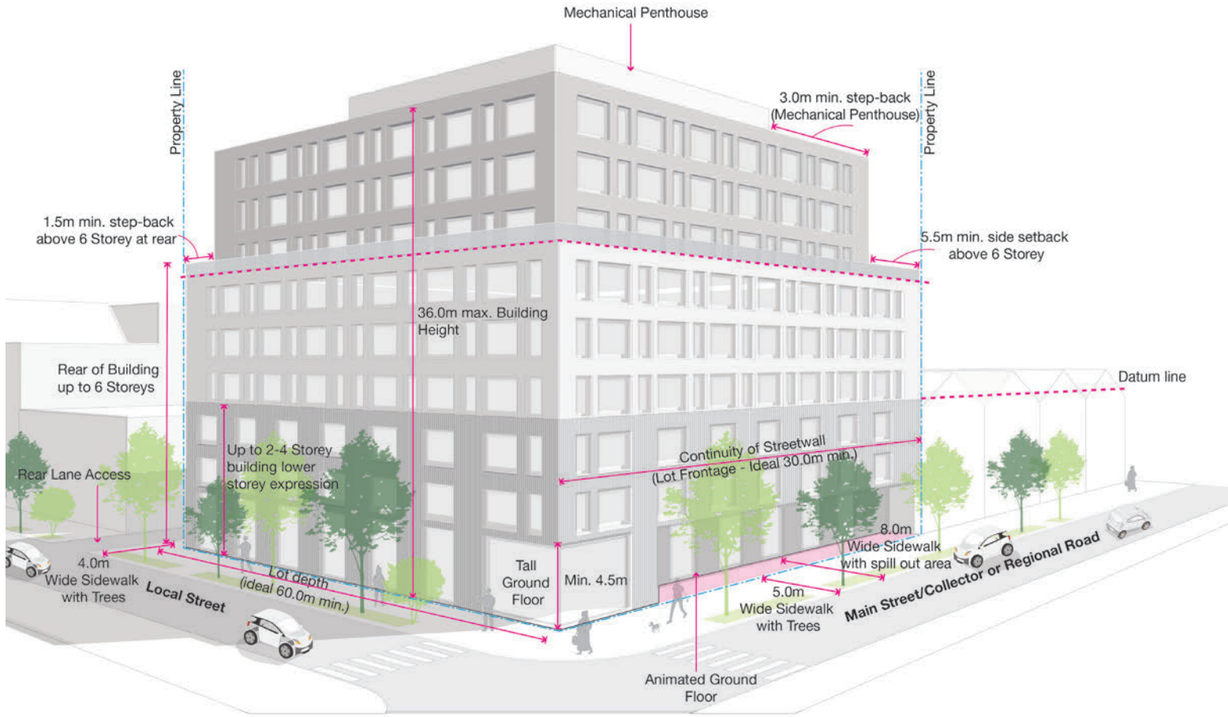


Figure 174: Sample mid-rise building indicating increased setback along main street.

- **Site Design to Activate the Street and On-site Outdoor Areas:** Create active site areas within building setbacks, including ground level terraces, courtyards, play spaces and gardens for the enjoyment of residents and visitors. Front yard setback areas should be designed to blend with the street design to provide wide, tree-lined boulevards, grade-related residential units, and/or "spill-out" areas for retail, restaurants and cafes.

Street Wall Guidelines:

a. Mid-rise buildings should be designed to create a defined street wall height of 3 to 4 storeys, to reflect an existing context or create a lower "human-scale" datum in the street wall.

b. A street wall height may extend up to 6 storeys without building stepbacks or terracing, when the lower scale building expression is well-defined.

c. Where mid-rise buildings are adjacent to heritage properties, the street wall height of the mid-rise building should reflect the existing street wall height.

d. Street walls should be designed with human-scaled articulation, including establishing datum lines and vertical bays to break up the massing.

Figure 176: Locating terraces above street wall stepbacks is encouraged.

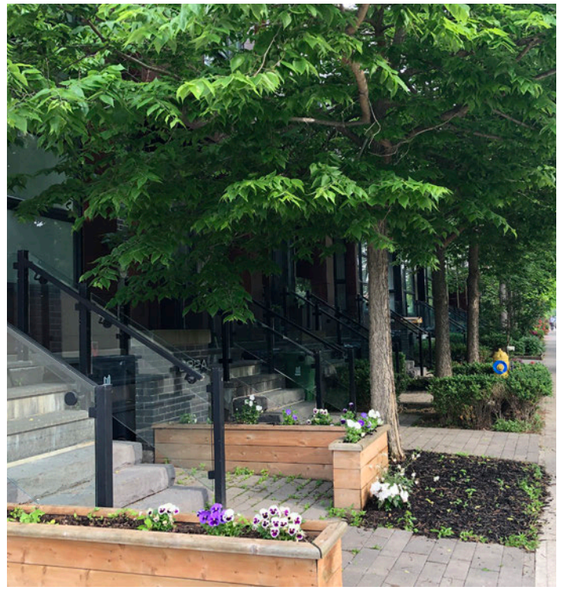


Figure 175: Trees within front setbacks can provide additional privacy and shade in the warmer months.

e. Mid-rise buildings on corner sites should frame and address both streets. Increased front yard building setbacks up to 4.5 metres may be considered to provide additional landscaped open space and paved area in coordination with the streetscape design. Deeper building setbacks may be located at retail frontages or other key building areas including building entrances and forecourts, corner retail, community spaces or other key building areas.

f. Street wall breaks as mid-block connections should be provided where planned or existing amenities such as parks, natural open space, public buildings or other public amenities are located at the rear of the property.

g. Sideyard building elevations at a zero lot line can be up to 6 storeys to create opportunities for a continuous mid-rise street wall. The sideyard building face should not include windows to preserve privacy to an existing adjacent property, or to allow for a future building to directly abut the blank wall. Blank walls should include high quality materials consistent with the whole building and consider careful patterning or other design expression to improve the blank wall.

h. Breaks in the front building street wall are encouraged to provide access to on site outdoor amenity areas, gardens or courtyards. They may also be used to sub-divide the street wall where it exceeds 60 metres or allow for shared access between adjacent lots.

Figure 177: Mid-rise building setback diagram.

Setback Guidelines:

i. Front yard setbacks should generally be within a range of 0 to 4.5 metres. In circumstances where the public right-of-way is narrow, or building forecourts, front gardens or plaza spaces are planned, deeper setbacks for those areas of the building may be considered.

j. Patios and terraces at grade-level should have barrier free access, enclosure that provides clear site lines into the space, be well-lit and incorporate opportunities for edge planting.

k. Portions of a mid-rise building may project into the front setback by 2.0 to 2.5 metres where they contain active building uses, such as community facilities, commercial and retail uses, and interior amenity spaces.

l. Building projections into the front setback may be included up to the first 4 storeys, for a maximum of 50% of the street wall width. The projection can be provided as a single building expression, or within a series of 'bays' that express grade level uses, the building form and function and the objective of achieving human scale within the lower building design. A "fine grain" building scale should be achieved at the discretion of the architect, through a variety of façade designs and materials.

m. Front yard building projections should be balanced with streetscape design and front yard landscape design, to promote usable outdoor space along the building frontage.

n. Rear setbacks of 7.5 metres are recommended and may include outdoor amenity spaces or laneways as required.

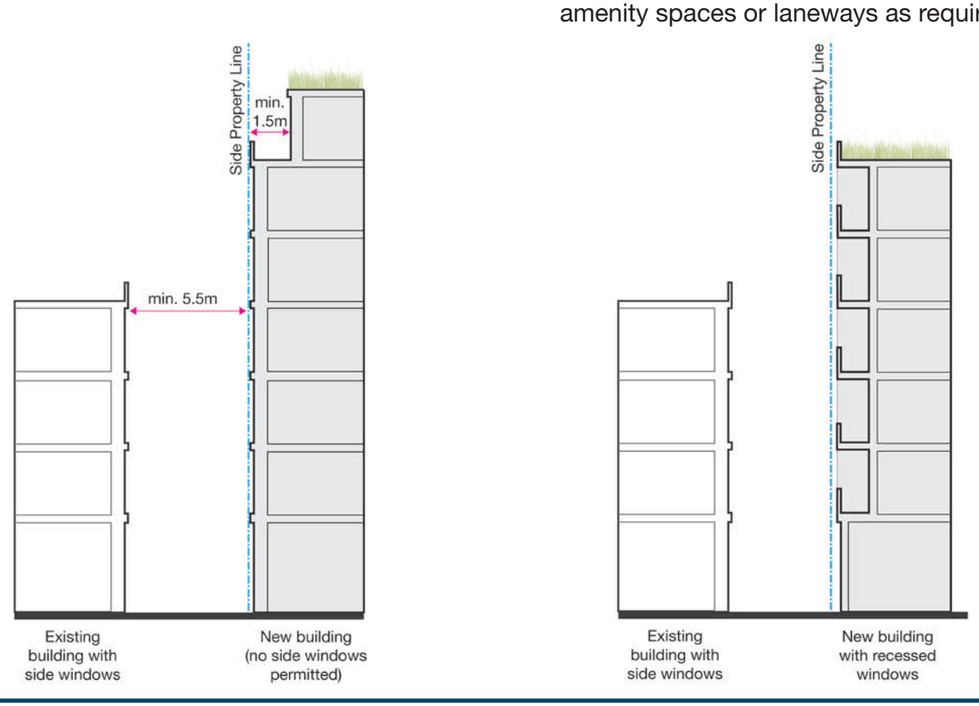


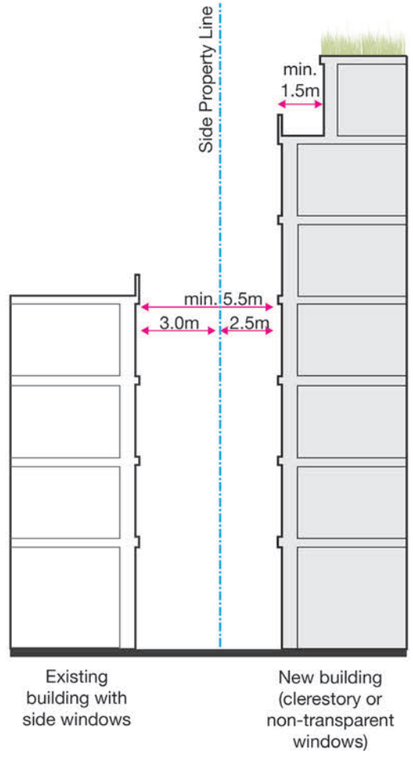
Figure 178: Mid-rise building section diagrams illustrating potential sideyard conditions above the sixth storey.

Stepback and Separation Distances:

o. Midrise buildings taller than 3 to 4 storeys, should have a well-defined lower building expression that reflects either an existing condition or establishes a new one, that reflects the fine grain of Niagara's main streets. Architectural design to achieve the lower building expression is recommended to be flexible to promote design excellence.

p. A 1.5 metre minimum front and rear stepback should be provided above the 6th storey to reduce the perception of height and reduce down drafts.

q. A sideyard setback of 5.5 metres should be provided above the 6th storey, to ensure a minimum separation distance of 11.0 metres, for privacy and access to sunlight between neighbouring properties.



Height Guidelines:

r. Mid-rise building heights are generally between 4 to 10 storeys, and building heights should be determined by context and adjacent land use.

s. Lower mid-rise buildings, 3 to 6 storeys are recommended where they abut low rise neighbourhoods.

t. Taller mid-rise buildings, 7 to 10 storeys should fit where sites abut major arterial and collector streets, within large redevelopment sites, and within the Region's Intensification Areas and Mobility Hubs.

u. Additional height may be acceptable for mid-rise buildings on sites within PMTSAs, MTSAs and designated Intensification Areas at the discretion of the municipality.

v. The height and massing of mid-rise buildings should transition to existing amenity areas or outdoor spaces.

Ground Floor Guidelines:

w. Ground floor heights of 4.5 metres, measured floor-to-ceiling, are recommended to allow for flexibility of non-residential uses.

x. Primary building entrances should clearly address the street with large entry awnings and provide visibility to interior lobbies to allow for safe and convenient arrival and departure from the building.

y. Pedestrian entrances to parking and service areas within the building should be combined with visible communal areas such as exercise areas or meeting rooms to provide casual surveillance opportunities.

Figure 179: Mid-rise building section diagrams where existing adjacent buildings have side windows.

z. Where ground floor units are proposed, two-storey units are recommended to allow privacy for bedrooms at the upper level.

aa. Ground floor units should have individual at-grade access where possible. Planter beds or screening should be provided to balance the need for privacy and visibility.

ab. Commercial at-grade units should be designed with reference to Section 7.1 of these guidelines.

Projection Guidelines:

ac. Mechanical penthouses on the roof of mid-rise buildings should be architecturally screened from view by enclosures that are designed to fit harmoniously with the building massing and materiality.

ad. Mechanical penthouses should not be subject to height regulations in the zoning.

Figure 181: Two-storey townhouse units incorporated into a mid-rise form allow for privacy of bedrooms located at the second storey.

Figure 180: Design excellence and climate responsive design can be achieved through simple mid-rise building forms. Buildings integrated balconies and limited terracing can respond to a range of site conditions and lot sizes.

Figure 182: Taller mid-rise buildings are appropriate in strategic, transit-oriented locations throughout the Region.

6.5 Tall Building Guidelines

With housing intensification occurring in strategic growth areas throughout the Region and in proximity to Niagara GO Hubs and Transit Stations, guidance for tall buildings is increasingly important to promote design excellence that includes appropriate building massing, architectural expression and site design.

The Tall Building Guidelines provide direction to ensure adequate transitions to neighbouring properties. When followed as a collective set of standards, impacts to adjacent properties, parks and open space will be adequately mitigated. As Mid-rise buildings are typically up to ten storeys in height, with exceptions of wider right of ways, buildings taller than ten storeys are considered a tall building.

Best Practices:

- **Strategically Located:** Tall buildings are not appropriate everywhere. As urban areas within Niagara continue to evolve, opportunities exist for well-sited tall buildings in growth areas that are proximate to local and regional transit.
- **Landmarks:** Tall buildings should be considered for their landmark role in an urban setting. Often seen from wide distances, tall buildings can individually and collectively contribute to a distinctive community skyline. As such, tall buildings should promote architectural variety and excellence in all aspects of the building, including the roofline.
- **Thoughtful Composition:** Tall buildings may be expressed with a base building and tower, or as a single thoughtfully composed form that positively contributes to the urban realm. Tall building composition should consider transition to mid-rise and low-rise apartments to mitigate the impacts of wind and shadow on surrounding areas.

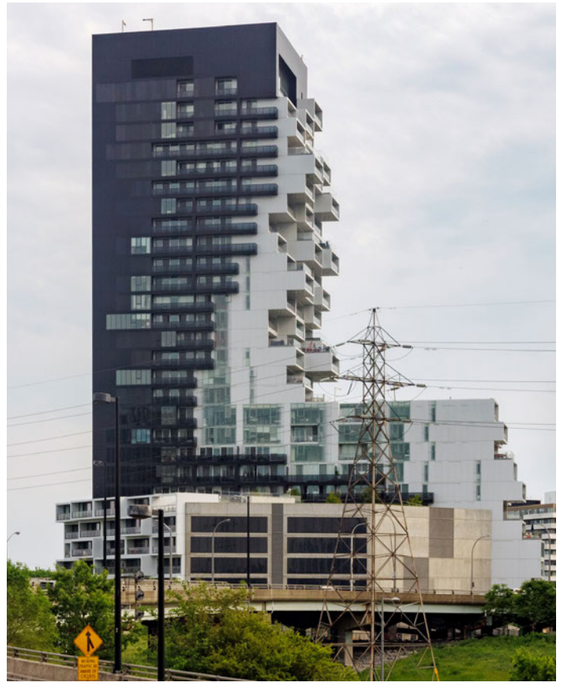


Figure 183: The architectural expression of towers can provide landmarks and create visual interest in the skyline.

Design Guidelines:

a. The design of tall buildings should minimize adverse view and privacy impacts to neighbouring properties.

b. The design and massing of tall building components should mitigate adverse shadowing and wind impacts on the site, public realm, and neighbouring properties.

c. The ground floor uses, façade design, and adjacent pedestrian realm features of tall building components should contribute to animation of the public realm with active uses, transparent glazing, frequent entrances, and high quality hard and soft landscaping.

d. Buildings facing the street, or building areas at grade that are publicly visible, including service and loading areas, should be well co-ordinated with the public boulevard and other outdoor site areas including outdoor amenity areas. These outdoor areas should include high-quality hard and soft landscaping.

e. At grade, tall building components should be designed with a minimum ground floor-to-ceiling height of 4.5 metres to allow for flexibility of use for lobby, amenity, commercial, and other uses. Taller ground floor heights are permitted and can accommodate mezzanine levels where applicable.

f. Ground-related residential units are encouraged where appropriate, such as the side streets of commercial/retail corridors, and should be 2 storey units to allow for greater privacy at-grade.

g. Pedestrian entrances to ground-related residential units should be located 0.2 to 0.6 metres above grade to balance privacy with active frontages. Entrances should connect to the adjacent sidewalk with stairs and a private amenity area that together protrude no more than 3.0 metres beyond the building face.

Massing Guidelines:

h. Tall buildings are generally composed of a building base, middle, and top however a wide range of architectural expression to express these components is encouraged, particularly in response to existing context, including heritage, natural and cultural contexts.

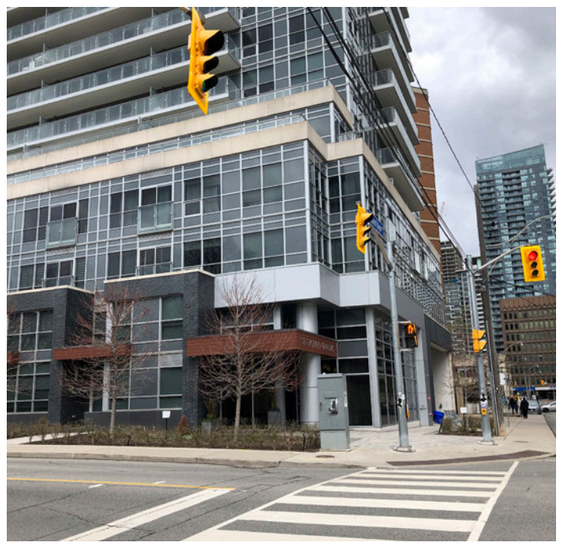


Figure 184: Balconies may project into setbacks above podium elements.

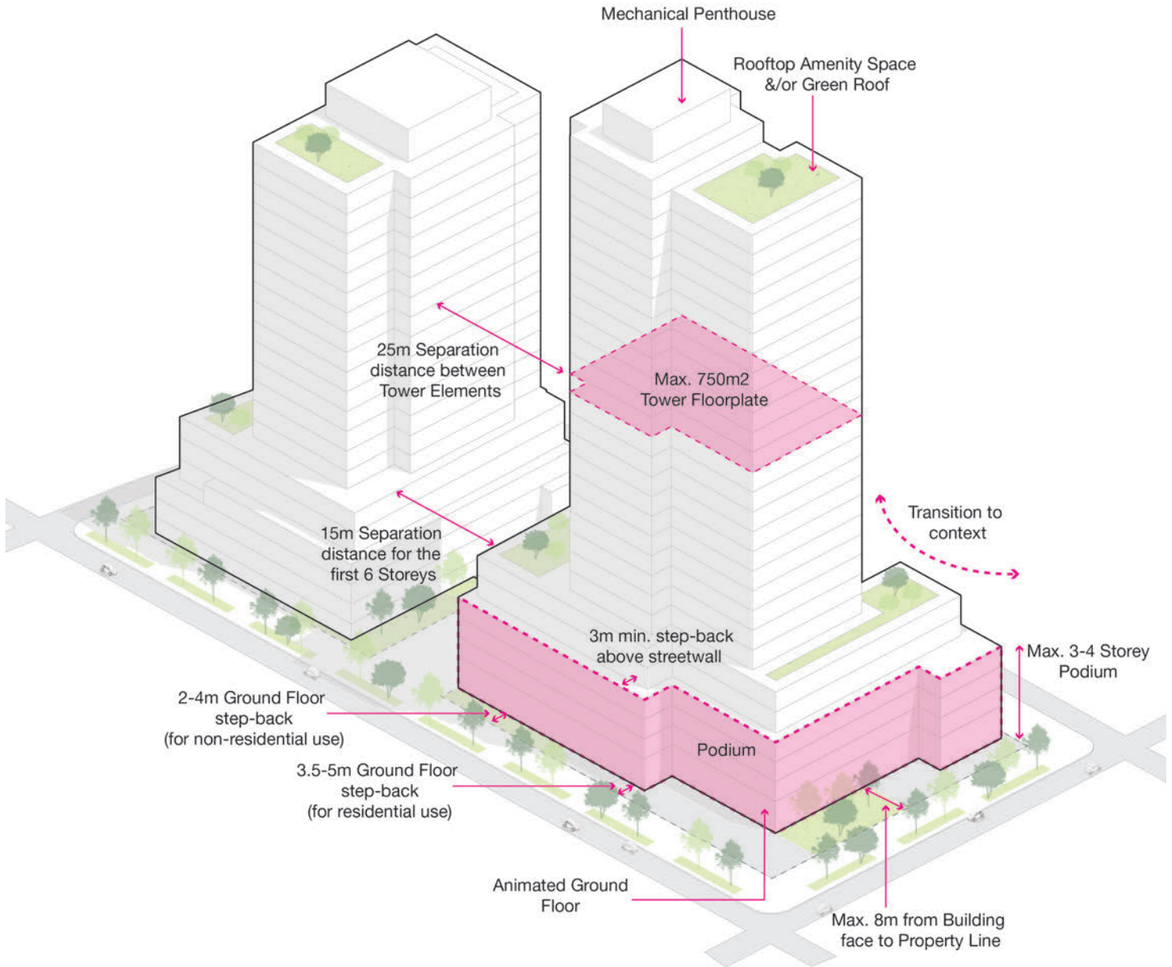


Figure 185: Tower separation guidelines ensure sky view is maintained from the public realm and privacy is maintained between towers.

i. Where a tall building is proposed within an existing streetscape with an established primary street wall height, a base building should be incorporated into the design which reinforces the existing primary street wall with a similar setback and height. Above the primary street wall, a minimum 2.5-metre-deep step-back should occur.

j. Tower floor plates above a base building should be limited to a maximum of 750 square metres to mitigate the perceived mass of the upper building, reduce shadow impacts on adjacent lands and to maximize sunlight access and sky views between adjacent tall buildings.

k. In specific cases, floor plates for tall building floor plates can be increased up to 850 square metres where it can be demonstrated that the site size and location, architectural design and other design measures successfully mitigate impacts described in guideline (g) above.

l. Tall buildings within waterfront development areas are recommended to retain slender tower floor plates of 750 metres or less, and to increase minimum separation distances between adjacent towers to 30 metres.

m. Tall building tower elements should be located and oriented to maximize sky views and to allow appropriate privacy and dynamic skylines by providing:

- Minimum separation distances of 25 metres between all tower elements.
- Minimum side and rear setbacks of 12.5 metres from the associated property line or from the centre line of a rear laneway.
- Building heights that respond to the existing and planned context, including consideration of shadow effects.

n. Where tower elements are integrated into a base building podium, the base building podium should have a height between 2 and 4 storeys. Any podium taller than 4 storeys should be no taller than 6 storeys where the building design demonstrates massing and architectural design that integrates well with the site and local context.

o. Protruding balconies are recommended to provide private amenity space and passive shading for southwest facing units.

p. Ground floor awnings are recommended to provide protection from inclement weather.

Generally-Required Setbacks:

q. Ground floor setbacks should respond to grade level use and minimum boulevard widths to promote adequate width for pedestrians, outdoor restaurant and café seating and boulevard furnishings and landscape. Ground floors with retail should set back to achieve a minimum 5.0 metre boulevard width from building face to curb edge.

r. Ground floors with residential uses should provide an additional front yard setback of 1.5 to 3.0 metres to promote privacy and transition between the public and private residential zone. Required setback widths will vary by unit design, and the inclusion of private front terraces, landscape and low wall enclosures, and garbage/recycling bin storage. Small grade changes of 1.5 metres maximum can assist in promoting privacy to residential units facing a street.

Setback Exceptions:

s. Tall buildings that extend vertically from grade to the top of the building without incorporating a step-back should provide a front setback 3.0 metres greater than the applicable Generally Required Setback.

t. Tall buildings located on major pedestrian streets, arterial roads, or rights-of-way greater than 35 metres in width should provide a front setback 3.0 metres greater than the Generally Required Setback to accommodate an expanded pedestrian realm and space for additional landscaping and tree planting.

u. Building projections that contain active building uses (i.e. retail, community uses, interior amenity spaces, residential lobbies) on the first two storeys may extend into the required setback for a maximum of 50% of the total building frontage. These building projections should still maintain a minimum 4.0 metre boulevard clearway between the building face and street curb for a barrier-free pedestrian sidewalk (min. 2.1metres), and street poles/boxes, bicycle parking or other obstructions.

v. Tall Buildings are encouraged to incorporate ground floor setbacks greater than the Generally Required Setback in proximity to street corners, transit stops, building entrances, and other locations that anticipate greater pedestrian activity.

w. Where tall buildings extend vertically from grade or reduce the Generally-Required Setback, structural canopies should be provided to mitigate wind down drafts above the pedestrian level.

Projections and Step-Backs:

x. Tall Buildings that incorporate a base building and tower form should include a step-back of at least 3.0 metres between the base building and tower that occurs between 3 and 7 storeys above grade.

y. Upper storey projections may be incorporated along a tall building's front façade, projecting from the main building face by a maximum of 2.0 metres, beginning above a height of 7.5 meres, and occupying a maximum of 80% of the building frontage.

Mechanical Penthouses:

z. Mechanical penthouses on the roof of tall building components can exceed the allowable total building height by a maximum of 5.0 metres.

aa. Mechanical penthouses on the roof of Tall Building components should be screened from view using high quality enclosures that are designed as part of the overall building composition.

See Also:

- Niagara Model Urban Design Guidelines Section 5.3 Building Location and Orientation, 5.5 Interface with Cultural Heritage Properties, 5.6 Outdoor Amenity Space, 5.7 Micro-Climate, Sunlight, Views and Privacy, and 5.10 Driveways and Parking

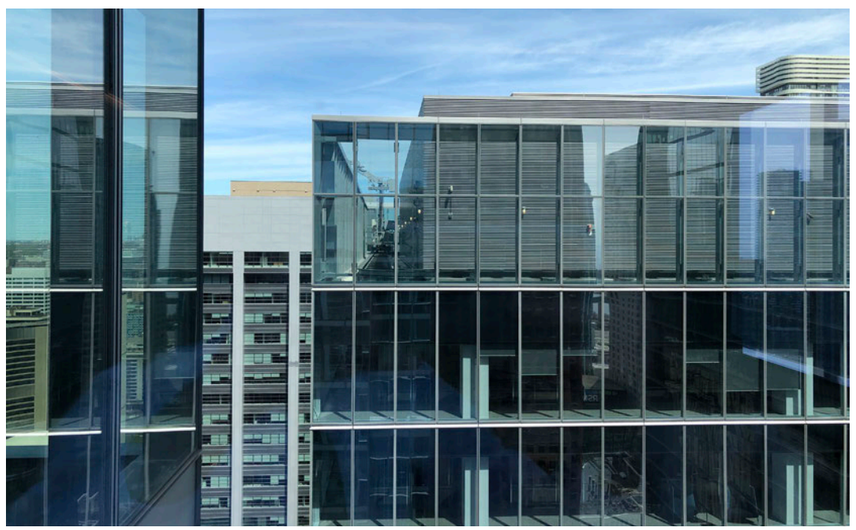


Figure 186: Mechanical penthouses should be screened from view.

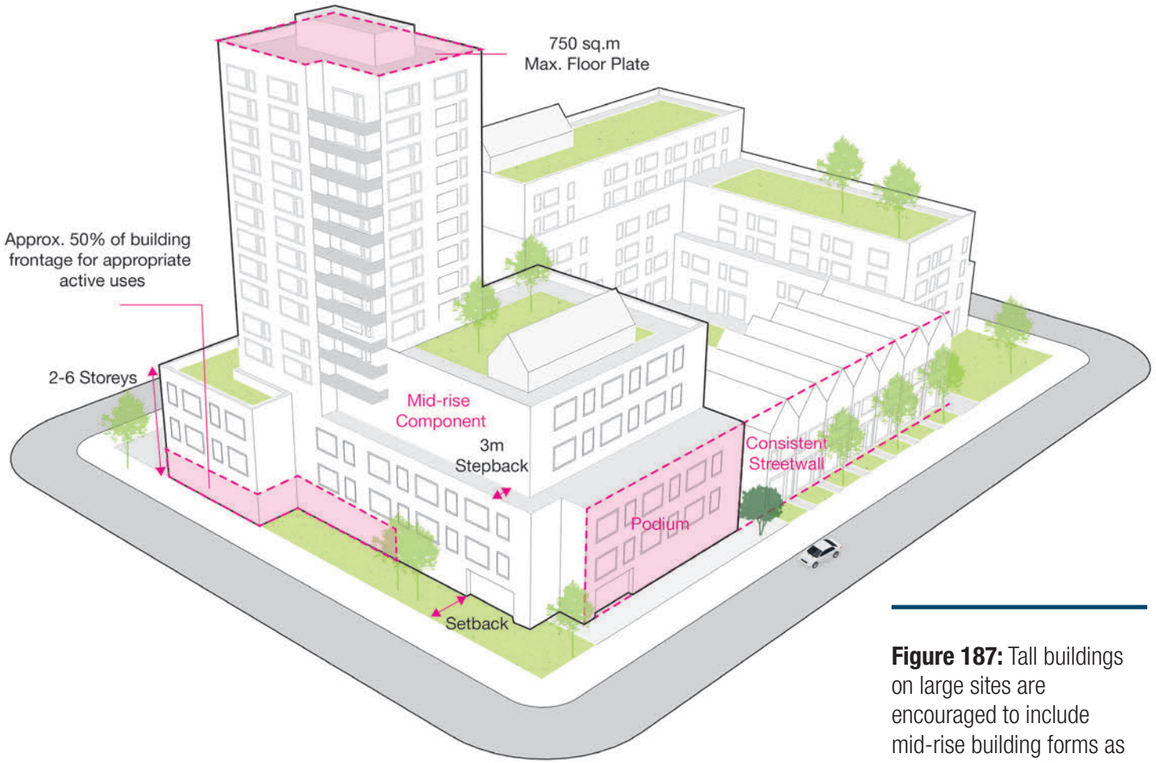


Figure 187: Tall buildings on large sites are encouraged to include mid-rise building forms as a means to transition to lower scale areas including residential neighbourhoods, parks, natural open space or other sensitive land uses.

7.0 Building Types

Mixing a range of uses within buildings, and across sites, and blocks contributes to the creation of vibrant and complete communities and neighbourhoods within the Region of Niagara. A mix of uses creates vibrant and diverse economies that are resilient to change and encouraging of growth. Building uses should ensure compatibility with adjacent and surrounding uses through key considerations for site and building design.

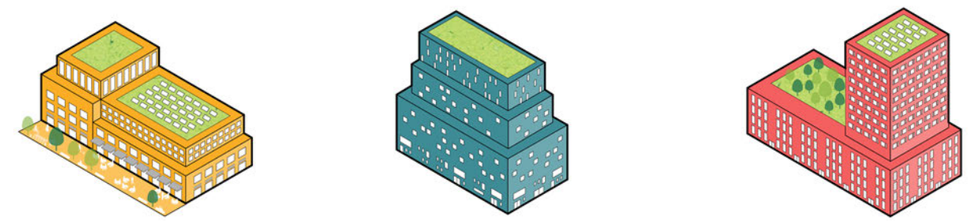


Figure 188: Building type matrix

7.1 Commercial Buildings

Commercial buildings include personal services, retail, restaurant, and other business-related uses. Commercial uses can be included within single-use commercial buildings or as part of a mixed-use building in low-rise, mid-rise or tall building form.

Best Practices:

- **Commercial Variety:** A variety of commercial uses, including large and small format grocery stores and retail establishments are needed in a complete community.
- **Aesthetic Enhancement:** High quality building materials and architectural expression will enhance the community's image.

Figure 189: Commercial buildings can activate the street and provide overlook.

Design Guidelines:

a. The design of commercial building should be compatible in design with the surrounding character of the community, including considerations for materials, building massing, and architectural features.

b. A minimum building height of 2 storeys is encouraged for commercial buildings to promote compact development and a high-quality public realm.

c. Commercial buildings should use high quality building materials and incorporate significant glazing at grade to contribute to an aesthetically pleasing environment and ensure visibility into buildings from the public realm.

Urban Commercial:

d. Urban commercial buildings should frame adjacent streets and provide direct access to adjacent public rights-of-way to encourage visibility and accessibility.

e. Opportunities to provide spill out retail spaces and patios should be pursued to enliven the adjacent public realm.

f. Building lighting and the use of canopies and weather protected areas should be incorporated in the design of the building along building frontages abutting the public realm.

g. Commercial buildings should provide enhanced landscape treatments including trees, planting beds, and street furnishings.

h. Site furnishings, canopies, and landscaping should frame entrances and pick up/drop off areas.

i. To ensure barrier free access and ease of mobility, public realm elements and spill out retail space should not encroach on the pedestrian clearway.

j. Temporary patios may be accommodated in the public right-of-way at the discretion of the municipality.

k. Commercial units in urban settings should support walkability by providing for a number of narrow storefronts with frequent entrances accessed from the sidewalk.

Figure 190: Commercial buildings are found at a variety of scales in Niagara.

Figure 191: Vehicle-oriented commercial uses include drive through restaurants. Efforts should be made to incorporate landscaping.

Vehicle-Oriented Commercial:

l. Commercial units should generally avoid irregular shapes. L-shaped units are permitted, particularly for larger commercial spaces.

m. Commercial units should generally provide a storefront to depth ratio of 1:3 to help animate the street and provide usable commercial units with appropriate space for back of house requirements.

n. Corner commercial units may provide a storefront to depth ratio of 1:1.

o. Uses such as car dealerships, drive through facilities, car washes and service stations should exhibit a high quality of design to contribute positively to the public realm.

p. Vehicle-oriented commercial facilities should be connected with pedestrian walkways and sidewalks. Entrances should be visible and accessible from the public realm. Curb cut lengths should be minimized as much as possible.

q. High-quality landscaping elements should be provided at the principle entrance of the building.

r. Where possible, landscaping elements should be used to direct traffic circulation and reinforce wayfinding on site.

s. Where adjacent to parks, residential uses, and open spaces, vehicle oriented commercial facilities should be buffered by acoustic screening and landscaping as well as appropriate separation distances.

t. Tree planted landscape buffers with a width of 3.0 metres or more should be applied to the edge of a vehicle oriented commercial site.

u. The main building entrance of drive-through commercial buildings should be located in a manner that ensures pedestrians accessing the restaurant do not have to cross the stacking lane.

v. Stacking and drive-through lanes should be located at the side or rear yards and should not be located between the building and the right-of-way.

w. Double-stacking lanes are discouraged for vehicle-oriented commercial buildings.

x. Entrances to stacking lanes should not be located near an intersection.

y. Vehicle stacking spaces should be provided for a minimum of 10 car lengths for drive-through restaurants. Sufficient length is required to ensure that stacking lanes do not spill into adjacent streets.

z. Order boards and intercoms should be designed to minimize noise impact on adjacent residential or institutional areas. A noise study may be required by the municipality to assess the proposed operations.

aa. Strong architectural features such as canopies are recommended to enhance the design of the drive-through use and limit noise and light spillover to adjacent uses.

Figure 192: Canopies can provide shade for vehicle-oriented commercial buildings.

7.2 Multi-Unit Residential Buildings

Multi-Unit Residential Buildings are identified as containing three or more dwelling units. They include a range of building types such as apartment buildings and hybrid building forms. They may include a mix of uses or be reserved for residential purposes. Multi-Unit Residential Buildings include rental and/or condominium tenured buildings and range from low-rise to tall buildings.

The development of Multi-Unit Residential Buildings should consider its surrounding context, contribute to an animated public realm, leverage existing infrastructure, employ a high degree of design excellence and ensure for appropriate transitions to adjacent uses.

Figure 193: Multi-unit residential buildings should provide housing for a variety of household sizes.

Best Practices:

- **Generational Housing and Family Friendly Housing:** Incorporate a full mix and range of housing that supports a variety of household sizes, meets growth projections and housing needs of residents across incomes, ages and abilities.
- **Pet Friendly Housing:** Encourage development that is supportive of a growing pet population and consider on site pet amenities.
- **Amenity Spaces:** Include a variety of amenities in the design of Multi-Unit Residential Buildings that is inviting, inclusive, and accessible.

Design Guidelines:

a. Orient Multi-Unit Residential Buildings to frame and define the street edge and enhance the public realm through activation.

b. Employ landscaped setbacks along the building perimeter that provides a transition between public and private uses and offers an opportunity to enhance and activate the public realm.

c. Provide clear pedestrian walkways throughout the development that connects to building entrances, parking areas, and outdoor amenities space. These paths and areas should be well lit and include landscaping that creates visibility and promotes safety, accessibility, and comfort.

d. Primary building entrances should be clearly visible and accessible from the public right-of-way.

e. Parking should be located at the rear of side lots of development and screened from public view.

f. Where feasible, buildings should include private balconies, terraces, or porches to provide private individual amenity space.

g. Integrate pet friendly amenities into higher density development, this may include pet wash areas and/or pet relief amenities.

h. Include multi generational and family friendly housing to address the needs of larger families, and people of all ages and abilities. Consider the mobility needs of older individuals and persons with accessibility needs by incorporating items including barrier-free design.

i. Multi-Unit development should include the following:

- A mix of 2-bedroom and 3- bedroom units to accommodate larger household sizes in mid-rise and tall buildings.
- Unit types and ratios will align with housing need as identified through housing strategies, planning processes, local needs assessments and market studies.
- Two bedroom units should be a minimum of 90 square metres.
- Three-bedroom units should be a minimum of 106 square metres.
- Unit size floor area should be measured from the interior side of the walls, excluding mechanical space

j. Standard unit sizes are important to ensure for adequate space and use, however, flexibility should be employed in relation to how designers arrange unit elements which may result in a variety of unit sizes, depending on factors including the layout and the efficiency of connecting spaces such as corridors, and/or stairwells.

k. Outdoor amenity spaces should be designed with consideration for Section 5.6 of this document.

Relevant Policies:

- Niagara Official Plan (2.2, 2.3, 6.2)
- A Place to Grow- Growth Plan for the Greater Golden Horseshoe (2020)

7.3 Affordable/Attainable Residential Units

Affordable and attainable housing is crucial to a good quality of life. Affordable housing residential units should be well-designed to meet diverse needs and be accessible and dignified for all. The Niagara Region Housing and Homelessness Action Plan identifies a priority to increase the supply of affordable housing options for low- and medium-income households that is attainable and supports social, health, and economic well-being.

Figure 194: Affordable/attainable housing comes in many building forms.

Best Practices:

- **Accessibility:** Affordable housing units should be able to meet diverse needs. Common spaces and a proportion of units should be fully accessible, while all units should be designed with accessibility best practices in mind. A mix of units and unit design decisions should accommodate different needs and household types.

- **Dignity:** The building's architectural character should integrate with the surrounding market rate housing, and should be located near transit, groceries, and important community spaces. Common areas should be safe, healthy, and comfortable to stay and socialize in, and dignified access to essentials such as storage, laundry, and central heating and cooling should be provided.

- **Adaptability**: Design to accommodate tenants' changing needs with adaptable features, which allow for aging in place. This creates stability and dignity for those using the space and is more cost effective for housing providers in the long run.

Exterior Guidelines:

a. Affordable housing should be located in areas with urban amenities, especially near existing or planned transit and near key buildings such as community hubs or schools.

b. Architectural character, finishings, and quality, as well as landscaping, should be designed to fit well with the surrounding market rate housing.

Interior Common Area Guidelines:

c. Common areas and hallways should meet accessibility standards.

d. Building lobby areas should provide a comfortable area and seating to socialize or wait for pick up and drop off.

e. Provide central heating and cooling to every unit and include individual controls.

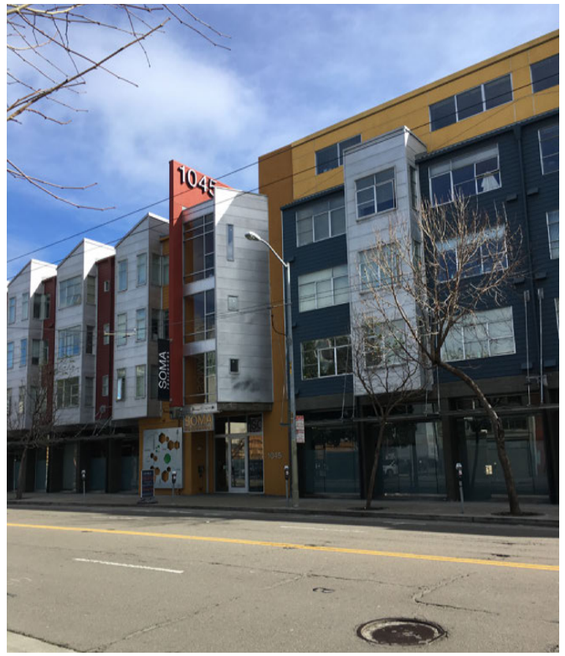


Figure 195: Affordable/attainable housing should have legible entrances and numbering.

f. Shared laundry facilities should be located above grade, be well-lit and visible from common spaces and hallways. Seating should be provided.

g. Storage facilities for bicycles, mobility devices, and strollers should be provided.

Unit Guidelines:

h. Include a mix of unit types and sizes in multi-unit developments to accommodate a range of incomes and household types. Prioritize units that are one bedroom, or three or more-bedroom units for families.

i. Unit proportions and sizes should meet the following recommendations:

- 40% of all housing units should have one bedroom and should be no less than 48.7 square metres (525 square feet) in area.

- 40% of all units should have two bedrooms and should be no less than 60 square metres (650 square feet) in area.

- 15% of all units should contain three bedrooms and should be no less than 84 square metres (900 square feet) in area.

- 5% of all units should contain four bedrooms and should be no less than 102 square metres (1110 square feet) in area.

j. Consider placing larger family units close to access to outdoor space and provide larger living, dining, and storage areas.

k. Units should provide amount of storage space proportional to the size of the unit, in addition to the minimum unit floor space.

l. Entries to units should be easily identifiable with numbering and lighting. Entry doors should have peepholes for safety.

m. In bedrooms, provide direct natural light with operable windows.

n. Consider designing kitchen and dining spaces in an open layout to allow for continuity and accessibility. Provide adequate storage and a kitchen pantry.

o. Affordable housing buildings should provide fully accessible units. Ideally, fully accessible units should be provided in a mix of unit sizes and be apportioned throughout the building.

p. Rooms should have a turning space of at least 1500mm by 1500mm.

q. Hallways that are more than 1100 mm in width.

Key Policies:

- Niagara Official Plan (2.3, 2.3.1, 2.3.2, 2.3.3)
- Niagara's Housing and Homelessness Action Plan

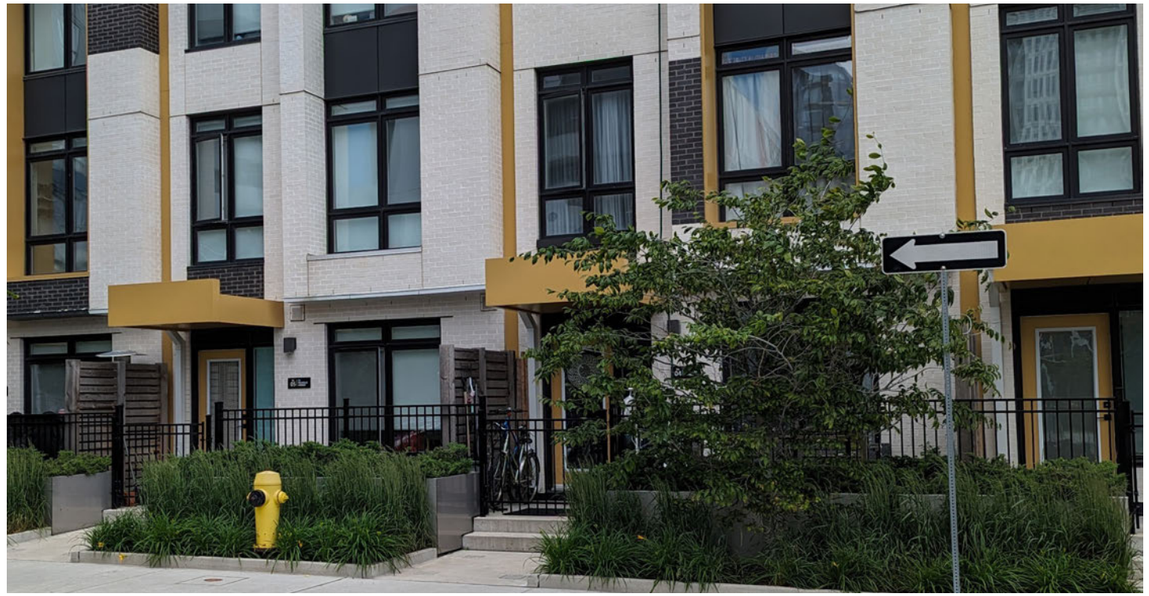


Figure 196: Affordable/attainable housing should include trees and plantings to enhance the site.

7.4 Mixed-Use Buildings

Mixed-use buildings can take the form of low-rise, mid-rise, or tall buildings, and should always include a number of other uses, including residential, commercial and retail, office, institutional, and/or community uses. Mixed-use buildings provide necessary community services and access to shops right where people live, supporting walkable, vibrant, and sustainable neighbourhoods. Of all building types, mixed-use buildings have the greatest degree of interaction with the public realm; therefore, building design and site design should be highly coordinated when planning for mixed-use buildings. Refer to sections 6.0 Building Design and 5.0 Site Design for further guidance on public realm and building elements discussed in this section.

Best Practices:

- **Relationship with street:** Streets that are walkable and engaging can increase commercial activity by slowing down passers-by as they engage with window displays or uses that spill out into the public realm.
- **Ground floor transparency:** The ground floors of mixed-use buildings should be visually interesting and utilize transparency, human-scaled building elements and materials, varied architectural treatments, and frequent building entrances to increase activity and porosity between the building interiors and the public realm. Opportunities for ground-floor uses to spill out into adjacent sidewalks or plazas are highly encouraged.

Figure 197: Mixed use buildings should promote ground floor transparency for retail or commercial units.

Design Guidelines:

a. Mixed-use buildings should have a minimum building height of two storeys to promote compact development.

b. The ground floors of mixed-use buildings should primarily include non-residential uses that are open to the public and contribute to an active public realm, such as restaurants, retail, and personal services uses. Consider locating large-format retail (e.g. large grocery stores) and offices on second storeys of downtown urban mixed-use buildings.

c. Residential and non-residential uses at the ground level should have individual unit entrances directly accessed from the street. Where a building contains residential or office uses on upper levels, such units may be accessed via shared lobby entrances.

d. Ground floor to ceiling heights should be a minimum of 4.5 metres and building systems should be designed to allow for flexibility of use over time. Where mixed-use buildings are low-rise in form, a reduction in the ground floor height to 4 metres may be considered.

e. Where an existing street wall has already been established, lower floors should follow the existing datum. Where this results in ground floor heights lower than recommended in (d), the use of double-height or mezzanine spaces are strongly encouraged to support flexibility in use over time, while maintaining the visual datum from the building exterior. Refer to Section 6.0 for further guidance on street wall heights and upper-level setbacks for different built forms.

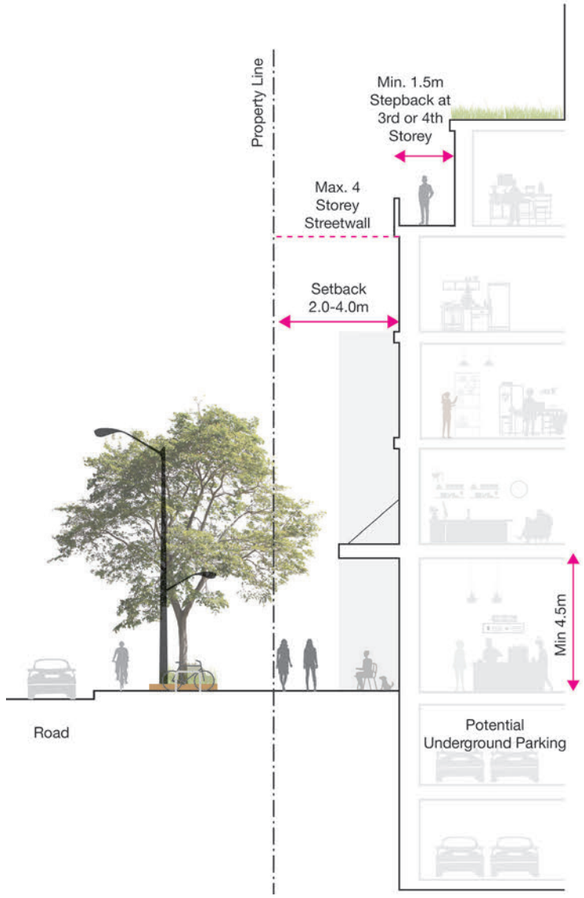


Figure 198: Mixed-use buildings should promote active public realms.

f. Mixed-use buildings with active ground floor uses should express a consistent street wall edge that encourages interaction with the public realm. Opportunities for commercial retail units to spill out into the public realm by way of increased setbacks, street-use permits allowing for activity on public sidewalks, or the provision of POPs, are strongly encouraged. Examples include patios, outdoor displays, and informal seating. Refer to Section 6.0 for further guidance on street wall heights and upper-level setbacks for different built forms.

g. Non-residential ground floor units should utilize a high proportion of transparent material to allow for views between the interior and exterior. Window displays should be engaging and create visual interest. Signage and displays in ground floor windows should be sized and placed so they do not obscure views between the building interior and exterior.

h. Window treatments that block sightlines between the building interior and exterior (such as frosted window film, large-format signage, or blinds) are strongly discouraged.

i. Multiple small commercial retail units are preferred along main streets to promote more porosity between the sidewalk and building uses, and to increase visual interest from the sidewalk. Where larger commercial units are present at the ground floor, multiple entrances along the building frontage are recommended.

j. Residential and non-residential ground floor units accessed directly from the street should be at the same level as the adjoining sidewalk to ensure straightforward, accessible entrances. Where a building frontage exists along a grade change, each entrance should be level to the sidewalk; it is encouraged that grade changes be dealt with on the inside of buildings to mitigate any blank wall conditions or other adverse impacts to the public realm.

k. Entrances should be located and design so that the door does not swing into the path of travel on either the building exterior or interior.

Figure 199: Niagara's streets are enlivened by mixed-use buildings from many periods of construction.

Lobby Guidelines:

l. Where residential and multiple commercial uses are located above grade, separate entrance lobbies are required.

m. Residential units above grade should be served by a residential lobby accessed from the primary façade. Lobbies should provide direct access to vertical circulation (i.e. elevators) and waiting areas, as appropriate. They also may include access to mail services, concierge, amenity spaces, and/or secured bicycle storage.

n. Lobbies should be visually differentiated from other building entrances through architectural design, articulation, and/or distinctive materials. Lobbies should provide good visual connections between indoor and outdoor spaces through the use of transparent materials.

o. Where a mixed-use building is located on a corner lot, or adjacent to a POPs or public space, the residential lobby may be accessed from the secondary facade. Avoid locating residential building entrances on rear facades.

p. Residential and non-residential ground floor building entrances should provide weather protection to allow people to adjust to/from outdoor conditions. Consider providing vestibules at building entrances with slip-resistant flooring, mats, and/or floor grates to mitigate the effects of wind and precipitation on the building interior.

Parking Guidelines:

q. Public outdoor bicycle parking should be located in prominent, highly-visible areas in proximity to building entrances. Locating bicycle parking under building overhangs or canopies where they will be protected from inclement weather is highly encouraged.

r. The majority of on-site visitor, employee, and resident parking should be provided underground. Surface parking should be limited to short-term convenience parking and should be located at the rear of the building away from the primary façade.

s. Indoor, secured bicycle parking with controlled access is strongly encouraged within mixed-use buildings for resident, employee, and other long-term users. Consider providing bike-wash and maintenance stations, and end-of-trip facilities with shared indoor bike parking areas.

Figure 200: Mixed-use buildings should promote active transportation.

7.5 Community Facilities

Community Facilities play a critical role in the formation of complete communities. These facilities may contain uses such as libraries, recreational centres, and places of worship. These spaces often form the heart of the community, functioning as a key focal point and contributing to civic pride. They are intended to be welcoming, accessible and inclusive.

These services can be incorporated within mixed-use buildings as private or public uses, operate as independent buildings and/or form part of a community hub facility. They should be designed as extensions of the public realm and ensure high standards of sustainability.

Best Practices:

- **Complete Communities:** Providing a range of services and amenities in close proximity to one another works to enhance the health and wellness of the overall community.
- **Sustainability & Accessibility:** Buildings should strive to be net zero or net zero ready and should consider the needs of people today without compromising future generations.
- **Future Proofing & Adaptability:** Community Services and Amenities should be future-proofed to accommodate potential demands of the growing community, enabling structures to have longer lifespans.

Figure 201: Community facilities should be designed for sustainability and accessibility (Orillia Waterfront Centre, Brook McIlroy, Photographer: Tom Arban)

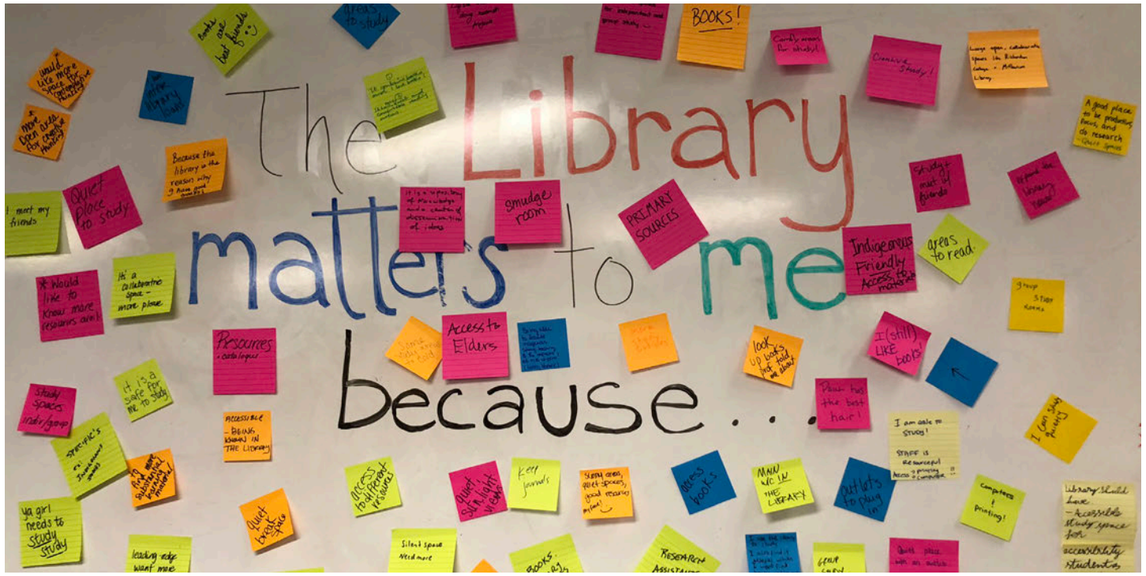


Figure 202: Community facilities such as libraries provide people of all ages and incomes with beautiful and accessible third spaces to enjoy.

Design Guidelines:

a. Community Facilities should be of a scale that is compatible with its surrounding context, including adjacent land uses, building heights and scale, and material use.

b. Primary entrances should be accentuated through design measures and architectural detailing including the use of weather protection such as canopies and/or awnings, lighting features, transparent glazing, and siting adjacent to outdoor public spaces or landscaped areas.

c. Incorporate the highest degree of accessibility throughout community sites and buildings, ensuring all areas are barrier free.

d. Incorporate public art features within atrium spaces or at entrance points to welcome community members.

e. Community Facilities should be solar ready and built with required piping and equipment to accommodate a rooftop solar power system. In addition, buildings should strive to achieve LEED Gold or higher levels, or a comparable standard of sustainability.

Figure 203: Community facilities should be complemented by outdoor space for community enjoyment. (Brook McIlroy)

f. Where possible, design Community Facilities buildings to be multi-storey to maximize the site area for the most efficient use of land and resources.

g. Community Facilities should function as landmark buildings with distinct architecture, high quality landscaping and design, and engaging public spaces.

h. Ensure Community Facilities are designed to conserve prominent view corridors and sight line to allow people to see and be seen and increase opportunity for passive surveillance.

i. Office and other active uses within Community Facilities should front onto streets, providing activation and natural surveillance within the public realm through transparent windows and other design measures.

j. Where feasible, increase the use of operable windows to organically illuminate uses and areas within Community Facilities including recreation, health, education, social and cultural spaces.

k. Locate Community Facilities in proximity to other civic uses and public amenities including schools and parks, and provide safe, accessible and active transportation connections i.e., pedestrian and cycling facilities between them where possible.

l. Community Facilities should incorporate design measures that encourage the use of active transportation i.e., walking and cycling, and promote use of public transit by including the provision of bicycle parking near building entrances, and providing direct pathways and connections from public transit stops to facilities.

Figure 204: Outdoor amenities for community facilities should be active year round. (Brook McIlroy)

m. Ensure buildings include weather protection along pathways adjacent to building edges, waiting areas and the perimeters of open spaces. These pathways should enable clear visibility to adjacent areas and be well-lit, promoting safety and comfort.

n. Interior spaces should be highly visible and include transparent glazing to promote safety and comfort and provide clear sight lines into outdoor areas. The design of interior and exterior public spaces should employ complementary materials and furnishings to appear cohesive and interconnected.

7.6 Employment Buildings

Employment buildings include offices, warehouse, manufacturing facilities and associated retail and ancillary facilities, or knowledge and innovation. These uses can be contained within low, mid-rise and tall building forms, with opportunities for incorporation with mixed-use buildings. Employment buildings and sites should be designed in a manner that minimizes adverse impacts like noise and odour and should transition appropriately to adjacent uses. Employment buildings should be designed in a manner that assists in achieving the employment density targets for employment areas set out by the Niagara Region Official Plan.

Best Practices:

- **Sensitive Interfaces:** Employment uses should be buffered from adjacent natural heritage areas, open spaces and residential areas. The location and quantity of parking areas and storage areas should be limited to minimum requirements and screened appropriately.

- **Sustainable Design:** Employment buildings should respect the natural environment through appropriate design and location of infrastructure and buildings. Natural features should be preserved and incorporated into employment area developments as key site features.

Figure 205: Employment buildings should make efficient use of their sites and be buffered by landscaping.

Design Guidelines:

a. Employment buildings are encouraged to be multi-storied to create compact and efficient building forms and promote ease of mobility through the site.

b. In order to maintain a reasonable transition between buildings in employment areas, a maximum building height of five storeys should be generally maintained. Buildings taller than five storeys should be examined on an individual merit basis.

c. Employment building should promote a high quality of building design and materiality. Glazing should be provided to reinforce entrance locations and provide natural light.

d. The primary façade of the building should face an adjacent street and should be framed by high quality landscaping.

e. Office uses should be oriented toward the street as part of the primary building frontage and may be accommodated at upper levels to promote efficient footprints. Manufacturing, warehousing, or back of house uses should be located along the rear or side of sites.

Figure 206: Employment buildings should promote architectural excellence in urban areas.

f. Buildings housing multiple tenants should be consistently design, including the use of consistent materials, façade design, and building articulation. Separate entrances along primary roadways are recommended.

g. Articulated building elements in the form of towers, bays or other structures should be used to emphasize the focal nature of employment areas, including those located at ‘gateways’ and at main street intersections.

h. At-grade retail uses including shops and restaurants are encouraged to support an active streetscape.

i. Building entrances should face the road and have well defined pedestrian access to the sidewalk.

j. Loading and service areas should be screened from public view through architectural screening, landscape buffering or a combination of such treatments.

k. Parking areas should occupy a maximum of 50% of the lot frontage, and not exceed two parking bays accessed by a single drive aisle in depth. Larger parking areas should be placed in the side or at the rear of buildings and include combinations of landscaping and pedestrian walkways to subdivide expansive areas of asphalt.

l. Employment buildings should provide sheltered bicycle parking near building entrances and direct connections to public transit stops and/or multi-use trails.

m. Pedestrian walkways and entry points should be clearly marked and should not cross parking areas or vehicular circulation routes, if possible.

n. Parking, storage, and loading areas should not be located along primary building elevations and should be located to the rear or side of the property. Such areas should be screened from public view and buffered by landscaping and other architectural elements.

Figure 207: Units within employment buildings should be legible and distinct.

o. Small areas of visitor parking, accessible parking spaces, and pick up/drop off areas may be permitted at the front of the building in employment areas. These areas should be buffered from the street through landscaping design.

p. Shared driveways are encouraged to reduce the number of curb cuts along the public right-of way.

q. Employment buildings within employment areas should provide common outdoor amenity spaces located away from areas of high noise and odour. Rooftop amenities or at-grade amenity spaces are encouraged.

Figure 208: Architectural screening and buffering can assist in buffering employment buildings from the public realm.

Transition Guidelines:

r. Employment areas facing residential areas should be a maximum of 3-storeys and compatible in mass and form to the residential built form.

s. Employment buildings should transition appropriately to sensitive uses through design measures to minimize impacts of noise and odour. Stepbacks, setbacks, landscape treatments and architectural screening elements are encouraged.

t. Landscape buffers and bioswales should contribute to onsite stormwater management and will provide a transition to adjacent uses.

u. Minimum building setback lines should be no less than 3.0m and no greater than 12.0m to define a more urban street edge.

v. Buildings should face the public street with well considered elevations facing on to courtyards and walkways.

w. Active at-grade building uses with at least 60% glazing should be located along public walkways to reinforce a sense of animation and safety.

x. Transitional building zones including uses such as retail, cafés, etc. should be incorporated to help connect public activity with the building, street and open spaces.

Relevant Policies:

- Niagara Region Official Plan (2.1, 4.2, 4.5)

8.0 Glossary of Terms

- **Animation:** A quality of the built environment supporting activity within the public realm, often supported by architectural expression, accessibility, and supportive facilities and amenities.
- **Angular Plane:** A conceptual plane rising over a lot, drawn at a specific angle from the horizontal, which helps to shape the maximum bulk and height of buildings to ensure adequate access to privacy, sun, and sky views.
- **Backlotting:** Buildings which present rear yards or back-of-house functions to high-order roadways such as arterial or collector roads.
- **Barrier-Free Design:** Building and site design which is accessible to all people, regardless of age and abilities.
- **Bay:** A vertical division of a façade marked by column spacing, fenestration, or architectural articulation.
- **Boulevard:** A boulevard is the area of the street between the building face or the front property line, and the edge of the curb.
- **Buffer:** Land which separates two land uses or properties, typically developed as a landscaped area.
- **Compatibility:** Characteristics of buildings, including scale, height, materials, and landscaping, which allow buildings to be complementary in design with the existing area but does not require them to look exactly the same.
- **Complete Streets:** Streets which accommodate multiple modes of transportation, people of all ages and abilities, and supports adjacent and often mixed land uses.
- **Curbless Street:** Also known as tabletop streets, curbless streets mix vehicle and pedestrian traffic without elevated sidewalks, promoting flexibility and traffic calming.
- **Cycling Facility:** Cycling infrastructure, inclusive of a cycling path or cycle tracks.
- **Facade:** The exterior wall of a building that faces public view, usually referring to the front wall.
- **Landmarks:** Buildings, structures or spaces that provide a sense of location to the observer within the area, such as that created by a significant natural feature or by an architectural form which is culturally significant or distinctive relative to its surrounding context.
- **Low Impact Development (LID):** A design approach to manage stormwater runoff and promote green infrastructure. LID techniques promote increased evapotranspiration, infiltration, and groundwater recharge and also lower surface runoff volumes and flow rates.
- **Mass:** Length, height, and depth which combine to give a building its overall shape.
- **Microclimate:** The outdoor conditions surrounding buildings which are influenced by the massing of buildings, the quality of open spaces, and the relationship between built forms.

- **Public Realm:** The public spaces of a city or town, inclusive of public spaces such as plazas and parks, as well as the right-of-way between buildings and roadways.
- **Right-of-Way:** Publicly owned street space that is located between two property lines.
- **Scale:** The relative size of a building as perceived by pedestrians, which is a product of multiple factors including size, height, bulk, massing, material use, and local context.
- **Servicing Area:** The portion of a building or site that contains services critical to building function. This may include waste storage and pickup areas, as well as material loading and unloading areas.
- **Setback:** The distance from the property line from which a building is built.
- **Stepback:** A recess at the top of a building's podium, base, or upper levels that ensures an appropriate built form scale from the property edge and reduces the perception of mass in a building's upper levels.
- **Street wall:** The condition of enclosure along a street created by the fronts of buildings, and enhanced by the continuity and height of the lower facades. Upper levels, when set back, have less impact on the street wall.

Model Urban Design Guidelines

Niagara Region

BrookMcIlroy

March 2025