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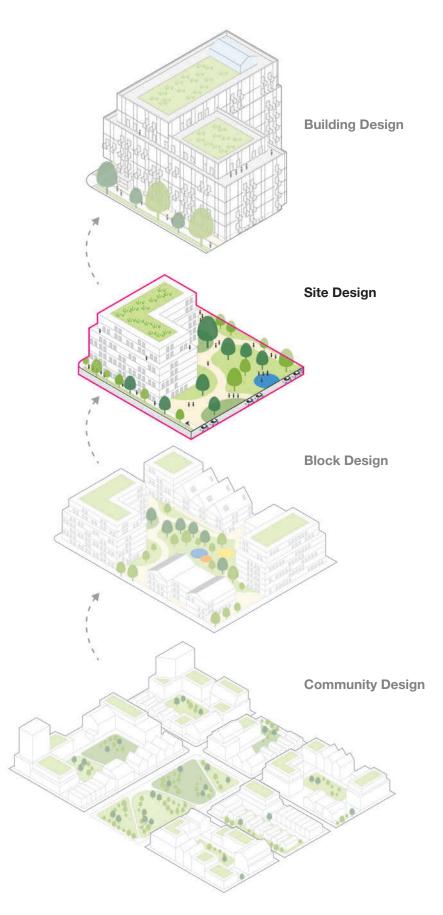
Site design provides an opportunity to positively impact Niagara through the though integration of buildings, open space, and pu realm. Sites should be designed in a manne that responds to existing and planned built open spaces, and adjacent properties to en positive interfaces and transitions.

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Key elements of comprehensively designed include:

- Publicly accessible spaces and privat 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 respect of adjacent sites and fits within the ble
- Visual buffering of parking areas throu landscape interventions should enhar privacy, support beautification and sustainability.
- Unobtrusive access to the site for par 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 commu through good public realm design in keepin with the character of Niagara's many distinct communities.



5.1 Sustainability and Wellbeing

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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 wellbeing 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.

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.

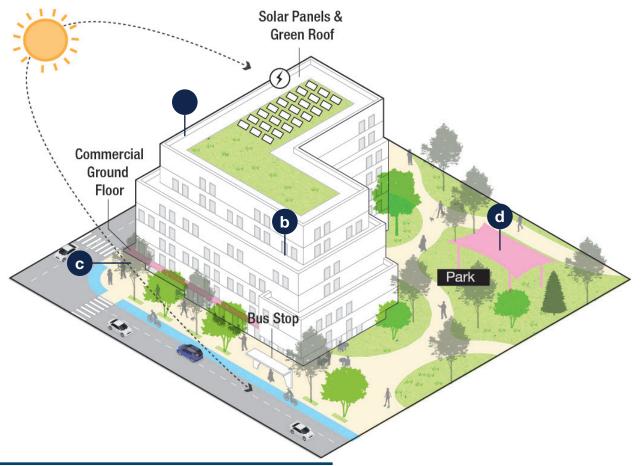


Figure 90: Site design should consider best practices in building orientation, connections to existing trail systems and enhancing adjacent green infrastructure.

Safety and Security Guidelines:

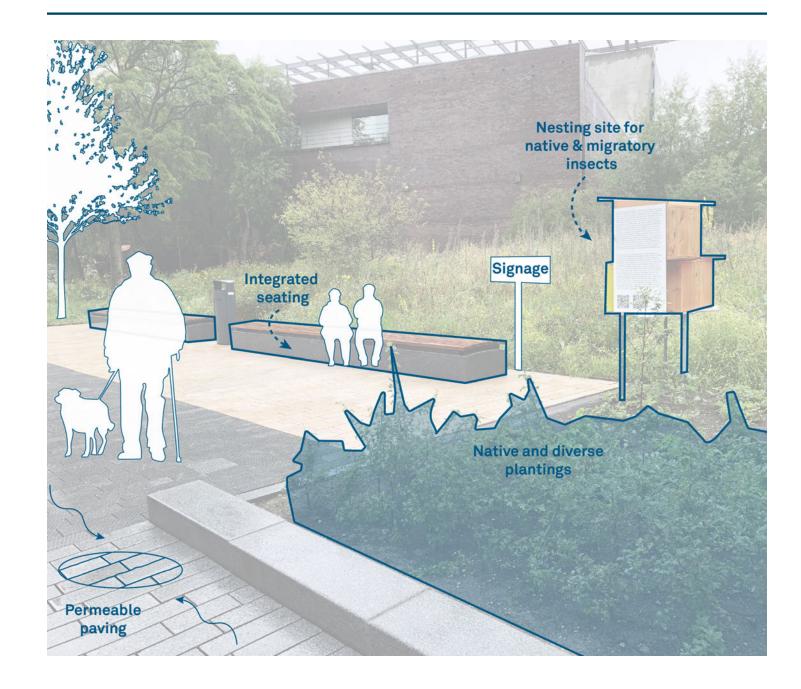
- e. Clear sight lines should be maintained to allow people to see and be seen. Blind corners, bends, grade changes, partially lit areas, and other elements which may obscure views are discouraged. Site and building design should strive to maximize safety and security, employing best practices in CPTED.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



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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 onsite 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.

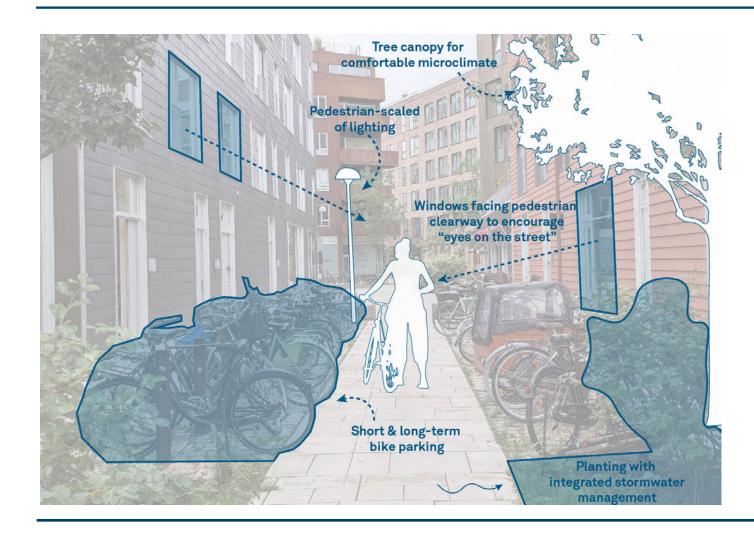


Figure 94: Mid-block connections should contain plantings and permeable pavers where possible to reduce urban heat island effects.

- 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.

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- 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 mediumsized 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 higherorder 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.



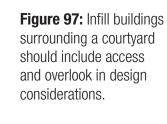
Figure 96: Infill development should enhance the urban environment and provide amenities for new tenants, residents, and the wider community.

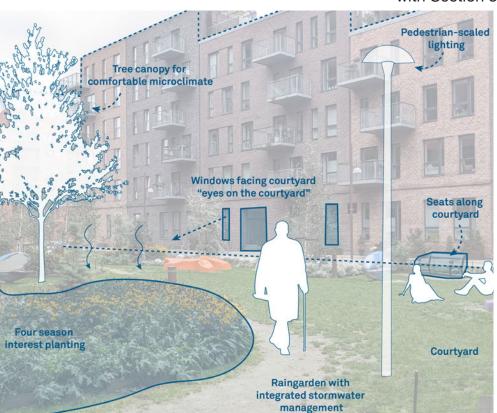
Design Guidelines:

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





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.
- 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.
- I. 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.

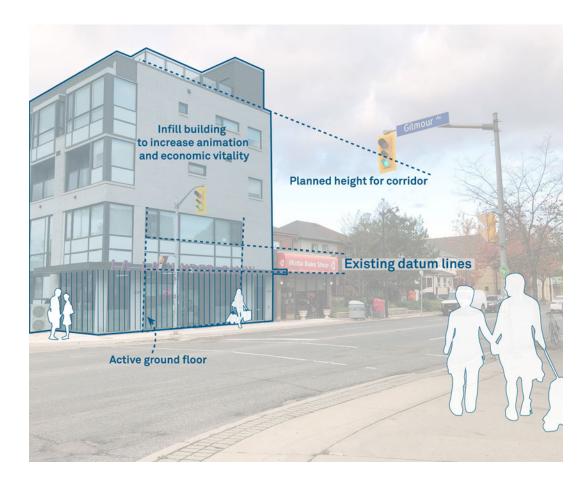
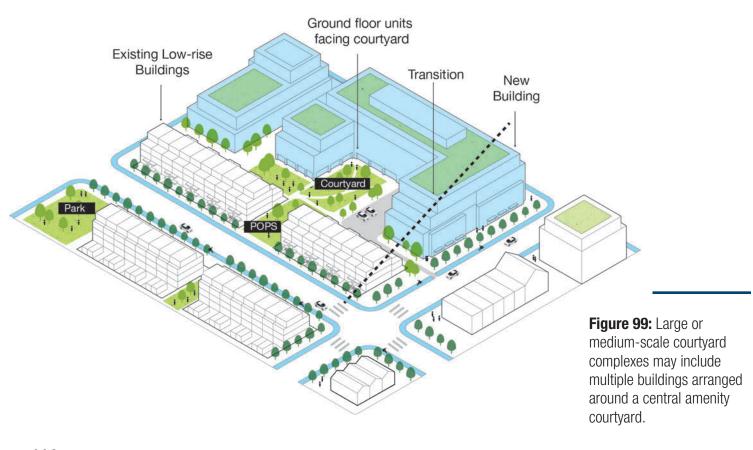


Figure 98: Infill development can increase density while utilizing design measures to complement the existing neighbourhood.

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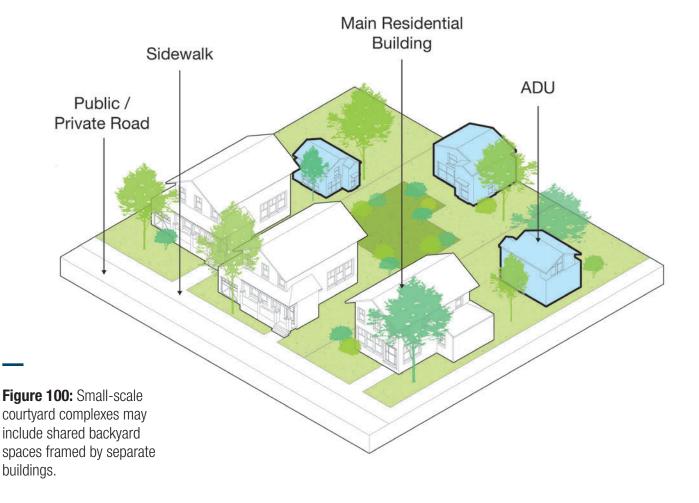
- o. On deep lot sites where mid-rise buildings are contemplated, townhouse blocks or similar low rise forms may be used to transition to neighbourhoods beyond.
- p. Where two or more buildings are proposed for a site, central courtyard areas or open spaces between the two buildings are strongly encouraged 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, semidetached 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.



Large and Medium Site Intensification Guidelines:

- 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 transitoriented 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.



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

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- ab. Infill development should reflect the desirable aspects of the established streetscape character and contribute to the improvement
- 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

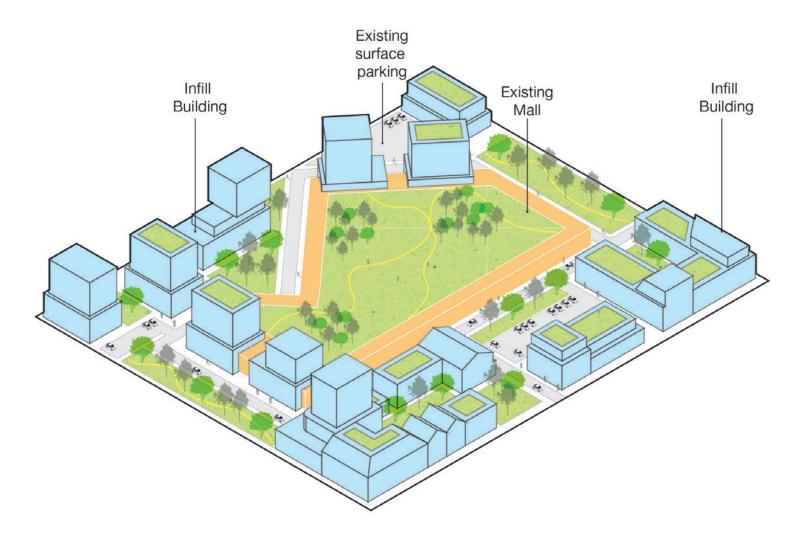


Figure 101: Large sites may be redeveloped in a manner that intensifies the property and improves existing resources on site.

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

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.

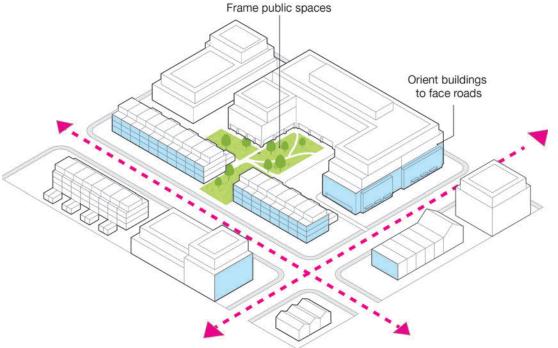


Figure 102: Orient buildings to face roads and frame public spaces. Active building frontages that face the road will encourage safe and animated spaces.

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.

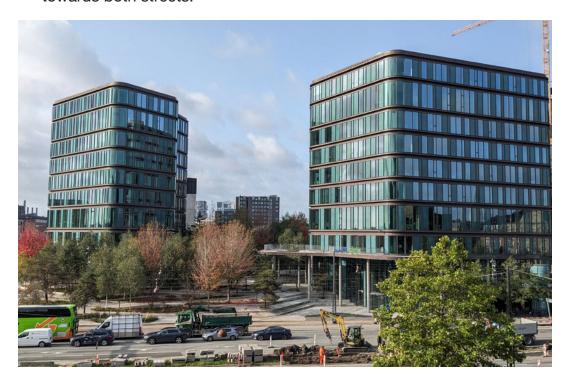


Figure 103: The relationship between buildings is a fundamental element of urban design that requires considerable consideration and design. The architecture of building relationships define the nature and usability of spaces, the public realm, create micro-climatic effects, and how people interact with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

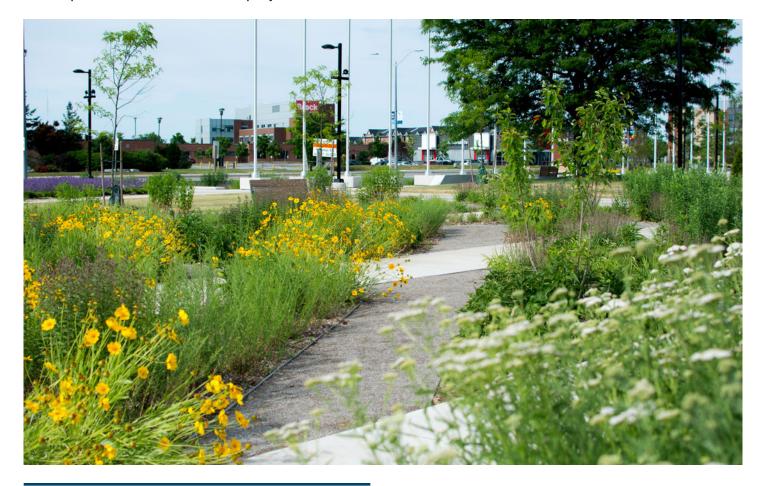


Figure 104: Green infrastructure can enhance the image of a community.

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

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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:

- Use landscape design and planting to create inviting open spaces and frontages that provide shade, wind protection, and comfortable environments.
- 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.
- Plantings and trees should be droughtresistant and salt-tolerant when located adjacent to pathways, roads, and parking areas.

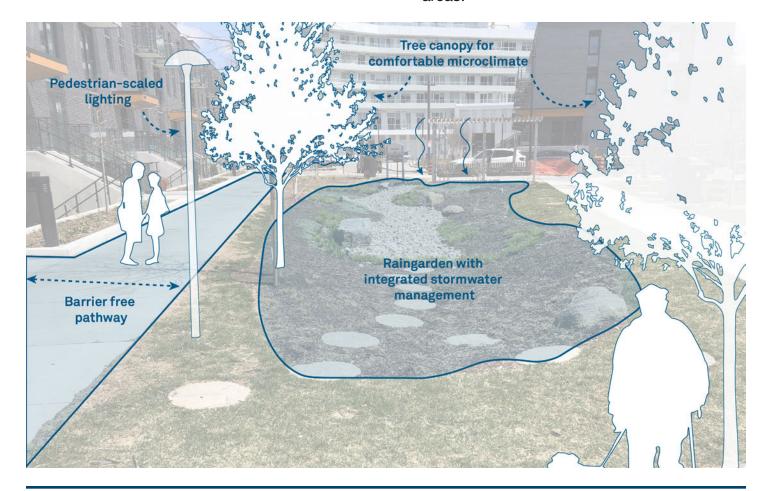


Figure 106: Green infrastructure can be incorporated in landscape design to reduce stormwater run off and create intriguing places with ecological benefits that are important to Niagara.

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.

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- 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.
- 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.
- 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:

- 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:

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- 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).

Additions to Heritage Building Guidelines:

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.

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- 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.
- 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.
- 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.

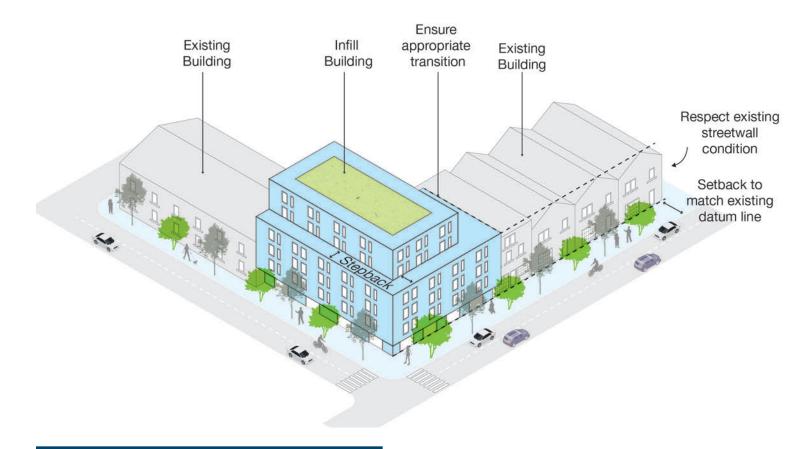


Figure 111: Ensure appropriate transitions in height, scale, proportion, form and spatial arrangement to surrounding developments and adjacent properties.

Key References:

- Standards and Guidelines for the Conservation of Historic Places in Canada
- k. Additions should be differentiated from and harmonious with existing heritage structures.
- I. 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.



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:

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

- 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.
- . 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.

5.0 Site Design

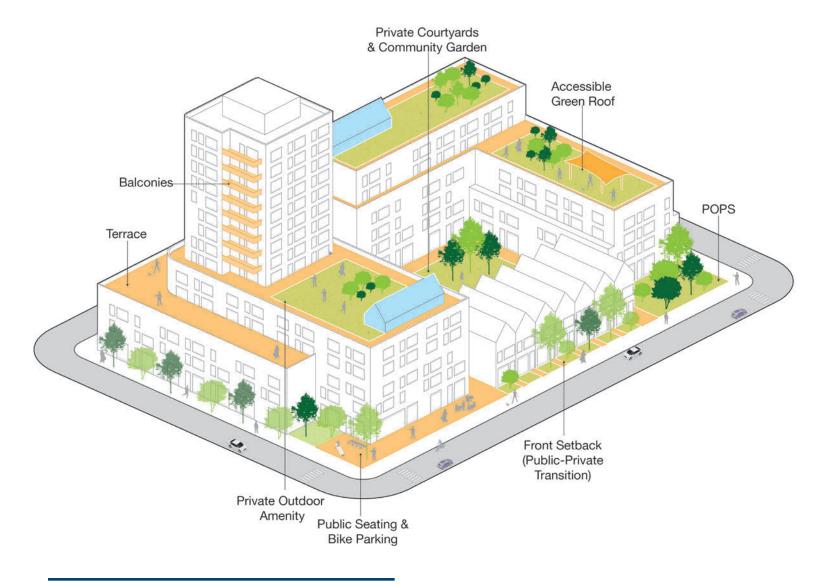


Figure 117: Outdoor amenity spaces can be sited throughout a new development and should be designed in a manner that maximizes the enjoyment of the space by esizents and visitors.

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

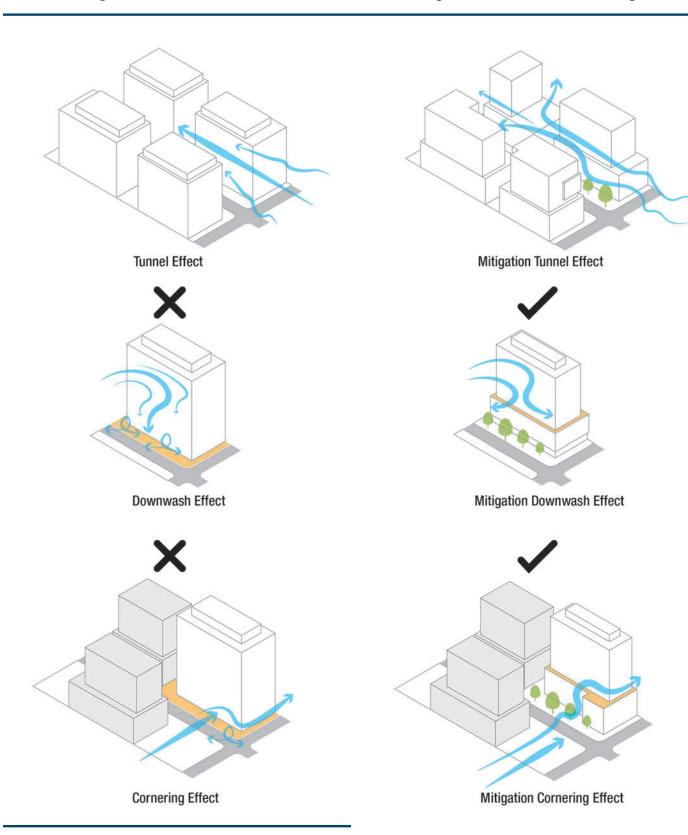


Figure 120: The design and siting of buildings within a site and across blocks can positively or negatively impact wind speeds.



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 Bylaw 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:

5.0 Site Design

- 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.
- Planting and landscape buffers should not inhibit the safety or visibility of pedestrians, cyclists, or motorists.
- Rooftop amenity areas should be designed to be compatible with adjacent properties and maintain privacy for adjacent buildings.
- w. Consider privacy when designing all abovegrade 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.

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

cycling facilities, and multi-use trails.

include sidewalks, pathways, and mid-block

Site furnishings that are supportive of these

modes of transportation can help contribute to a

walkable and bikeable community that feels safe

can delineate spaces and uses, contribute to the

and accessible. Complementing site furnishing

character and attractiveness of the street, and

provide necessary infrastructure for walking and

connections, while cycling connections include

Design Guidelines:

5.0 Site Design

- 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.
- 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.

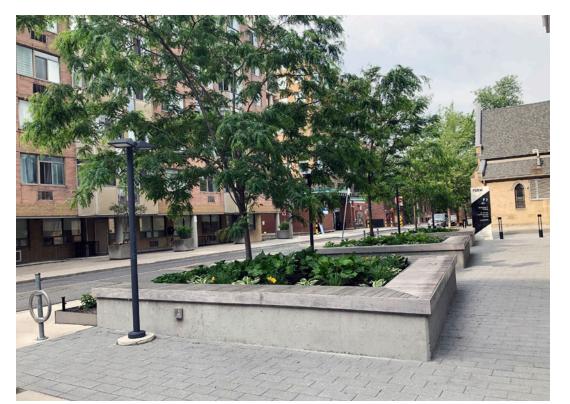


Figure 125: POPS can include seating and planting features to encourage socializing.

Best Practices:

- Connect to Other Networks: Pedestrian and cycling connections should be implemented as part of a larger interconnected 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.

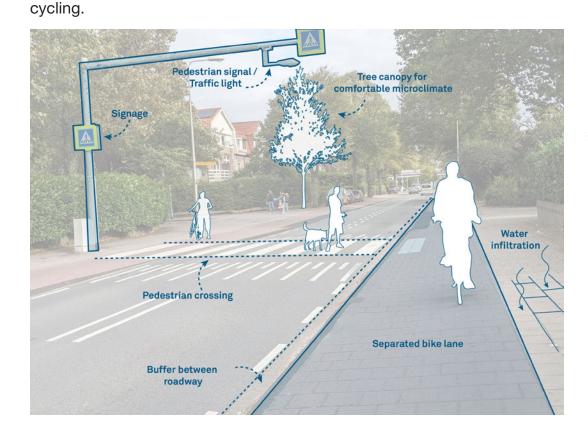


Figure 126: Separated bicycle lanes are recommended to promote safe cycling access throughout the Region.

 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.

5.0 Site Design

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.
- 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.
- 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.
- Design pedestrian crossings with safety measures such as bump outs, bollards, or medians designed to slow vehicular traffic.
- Provide tactile or auditory indicators at key crossings, along routes, and at potential conflict points.
- I. 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.
- 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.

5.0 Site Design

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 allweather 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)

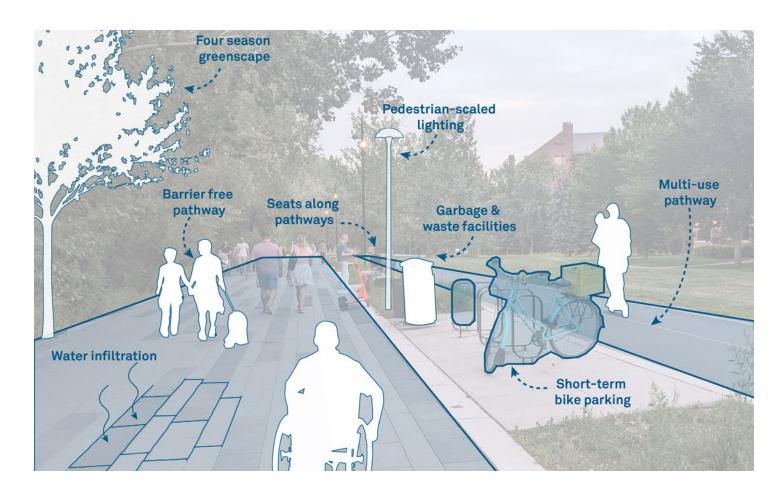


Figure 129: Site furnishings should be consolidated where possible to limit disruptions to planting areas or pedestrian clearways.

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.

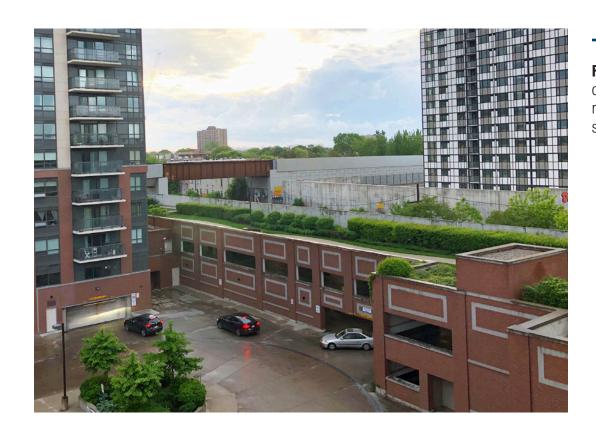


Figure 130: Green roofs on parking garages are recommended to promote sustainability.

Driveway Guidelines:

5.0 Site Design

- 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.

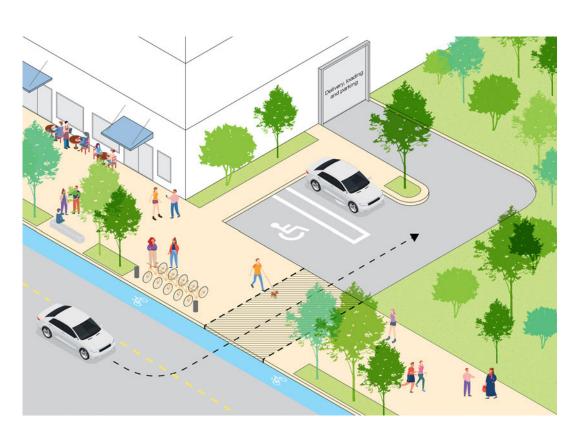


Figure 131: Arrange vehicular circulation, arrival and drop-off zones to prioritize public spaces. Limit the number of driveways that cross sidewalks and preserve pedestrian priority.

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.

- Parking aisles should not exceed 30 contiguous spaces in length and should have a consistent design angle perpendicular to primary building entrances.
- 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.

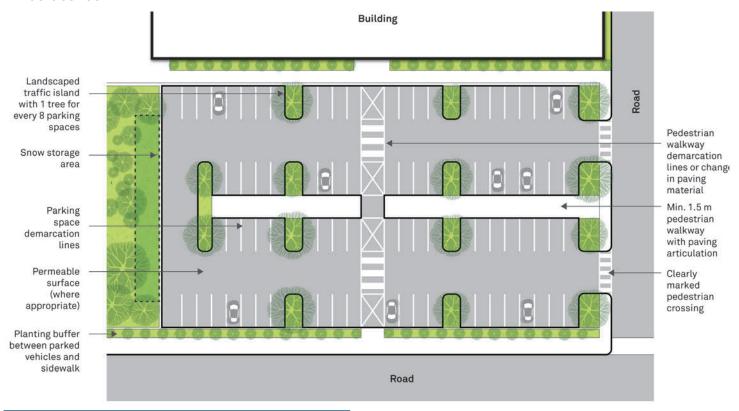


Figure 132: Parking courts can introduce plantings, including trees, in a manner that reduces stormwater run off and urban heat island effect.

- 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.

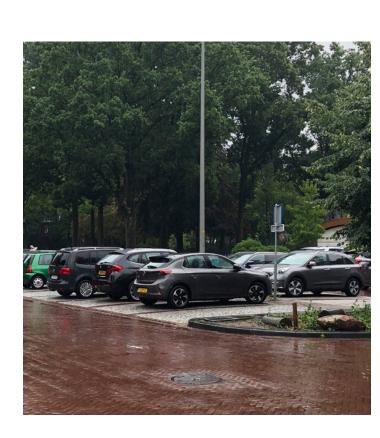


Figure 133: Surface parking lots can introduce pavers to increase porosity and reduce stormwater runoff.

- To ensure opportunities for surveillance from adjacent areas, perimeter hedge and shrub screening should not exceed 1.0m in height.
- 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:

- 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.

5.0 Site Design

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.

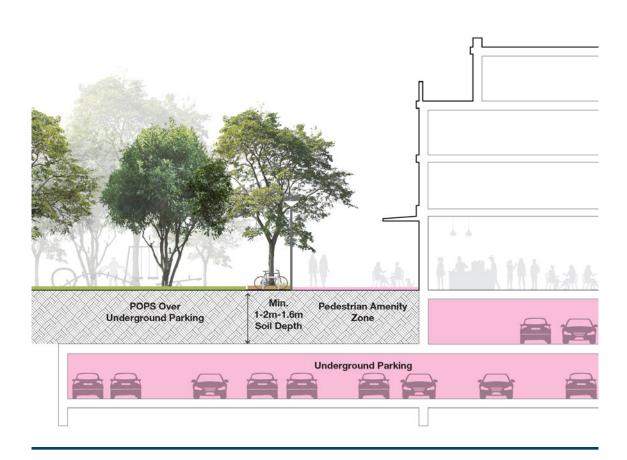


Figure 135: Underground parking facilities may be located within the subject site and below amenity spaces and POPS.

- 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.

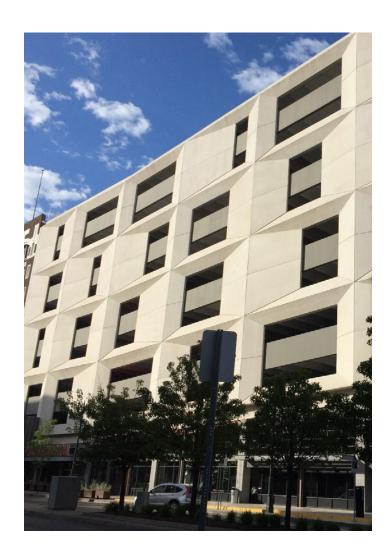


Figure 136: Structured parking lots should include positive elevation treatments that add interest to the building.

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.
- ii. Walkways should include pedestrian-scaled amenities wherever possible, such as benches, trash receptacles and lighting.

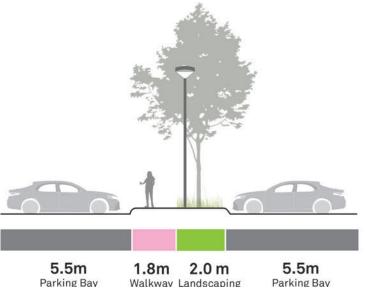


Figure 137: Walkways within parking areas should be highly visible and safe from the path of vehicles.

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:

- The design and selection of material palettes should be coordinated when selecting light fixtures. Ensure site lighting is properly maintained and managed.
- 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.

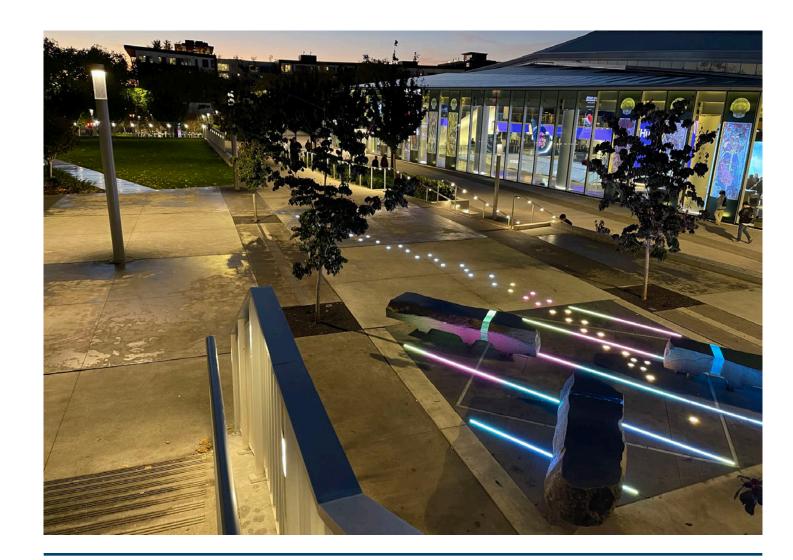


Figure 138: Site lighting can support placemaking efforts and add visual interest to the area throughout the day.

- 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.
- 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.

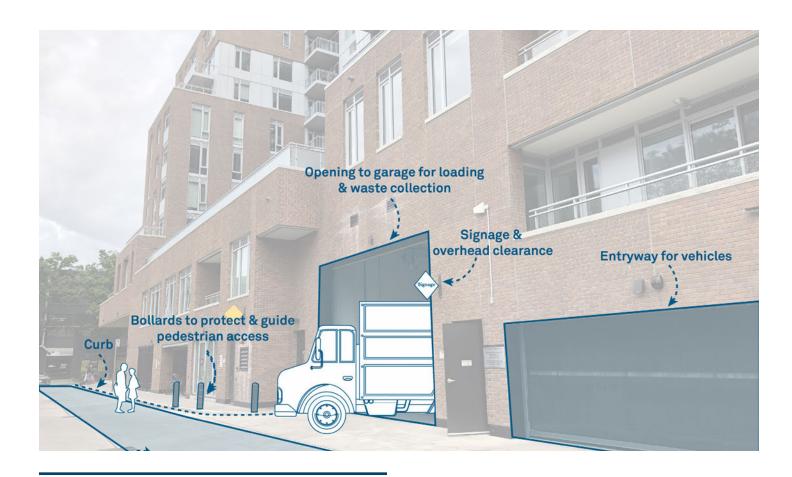


Figure 141: Loading and waste collection should be located within the building envelope, clearly signalled, and provide sufficient overhead clearance for safe use.

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.
- 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.
- 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.

Best Practices:

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 municipal waste collection, refer to municipal guidance.

5.13 Waste Management

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.

Model Urban Design Guidelines for the Niagara Region

- 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.

a. Roadways intended to accommodate waste removal activities must be designed with reference to the Niagara Region Corporate Procedure: Procedure for Requirements for Waste Collection.

Waste Collection Access Guidelines:

- 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, direct waste collection in front of each property or unit is preferred. Alternate options may be studied 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.
- Multi-unit residential buildings must provide roadway and collection areas to allow collection vehicles to enter and exit without encroaching on the public rightof-way, public spaces, parking spaces, or landscaping.
- 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.
- Waste management areas should be located within the building itself and should be enclosed or screened to minimize the area from public view.
- I. Avoid placing the waste management areas at the exterior of the building, between the building and the street.
- m. The enclosure or area finishings should match the exterior architectural finish of the main building.

Key Policy Documents:

 Niagara Region Corporate Procedure: Procedure for Requirements for Waste Collection

6.0

Building

Model Urban Design Guidelines for the Niagara Region

Design

6.1	Sustainability	and	Well-being
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6.2 Heritage Building Guidelines

6.3 Low-Rise Building Guidelines

6.4 Mid-Rise Buildings Guidelines

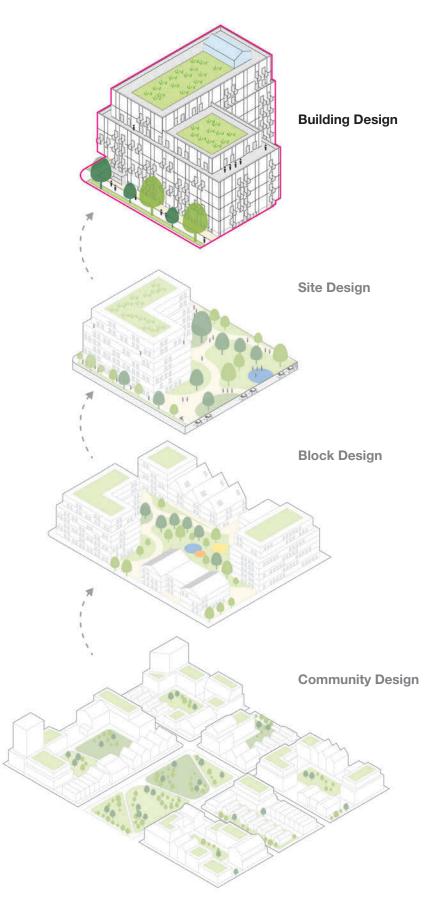
6.5 Tall Buildings Guidelines

The design of buildings can influence the lo and feel of neighbourhoods and communitive 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 a best practice to construct buildings to be flexible, with durable materials, and high quarchitectural design. Good design that provlasting visual value and durability is strongly encouraged in Niagara.

Key elements of high quality buildings inclu

- Functional building layouts and space allocations to meet the needs of occupants or building users.
- Natural light, ventilation, acoustics an thermal comfort to promote well-bein and enjoyment of building spaces.
- Building components, massing and heights can support transition to lowe scale areas.
- Visually appealing proportions, scale, harmony and balance with high qualit materiality.

Buildings should be designed to respect the unique character of Niagara's communities and transition to the surrounding planned a existing buildings by applying a best practic approach. The following guidelines address common building types.





158

6.1 Sustainability and Wellbeing

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.

Model Urban Design Guidelines for the Niagara Region

- 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:

- Design buildings to reduce wind speeds through shape, height, step-backs, façade dimensions, façade separations, and features including canopies, colonnades, and parapets.
- 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.

Guidelines:

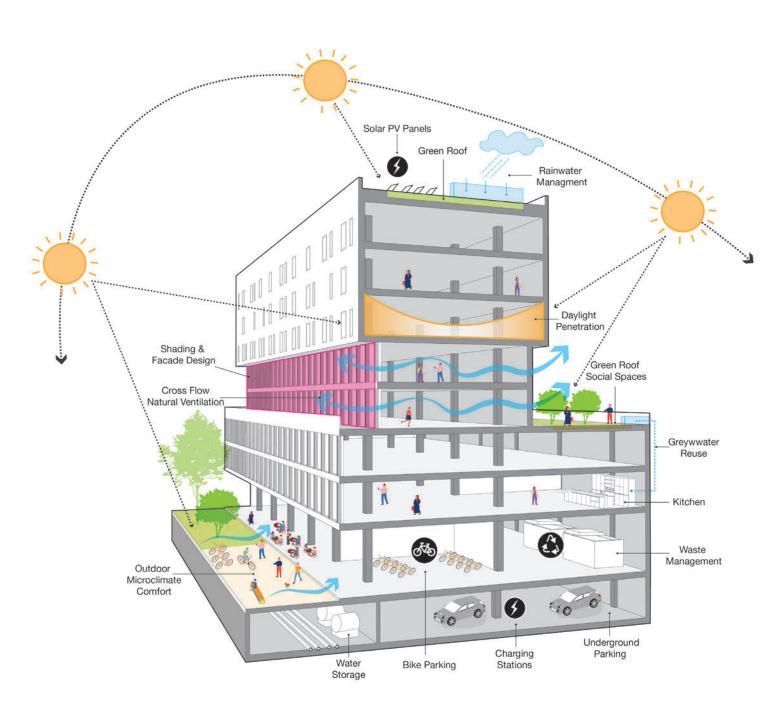
The construction industry plays a pivotal role in global resource consumption and environmental impact. The concept of circular economy combats traditional linear systems of consumption and production. The use of high quality and durable materials supports the circular economy and promotes sustainable 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.

- 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.
- 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)



Model Urban Design Guidelines for the Niagara Region

Figure 145: Sustainable building design considers a number of interconnected design interventions to have a positive impact on building users and the wider community.

- 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 lowemissivity 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. Longlasting attractive façade materials reduce material waste and carbon intensity longterm 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.

 High-efficiency equipment for heating and cooling should be provided, such as electric heat pumps and heat recovery systems for exhaust air.

Model Urban Design Guidelines for the Niagara Region

- 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 geoexchange to supplement energy-intensive systems.



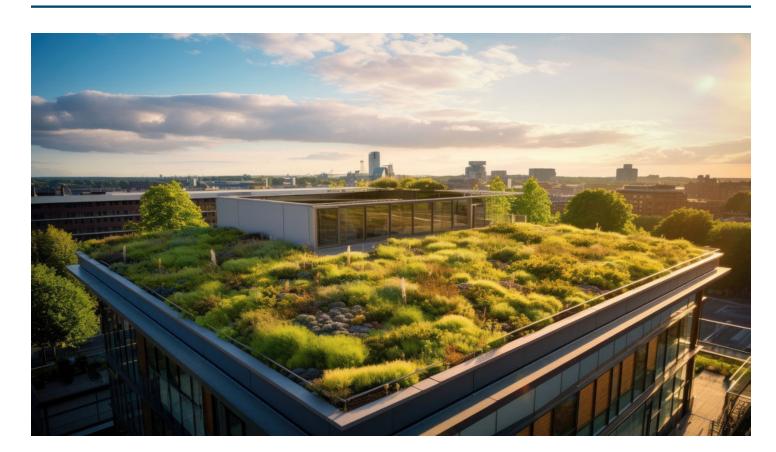
Figure 147: Green roof elements or community gardening efforts can be complemented by photovoltaic arrays.

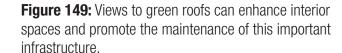
- x. New developments are encouraged to be constructed to meet sustainable building standard certifications such as Passive House, LEED, WELL, BREEAM, and Zero Carbon Building Standard to measure and communicate the desired sustainability outcomes of building projects.
- y. New developments are encouraged 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 lowtemperature 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)





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.

Model Urban Design Guidelines for the Niagara Region

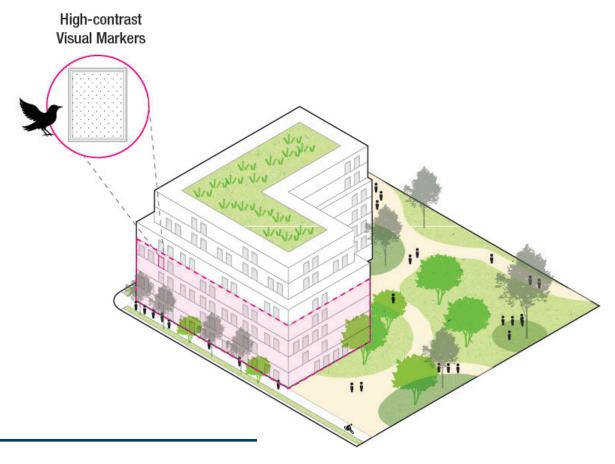


Figure 150: All buildings should be designed to minimize bird collisions. High-risk glass should be treated with high-contrast visual markers to reduce the risk that glass surfaces pose to birds.

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.

Model Urban Design Guidelines for the Niagara Region

- 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:

- Adaptive reuse of heritage buildings is strongly encouraged to reduce carbon emissions and protect cultural heritage value.
- 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.
- Original elements that lie beneath contemporary alterations should be conserved and replicated where necessary if damaged.

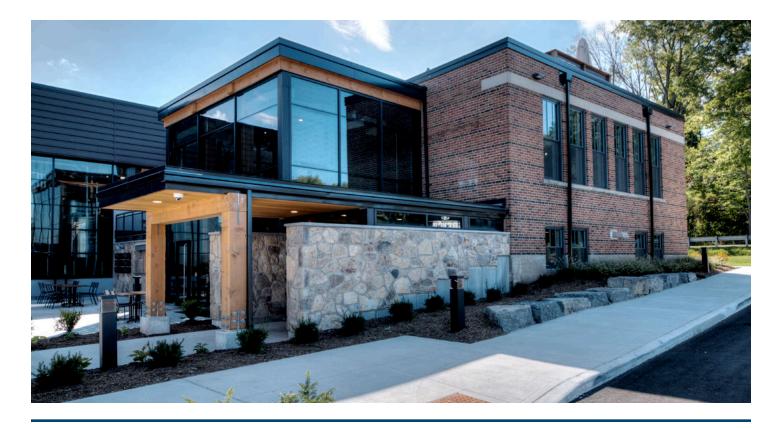


Figure 152: Heritage additions should be designed in a manner that is sensitive to the existing building (Bench Brewery)

- 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.
- 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.

Model Urban Design Guidelines for the Niagara Region

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.

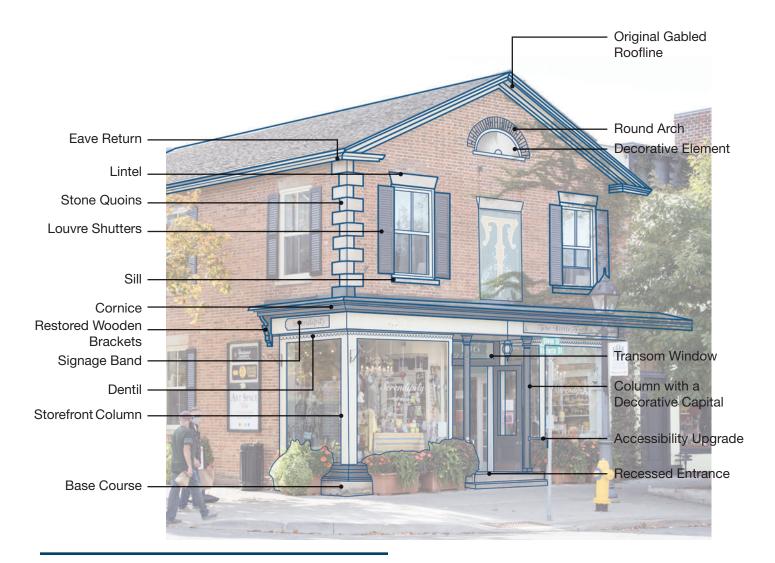


Figure 153: Heritage elements should be conserved by qualified professionals.

- 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.
- 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.
- 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



Model Urban Design Guidelines for the Niagara Region

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

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.

Model Urban Design Guidelines for the Niagara Region

- 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.
- 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.
- 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.

- I. 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.
- 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.

Model Urban Design Guidelines for the Niagara Region

- 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 lowrise 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.

Model Urban Design Guidelines for the Niagara Region

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 semidetached 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.

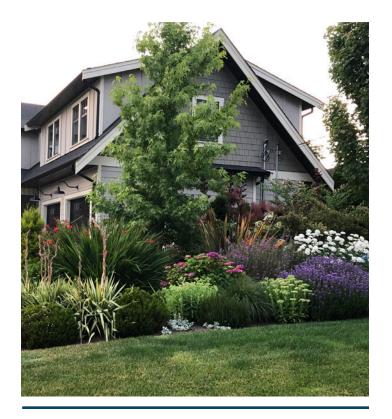
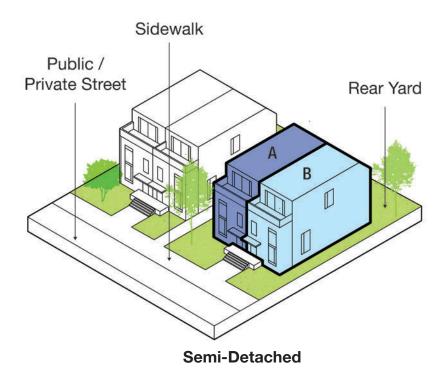


Figure 162: Front yards should be of an appropriate size for planting.

- 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.



Model Urban Design Guidelines for the Niagara Region

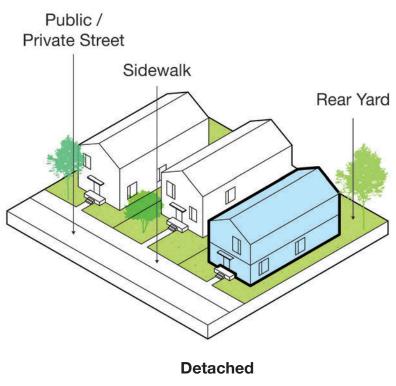


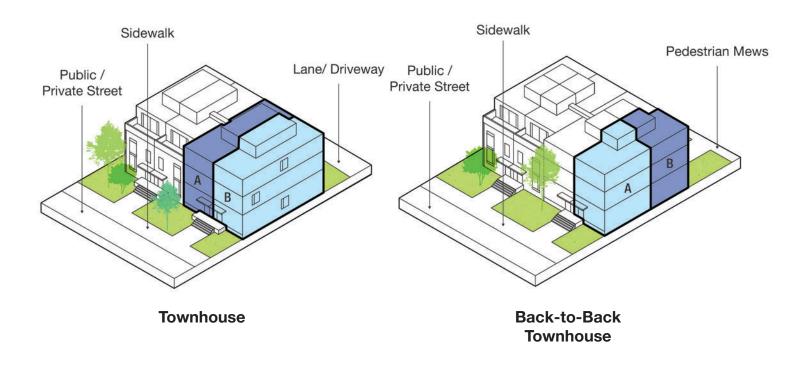
Figure 163: Semi-detached and detached forms should include ample space for landscaping.



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).

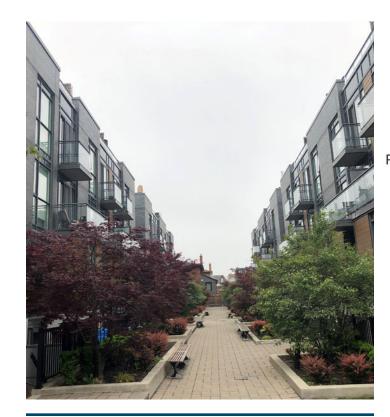


Model Urban Design Guidelines for the Niagara Region



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.





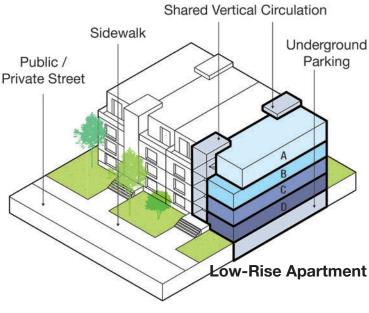


Figure 167: Low rise apartments include shared vertical circulation stairs.

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.

Model Urban Design Guidelines for the Niagara Region

- 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.

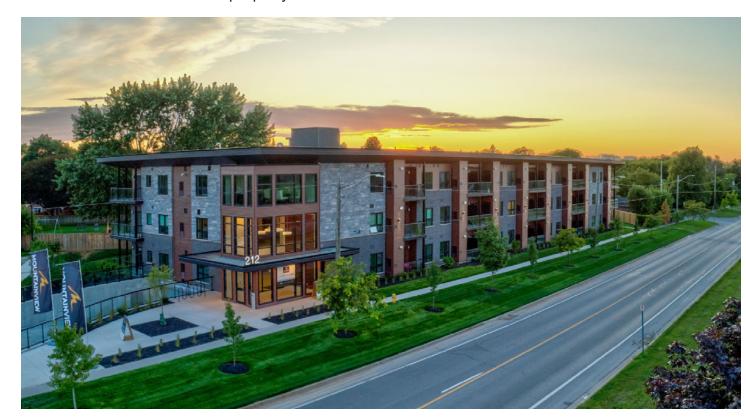


Figure 168: Lower-scale mid-rise buildings of 3-4 storeys are encouraged to provide dense housing opportunities adjacent to existing neighbourhoods or within new communities.

- 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.

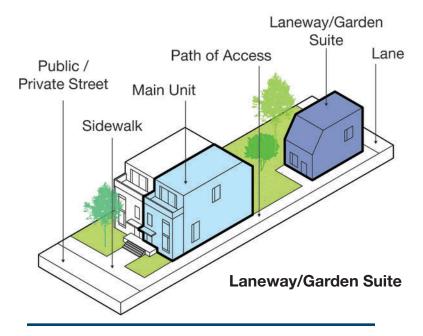


Figure 169: ADUs may include laneway or garden suites, so named depending on their orientation and frontage relationship.

- 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.



Figure 170: Laneway suite providing overlook from a second storey juliette balcony.

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.

Model Urban Design Guidelines for the Niagara Region

- 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 171: Laneway suite with cantilever over parking pad.

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, midrise 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.

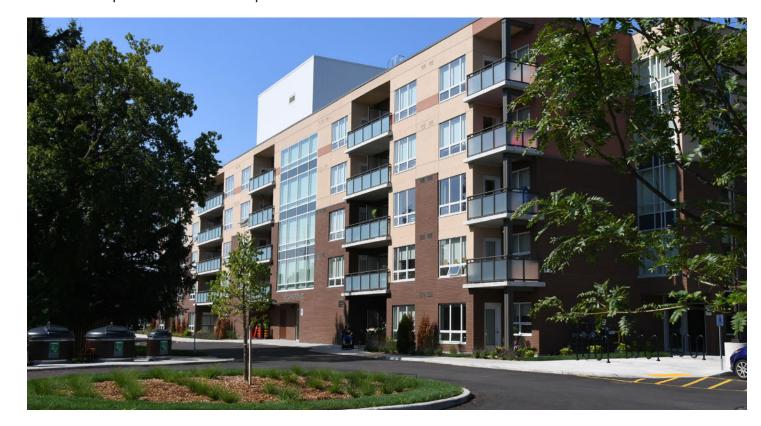


Figure 172: Mid-rise buildings are encouraged to provide dense housing opportunities adjacent to existing neighbourhoods or within new communities.

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
- 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.

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Mechanical Penthouse 3.0m min. step-back 1.5m min. step-back above 6 Storey at rear 55m min, side setback above 6 Storey 36.0m max. Building 1.5m non-mandatory stepback at 3-4 storey for lower building expression Rear of Building up to 6 Storeys Up to 2-4 Storey storey expression Rear Lane Access 4.0m Wide Sidewalk Ground Local Street with Trees Wide Sidewalk

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.

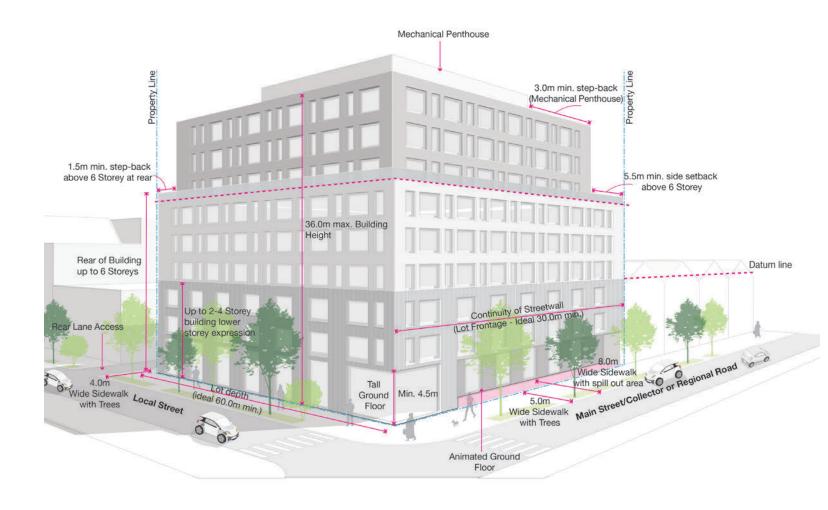


Figure 174: Sample mid-rise building indicating increased setback along main street.

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.

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- 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.
- Street walls should be designed with humanscaled articulation, including establishing datum lines and vertical bays to break up the massing.

Figure 175: Trees within front setbacks can provide additional privacy and shade in the warmer months.

Site Design to Activate the Street and

areas within building setbacks, including

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, treelined boulevards, grade-related residential

units, and/or "spill-out" areas for retail,

restaurants and cafes.

ground level terraces, courtyards, play

On-site Outdoor Areas: Create active site

Figure 176: Locating terraces above street wall stepbacks is encouraged.

- 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 subdivide the street wall where it exceeds 60 metres or allow for shared access between adjacent lots.

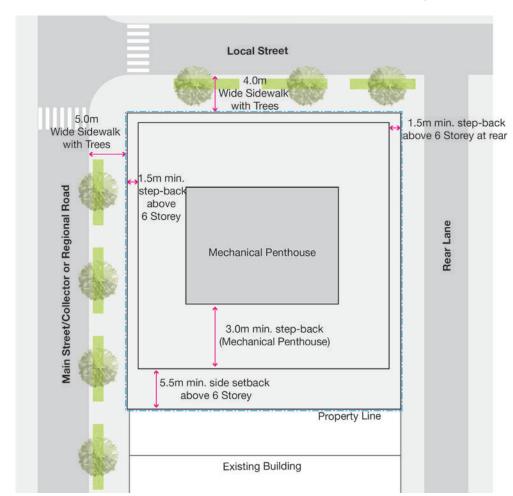


Figure 177: Mid-rise building setback diagram.

Setback Guidelines:

- i. Front yard setbacks should generally be within a range of 0 to 4.5 metres. In circumstances where the public right-ofway 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.

min. 5.5m

Existing

building with

side windows

I. 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.

Model Urban Design Guidelines for the Niagara Region

- 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.

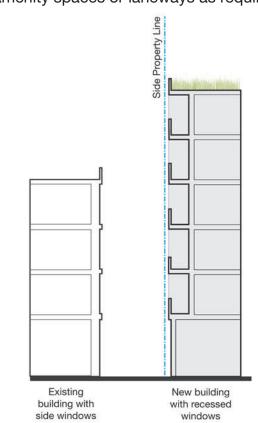
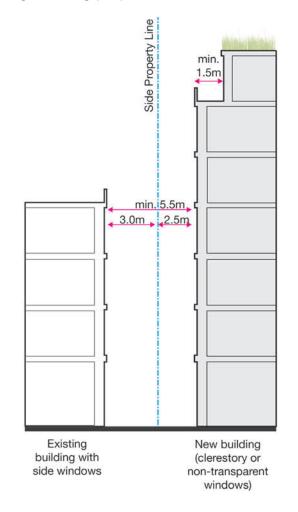


Figure 178: Mid-rise building section diagrams illustrating potential sideyard conditions above the sixth storey.

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.
- 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.

192

New building

(no side windows

permitted)

- 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 atgrade 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 midrise 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 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.



Model Urban Design Guidelines for the Niagara Region

Figure 181: Two-storey townhouse units incorporated into a mid-rise form allow for privacy of bedrooms located at the second storey.

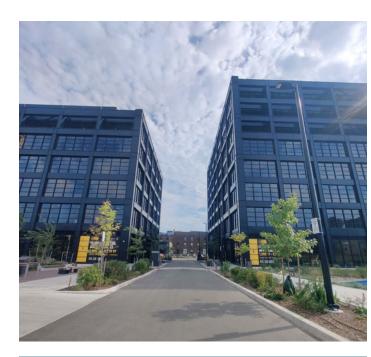
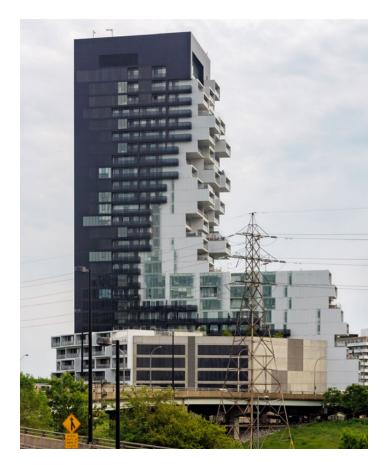


Figure 182: Taller mid-rise buildings are appropriate in strategic, transit-oriented locations throughout the Region.

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.

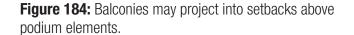
Design Guidelines:

- 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.



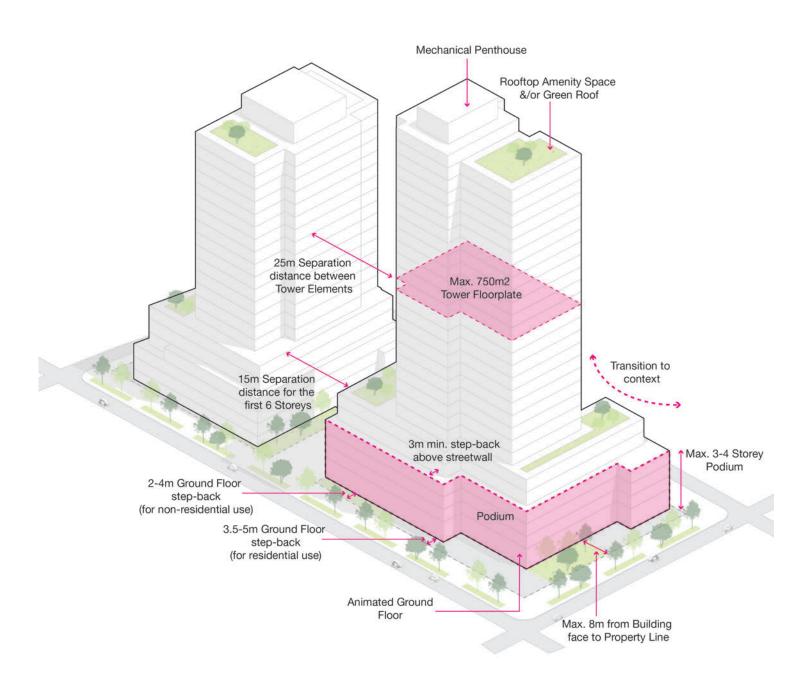


Figure 185: Tower separation guidelines ensure sky view is maintained from the public realm and privacy is maintained between towers.

- 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-metredeep 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.
- I. 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:

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- 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.

• 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

Model Urban Design Guidelines for the Niagara Region

See Also:



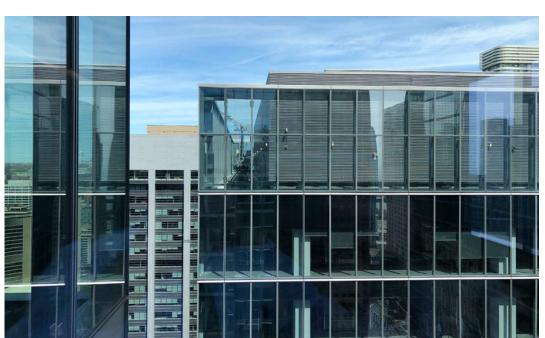
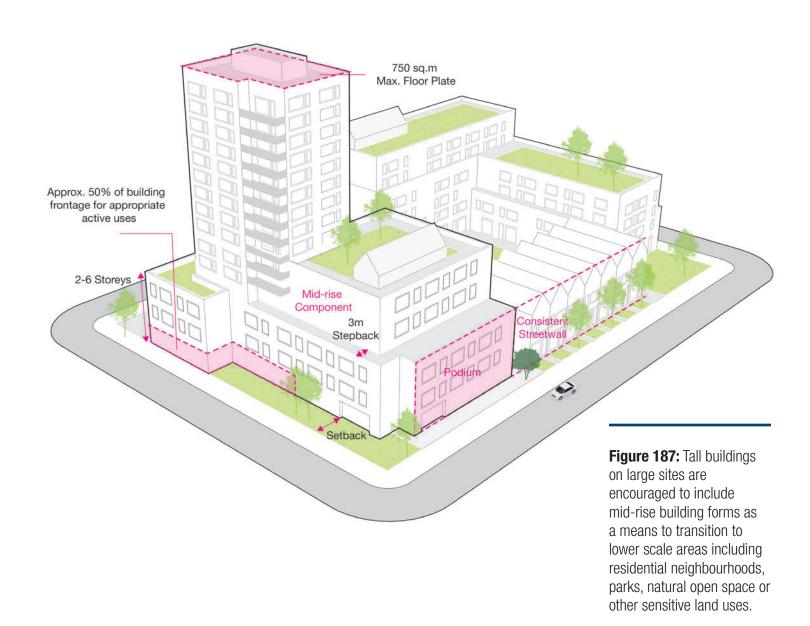


Figure 186: Mechanical penthouses should be screened from view.



7.0Building Types

- 7.1 Commercial Buildings
- 7.2 Multi-Unit Residential Buildings
- 7.3 Affordable/ Attainable Residential Units
- 7.4 Mixed-Use Buildings
- 7.5 Community Facilities and Amenities
- 7.6 Employment Buildings

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.

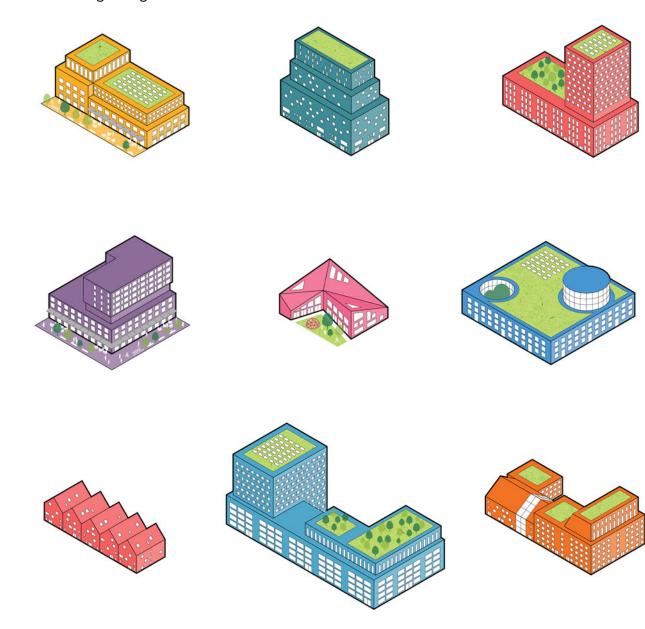


Figure 188: Building type matrix



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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.

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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.
- A minimum building height of 2 storeys is encouraged for commercial buildings to promote compact development and a highquality 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.

- To ensure barrier free access and ease of mobility, public realm elements and spill out retail space should not encroach on the pedestrian clearway.
- 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.

- I. 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.

Vehicle-Oriented Commercial:

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- 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.
- 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.

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.

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.

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- 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.



Figure 193: Multi-unit residential buildings should provide housing for a variety of household sizes.

Design Guidelines:

- a. Orient Multi-Unit Residential Buildings to frame and define the street edge and enhance the public realm through activation.
- 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 rightof-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.

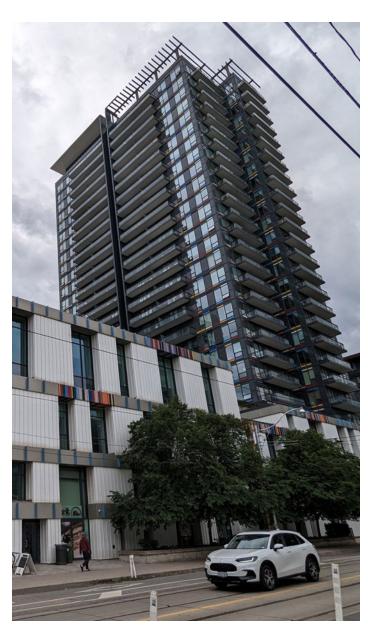
- i. Multi-Unit development should include the following:
 - A mix of 2-bedroom and 3- bedroom units to accommodate larger household sizes in mid-rise and tall buildings.
 - Unit types and ratios will align with housing need as identified through housing strategies, planning processes, local needs assessments 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.
- 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.



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.

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- 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.

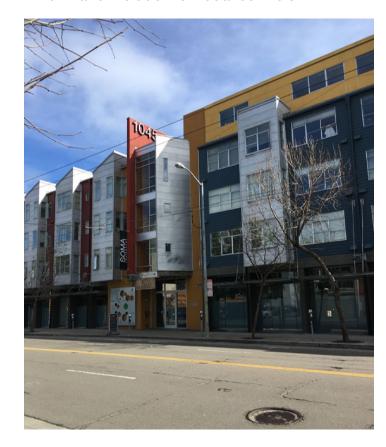
Figure 194: Affordable/attainable housing comes in many building forms.

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.
- 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.



- 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 multiunit developments to accommodate a range of incomes and household types. Prioritize units that are one bedroom, or three or morebedroom 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.
- Consider placing larger family units close to access to outdoor space and provide larger living, dining, and storage areas.

Figure 195: Affordable/attainable housing should have legible entrances and numbering.

- k. Units should provide amount of storage space proportional to the size of the unit, in addition to the minimum unit floor space.
- I. 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.

 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.

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- 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

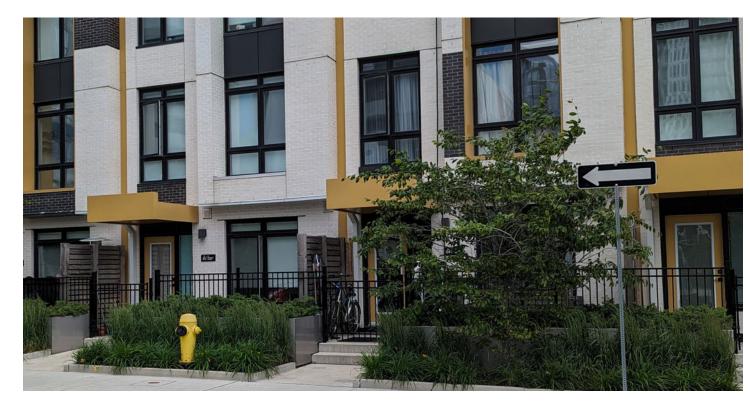


Figure 196: Affordable/attainable housing should include trees and plantings to enhance the site.

7.4 Mixed-Use Buildings

Mixed-use buildings can take the form of lowrise, 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, mixeduse 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:

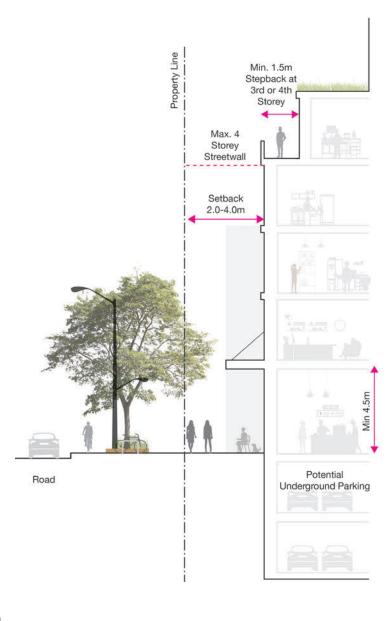
- Relationship with street: Streets that are walkable and engaging can increase commercial activity by slowing down passers-by as they engage with window displays or uses that spill out into the public realm.
- Ground floor transparency: The ground floors of mixed-use buildings should be visually interesting 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:

- 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.



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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 upperlevel 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.
- 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:

- I. 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 slipresistant flooring, mats, and/or floor grates to mitigate the effects of wind and precipitation on the building interior.

Figure 200: Mixed-use buildings should promote active transportation.

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.

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- 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.



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)





Design Guidelines:

- 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.

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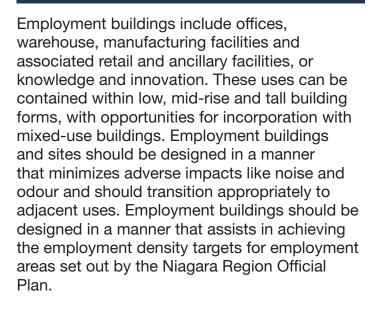
- d. Incorporate public art features within atrium spaces or at entrance points to welcome community members.
- e. Community Facilities should be solar ready and built with required piping and equipment to accommodate a rooftop solar power system. In addition, buildings should strive to achieve LEED 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.

- . 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.
- . 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.



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.



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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.



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.

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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.
- Building entrances should face the road and have well defined pedestrian access to the sidewalk.
- 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.
- I. 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.

- 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.

r. Employment areas facing residential areas should be a maximum of 3-storeys and compatible in mass and form to the residential built form.

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- 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 rightof-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.

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March 2025

