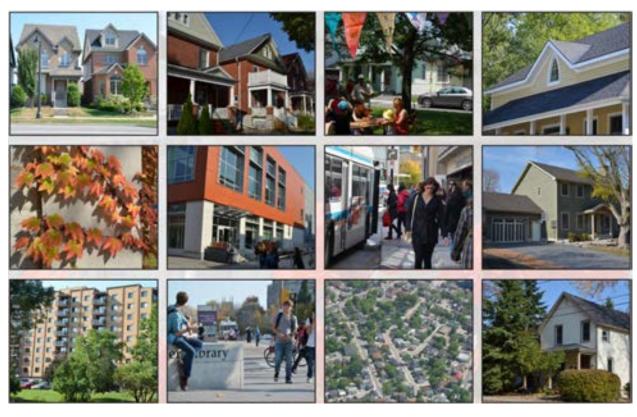
# Design Guidelines for Communities

### City of Kingston



Planning, Building and Licensing Services October 1, 2015



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# Section 1 Introduction

#### Application of the Guidelines 1.1

These design guidelines are a tool to guide neighbourhood development within the urban area of the City of Kingston. They have been created to assist the public, land owners, developers, and City Staff by illustrating best practices in the design of new communities. Applicants are encouraged to follow the guidelines as they prepare their submissions. Staff, members of Planning Committee, members of the Municipal Heritage Committee, and members of the Committee of Adjustment will also use the guidelines as they evaluate development applications. Depending on the nature of development proposed, these guidelines should also be read in conjunction with Design Guidelines for Residential Lots. Both documents are based on the Kingston Residential Intensification/New Community Design Guidelines prepared by Brook McIlroy Planning and Urban Design/Pace Architects in June 2010.

This document provides residential design guidelines at the neighbourhood level, including larger areas of land that have not been previously developed, or that have the potential to be extensively redeveloped. The guidelines will assist in the design of site plans and subdivisions, as well as secondary plan areas and brownfield sites.

The guidelines that follow illustrate some of the best practices and important principles for design in the public and private realms. The illustrations shown in the document provide a few examples of how the guidelines can be applied, and are not intended to exclude other concepts that meet the intent of the guidelines.



Figure 1-1: An artist's rendering showing a main street commercial area that incorporates active transportation.





Figure 1-2: King Street West looking to the east. Over time, incremental changes can occur in well-established communities to enhance the character of the street.

### Section 2 Residential Development in New and Existing Communities

#### 2.1 **Guiding Principles**

Through public consultation, eight guiding principles have been identified to ensure the development of successful new communities. These principles are as follows:

- 1. Foster attractive communities and a sense of place;
- Create compact, walkable, mixed-use communities;
- Provide a variety of housing types;
- 4. Provide access and visibility to open spaces;
- 5. Create a sustainable natural heritage and open space system;
- 6. Encourage environmentally sustainable development;
- 7. Create a street network for active transportation including walking, cycling, and transit; and
- 8. Integrate and highlight cultural heritage resources.



Figure 2-1: Active transportation, mixed-use developments, environmentally sustainable development, a variety of housing types, and access to parks and open spaces are all part of the eight guiding principles for the development of successful new communities.













Figure 2-2: New communities should include the protection of the natural environment, access to parks and open spaces, and a variety of housing types that contribute to vibrant, people-friendly streets.

#### **Steps for New Communities** 2.2

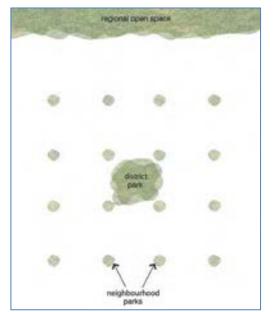
In designing successful new communities within the City of Kingston, the following steps, in order of importance, should be taken:

#### Step 1 – Identify environmentally sensitive areas, parks and open spaces

Environmentally sensitive areas are identified in order to protect wildlife and vegetation, while open spaces are created to provide the City with much needed breathing space, and enhance local tourism by enticing visitors. Parks encourage outdoor recreation and social interaction, and they provide space for community events and gatherings. Parks and open spaces provide an escape from day to day urban living, with elements that encourage both passive and active outdoor recreational uses as well as active transportation. Preserve environmentally sensitive areas and incorporate parks and open spaces as the highest level priority when designing and developing new communities. Centrally position and link larger District Parks and smaller Neighbourhood Parks with existing parks, open spaces, and trails to extend this green network into the community.

#### Step 2 – Create circulation networks

Circulation networks are important structural elements of communities. They link residents with local destinations, adjacent neighbourhoods, and the rest of the City of Kingston. Design and develop new communities with a strong circulation network that provides sufficient access for all forms of transportation, including prioritizing pedestrians, cyclists, and transit riders over private motorists.



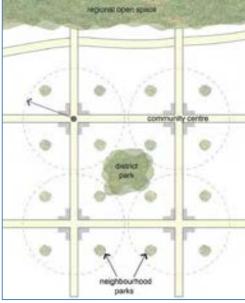


Figure 2-3: (Left) Successful neighbourhoods should be anchored by parks and open spaces. (Right) A well-connected circulation network should accommodate all forms of active transportation.

#### Step 3 – Provide centres and amenities for the community

The centre of a community houses some of its most important functions including schools, libraries, public facilities, and shopping areas. Centres also house transit amenities and are ideal locations for higher density, mixed-use buildings. The centre of a community should be conveniently positioned and highly accessible to local residents. It should be situated within a 5-10 minute walk of major parks and most local residents.

#### Step 4 – Determine appropriate building orientation and design

Building orientation and design greatly influences the way streets and communities are perceived. Buildings oriented to face the street with suitable massing and setbacks provide a sense of enclosure and appropriate scale. This is enhanced by providing street trees, which over time form a canopy over the street. Buildings designed with quality materials, sufficient windows, and sensitive architectural detailing, provide streetscapes with visual quality and a sense of place. When appropriate orientation and design are combined, communities are able to establish a sense of identity. Opportunities for casual surveillance should also provide local residents and visitors with a sense of comfort and an improved perception of safety. This is also an appropriate time to consider universal (barrier-free) design. Designing communities for all ages and abilities makes neighbourhoods accessible for everyone and can provide opportunities for people to age in place.

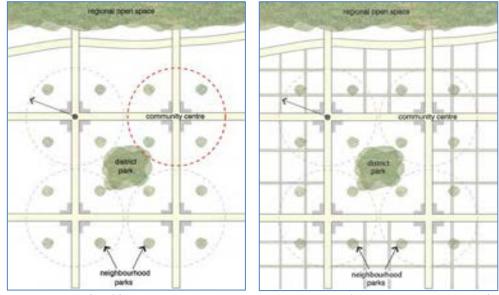


Figure 2-4: (Left) Provide centres and amenities for the community. (Right) Local roads, based on a grid or modified grid pattern, provide continuous connections through neighbourhoods.

Additional information: For information about developing or re-developing individual lots in communities, please refer to the Design Guidelines for Residential Lots, which includes guidelines regarding site design, building orientation, height, massing, and building features and details, as well as general information on sustainable building design, universal (barrier-free) design, and Crime Prevention Through Environmental Design (CPTED).

### Section 3 The Natural Environment, Parks and Open Space

#### 3.1 **Environmentally Sensitive Areas and Natural Hazards**

- a. Identify and preserve environmentally sensitive areas. Protect wildlife, natural vegetation, and environmentally sensitive areas through a careful balance of preservation and integration. Where development is located adjacent to environmentally sensitive areas, appropriate buffering and careful design consideration will be necessary to avoid negative impacts.
- b. Maintain, restore, or where possible, improve the health and quality of environmentally sensitive areas, as well as connections between environmentally sensitive areas.
- c. Design new communities with strong visual and, where appropriate, physical links to open spaces and natural areas including parks, valleys and watercourses. Include prominent views and lookouts where suitable, with no negative impact on environmentally sensitive areas.





Figure 3-1: The protection of environmentally sensitive areas and the integration of parks and open spaces should be carefully considered when developing new communities.

- d. Avoid floodplains and steep slopes and locate development safely away from natural hazards.
- e. Connect communities to adjacent natural areas, where appropriate, by bordering them with streets and/or open space, as opposed to the backyards of private development. This will help maximize public views and increase public awareness and appreciation of these areas. Restrict access where necessary due to natural hazards and environmental sensitivity. Care should be taken in the orientation of backyards onto environmentally sensitive areas to avoid generating negative impacts such as encroachment of non-native species, dumping of lawn and garden waste, and draining of pool water.
- f. Explore opportunities to develop appropriately designed higher density buildings near natural areas to maximize views and awareness of the landscape. Development should have no negative impact on environmentally sensitive areas and should be compatible with adjacent land uses with respect to sunlight access, views and privacy.



Figure 3-2: Connect communities to adjacent natural areas, where appropriate. Care should be taken in the orientation of backyards onto environmentally sensitive areas to avoid generating negative impacts such as encroachment of non-native species, dumping of lawn and garden waste, and draining of pool water.



Figure 3-3: New communities should have strong visual and, where appropriate, physical links to natural areas, including valleys and watercourses.

#### 3.2 Stormwater Management

- a. Maintain natural drainage networks and preserve environmentally sensitive areas to reduce water runoff and provide for the natural filtration of stormwater. Natural drainage networks must be maintained in order to retain functional surface drainage and watercourses, and to support stormwater management infrastructure (such as stormwater management ponds). Water should soak into the earth where it falls, reducing the amount of water diverted into engineered ponds and sewers.
- b. Integrate stormwater management facilities as community features by designing them to maximize ecological, aesthetic and safety objectives. Connect stormwater management facilities with other public open spaces, as well as with adjacent sidewalks, public trail networks, and neighbourhoods.
- c. Establish strong public exposure for stormwater management facilities. Use pond edge treatments such as shallow slopes and dense plantings of native, non-invasive species that filter and hold water and act as habitat. Create defined edges at public gathering points, such as overlooks with railings, to increase public safety and discourage direct access. Avoid fencing to promote public awareness and surveillance opportunities, but allow it where necessary for safety reasons. Use bio-swales as part of the development of public streets or parking areas.







Figure 3-4: (Top left and bottom) When new stormwater management ponds are required, they should be incorporated as a community asset. (Top right) Use bio-swales as part of the development of public streets.

#### 3.3 **Open Space**

- a. Create a linked network of open spaces that support active transportation and recreation. Determine the location of new parks and open spaces (large and small) prior to other design considerations. Parks and green space provide resting areas, gathering spots and recreation opportunities for residents and visitors. Parks and open spaces should be core organizational elements of new communities.
- b. Distribute green space throughout the neighbourhood so that there are parks and open space within a reasonable walking distance of all homes. Green spaces should provide various active and passive recreation opportunities, and should be developed in accordance with the City of Kingston's Parks and Recreation Master Plan.
- c. Incorporate existing environmentally sensitive areas into neighbourhoods as protected open space, where appropriate. Woodlands and marshes, for example, can be features of the community, provided there are no negative impacts on the environmentally sensitive areas.
- **d. Provide buffers** to ensure that environmentally sensitive areas are not damaged by development.
- e. Provide significant open frontage on public roads for all parks and open space. This is important for visibility, security and accessibility. Minimize the number of building lots flanking or backing onto parks.
- f. Provide shade in resting areas, gathering spots and recreational areas, as well as along routes for active transportation.





Figure 3-5: Frame parks by facing adjacent houses onto the open space for safety, visibility, and accessibility.







Figure 3-6: Create a network of parks that are equally distributed for public access.

#### 3.4 **Parks**

- a. Locate parkland at the earliest stages of community design to ensure that it is integral to community structure and in desirable locations.
- b. Configure parkland to support the diverse amenity needs of the community, including active recreation (e.g. sports fields, playgrounds, etc.) and passive use (e.g. open lawns and community gathering areas, etc.).
- c. Design parkland in a park hierarchy. Parks should be able to accommodate both planned amenity needs including buffering from neighbourhood residences and streets, access and grade mitigation. Design District Parks to be a minimum of 2 hectares; Neighbourhood Parks to be between 0.8 and 2 hectares; and Parkettes to be at least 0.2 hectares in size. Parkettes provide comfortable areas for passive recreation, public gathering, attractive landscaping, and public art.
- d. Preserve and integrate, where appropriate, natural features such as woodlands and watercourses adjacent to parks as a means of maintaining a sense of connection with the original landscape. Native, non-invasive plant materials are preferred for landscaping and should be used adjacent to existing natural features.



Figure 3-7: Provide spaces for active and passive recreation.

- e. Locate parks along major streets, at the end of streets, and close to schools to create a high-profile and attractive public realm and enhance safety through casual surveillance.
- f. Locate parks adjacent to school sites where possible to encourage shared use of outdoor facilities.
- g. Design parks to provide a social focus within a five to ten minute walk of the surrounding residences.
- h. Connect a network of parks through communities to create focal points and foster neighbourhood identity.
- i. Link major park amenities using highly visible connections including pathways and bicycle paths to and through these areas.
- Buffer disruptive parts of active recreation parks such as lighting, noise, traffic and parking areas from negatively affecting adjacent residential development by using setbacks and landscaping.
- k. Locate parks so they can be open to a minimum of two sides of the public street or a significant proportion of the park perimeter, whichever is greater. It is accepted that this cannot be achieved where the park is located at a mid-block connection.

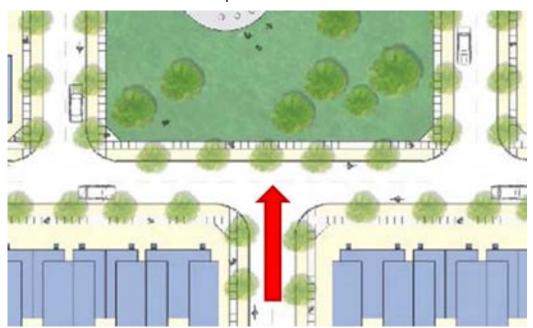


Figure 3-8: Locate parks at high profile locations such as along major streets and at the end of streets. It is preferred that parks be open to a minimum of two sides of the public street or a significant proportion of the park perimeter.

#### Multi-use Pathways 3.5

- a. Provide a well-connected pathway network to create active transportation, recreation and tourism opportunities.
- b. Connect new recreational pathways to existing networks, streets, parks and open spaces to create a continuous pathway network that provides recreation and transportation opportunities.







Figure 3-9: The design of recreation pathways should reflect the function and nature of the type of open space it occupies.

- c. Link paths to destinations such as community centres, other public properties, mixed-use areas, and nearby employment and commercial land uses. They should create strong links between new communities, open space, and environmentally sensitive areas, where appropriate. This will also enable people to choose a variety of transportation options.
- d. Design recreation pathways to reflect the function and nature of the type of open space it occupies. Path widths should be sufficiently wide to allow for two-way cyclist or pedestrian passage. Design all paths according to site-specific conditions and to meet accessibility guidelines. Design should also incorporate routing to avoid negatively impacting environmentally sensitive areas.
- e. Access points for pathways should accommodate a variety of users. Consider that people arrive by a variety of means, including car, foot, bicycle, or transit. Design entrances to accommodate persons with physical disabilities and therefore include safe and stable surfaces.
- f. Design multi-use pathways to distinguish between walking and cycling/roller blading areas to minimize conflicts.
- g. Include adequate pathway amenities such as seating, waste receptacles, lighting, signage, route information, and educational and historic information.
- h. Provide opportunities for shade along pathways.

## Section 4 Community Design

#### Community Structure 4.1

- a. Create communities that are distinct and identifiable, with a strong sense of place and a well-defined structure. Kingston's identity is especially evident in the older and more established communities of the inner-city, which help define the City's unique neighbourhoods. These communities, which demonstrate the City's early history of urban growth, are some of its most attractive and livable neighbourhoods. New communities should take cues from the successful elements of these neighbourhoods.
- b. Incorporate sustainable characteristics into the community including diverse building types, well-connected pedestrian routes, and respect for identity and the natural environment.
- c. Create a neighbourhood that is walkable from centre to edge. Locate all residential uses within walking distance of amenities and create a safe and interesting pedestrian environment to promote community health. Provide convenient pedestrian connections between key destinations such as adjoining parks and community uses, and commercial areas. Create bicycle networks using bike lanes, pathways, and appropriate and well-designed signage.
- d. Create identifiable neighbourhood centres and corridors that contain a variety of uses such as community facilities, community retail, small scale employment areas, open spaces, community gardens, and access to transit. Locate facilities such as schools, retail stores and restaurants, daycares, churches and parks as focal points, generally situated near major intersections, to facilitate social interaction.
- e. Locate higher density development close to neighbourhood centres and corridors to provide a 'critical mass' of population that can support community facilities, commercial services and transit activity. Density should generally decrease towards the edge of a community. Higher density is encouraged at the edge when it is adjacent to existing higher density uses, arterial or collector roads, or large open spaces.
- f. Provide a defined edge of the community that is a positive connection between adjacent areas. The edge is generally located within walking distance of the centre. It is typically defined by natural features (parks, agricultural lands); community facilities (schools, retail centres); urban infrastructure (arterial roads, railway lines); and/or the edge of an adjacent community.



Figure 4-1: New communities should create a positive connection between development and open spaces. Streets adjacent to parks and open spaces can be designed in a number of ways to maximize access and create a vibrant and active streetscape.

- g. Use single-loaded streets to face the perimeter of parks and other public open spaces. A significant proportion of the total perimeter should face onto the public street right-of-way.
- h. Provide the appropriate separation distance where a new community abuts a utility easement or railway right-of-way. In addition to separation distances, public open space buffers, linear parks, and street right-of-way buffers should be considered as an alternative to 'back-lotting' (refer to Section 4.2.m for additional information on back-lotting).
- i. Design the neighbourhood such that perimeter fences and sound attenuation walls are **not included.** They create areas of safety concern and are often vandalized and poorly maintained, detracting from the streetscape. Where such structures are required, provide visual breaks at regular intervals using columns, landscaping pockets, transparent sections or different materials.



Figure 4-2: New communities should be distinct and identifiable with a strong sense of place and a well-defined community structure. New communities should include a clear centre as well as an edge that defines their extent.

#### 4.2 Block and Street Network Design

- a. Create well-connected blocks and streets to promote wayfinding, accessibility, and a variety of lot sizes. New communities should be characterized by a well-connected grid of collector roads, local roads and lanes, characterized by short block lengths.
- b. Connect streets in new development to adjacent existing communities. Combined with a consistent block orientation, the number of connections should be maximized to filter traffic and assist in orientation.
- c. Base streets on a grid or modified grid pattern to maximize connections for vehicular, cyclist, and especially pedestrian traffic. This allows traffic to disperse to local destinations, reduces congestion, promotes walkability and improves public transit and emergency vehicle access. Modify the grid in response to the location of open spaces, built heritage resources or existing street conditions. Avoid suburban curvilinear streets, bulbed corners and cul-de-sacs.
- d. Use cul-de-sacs only where the topography or small size of a site constrains gridbased block development. In this situation, cul-de-sacs could be an appropriate form of block design. Where the topography or size of a site is not a constraint, cul-de-sacs should be avoided as they interrupt the flow of pedestrian and vehicle traffic.
- e. Provide pedestrian connections at the end of streets or cul-de-sacs to enhance the level of connectivity through the community.
- f. Assign adequate space for the dedication of future roadway and pathway connections where the edge of new communities abuts lands designated for future development. Adequate space must also be left for snow storage and street utilities.
- g. Maximize opportunities for passive solar gain by orienting streets and planning site layouts, as much as possible, to maximize the unobstructed availability of direct sunlight during winter months and shade during summer months.





Figure 4-3: Incorporate comfortable pedestrian connections/pathways at the end of streets, in cul-de-sacs and as mid-block connections.

- h. Organize new transit routes around a network of through streets to allow the City to serve new communities efficiently.
- i. Provide variation in block sizes to encourage the development of a mix of housing forms and densities.
- j. Do not use long block lengths. Blocks should generally range between a minimum of 200 metres and a maximum of 250 metres.
- k. Provide a through-block pedestrian walkway or a mid-block parkette in special circumstances where a block is longer than 250 metres. Mid-block connections should be a comfortable path width. Downcast pedestrian-scaled lighting should be provided as required.
- I. Consider incorporating rear lanes to eliminate the need for street facing garages and driveways. Appropriate locations for rear lanes include properties along collector roads or facing open spaces.
- m. Orient buildings to face the road. Back-lotting of public streets, or housing with the rear yard fence against a collector or arterial street, is discouraged because it is problematic for both safety and aesthetic reasons. Consider the use of design alternatives such as parallel local streets or front-lotting with rear lane access.
- n. Minimize pavement widths in the road right-of-way to reduce traffic speeds, reduce the urban heat island effect, and increase pedestrian safety.





Figure 4-4: Buildings should be oriented towards the street, providing a sense of enclosure and enhanced safety through "eyes on the street". Do not orient lots to back on to streets. This creates empty and sterile streetscapes and potentially unsafe conditions for pedestrians.

#### 4.3 Lot Sizes and Variety

- a. Provide a variety of lot sizes to ensure a diversity of housing types, sizes, and designs. Lot sizes have a direct impact on development costs, density, and affordability. Development in new communities should achieve an appropriate balance of large and small lot sizes and a variety of development types and densities.
- Make lot shapes simple and rectilinear so as not to limit design and siting options. Variations to the traditional lot may be considered to manage slope, property boundary, or density issues.
- c. Ensure corner lots have adequate width to permit sufficient building setbacks from both streets.
- d. Increase residential density for lots adjacent to appropriate locations including community centres, public transit facilities, or parks and open spaces.
- e. Establish buildings with a compact built form to reduce building footprints and use land more efficiently.
- f. Provide a diversity of housing options including ground-oriented and multi-level units for a wide range of residents and household types.
- g. Provide a variety of housing types on each street or block as a means of building a distinct neighbourhood. Ensure visual interest along streetscapes by avoiding the overuse of identical house façades. Buildings should be easily distinguishable from one another.
- h. Locate higher density buildings at corners rather than at mid-block.

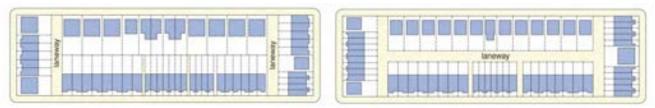


Figure 4-5: Development in new communities should achieve an appropriate balance of large and small lot sizes and a variety of development types and densities.

#### 4.4 Transit Supportive Design

- a. Treat transit as a central function of new communities, where facilities are attractive, convenient, and situated where pedestrian activity is high.
- b. Place compact, higher density development close to transit facilities. Compact development forms support transit usage.
- c. Locate transit facilities where they are convenient to use, at locations such as neighbourhood hubs, schools, and parks where pedestrian activity is high and good connections are provided. This will encourage higher levels of ridership and efficient operation.
- d. Ensure neighbourhood transit stops are located at a short walking distance (under 400 m) from most uses. Stops for higher order transit routes, such as Express Service, may have greater stop spacing.
- e. Provide a mix of land uses and higher residential densities at key locations to generate pedestrian traffic and activity throughout the day, making transit as attractive as possible.
- f. Discourage auto-dependent uses at the community centre. Such uses include drive through retail and car wash facilities.
- g. Provide accessible transit stops and amenities. These contribute to the security and comfort of transit users. Make facilities for transit as attractive as possible to help reduce street congestion and prevent pollution.
- h. Link cycle and pedestrian paths to transit facilities. Provide secure bicycle parking and storage spaces at transit stops to encourage use.



Figure 4-6: Transit facilities should be situated at key destinations, where pedestrian activity is high, and where sufficient pedestrian connections are provided.

#### 4.5 Community Facilities and Non-Residential Uses

- a. Incorporate community facilities as focal points and activity nodes in new communities to reinforce community identity. In addition to the homes, neighbourhoods are the location of non-residential uses including schools, libraries, daycares, places of worship, community centres, and commercial services. These buildings should generally be integrated at or near the centre of the community.
- b. Site compatible community buildings nearby or in the same facility to promote visibility, maintain community focus and ensure efficient use of land and building resources. A variety of shared use options should be explored, including combining a municipal office and library; a multipurpose hall; education facilities; community group space; playing fields; and parking.
- c. Design facilities using the highest standards in environmental sustainability, through site and building design.
- d. Create opportunities for neighbourhood commercial and mixed use buildings in neighbourhood centres and on main streets to increase the convenience of goods and services for residents.
- e. Place buildings in neighbourhood centres and on main streets near the front lot line to define the street edge and give prominence to the building functions at these locations. Parking should be located at the side or rear of the building.
- f. Locate transit stops immediately adjacent to civic and commercial facilities.
- g. Encourage community gardens in proximity to other community uses, higher density residential developments, and transit.
- h. Provide appropriate pedestrian-oriented lighting and clear views to ensure the safety and security of users at mailboxes and noticeboards.





Figure 4-7: (Left) Community facilities such as schools create a public focus and should be carefully sited and designed to promote interaction. (Right) Main street commercial developments provide goods and services to surrounding neighbourhoods and support active transportation.



Figure 4-8: Not only are streets necessary for the transportation of persons and goods throughout the city, they are also important spaces for social interaction between members of the local community. Main street commercial areas offer services to surrounding neighbourhoods.



**Figure 5-1:** Streets play an integral role in creating a community and should provide opportunities for social interaction and accommodate active transportation.

### Section 5 **Streets**

#### **General Form** 5.1

- a. Create strong visual and physical links by configuring streets to maximize views of parks, landmark buildings, and the area around the community.
- b. Provide a streetscape design that best meets a high standard of functional and aesthetic considerations. Design roads and streets to enhance adjacent properties through the use of high quality landscaping, lighting, paving materials, and on-street parking. As development applications are reviewed, the City will consider alternative options, provided they meet technical standards.
- c. Accommodate active transportation (i.e. walking, cycling and transit) on safe, welldesigned complete streets. Design streets for multiple modes of travel so that active transportation is prioritized by incorporating sidewalks and bicycle infrastructure. While streets are connectors for moving goods and people, they are also a place for members of the community to meet and socialize. The careful design of pedestrian amenities and paths will ensure pedestrians and vehicles safely share the streets.
- d. Select the narrowest reasonable street width and right-of-way. Street design should take into account adjacent land use types, snow storage, utilities and the needs of private, public and emergency vehicles; however, it should also minimize pavement width to slow traffic, create intimate streetscapes, facilitate pedestrian travel and crossings, and reduce stormwater runoff.
- e. Give primary consideration to the City's requirements for maintenance and snow clearing when contemplating the design and construction of new streets.
- f. Locate above-grade utilities out of sight in areas away from intersections, sight lines and view corridors in order to reduce their visual impact on streetscapes. Cluster or group utilities to minimize visual impact. Screen utilities using structures or landscaping or contain them within streetscape features, such as gateways, lamp posts, transit shelters, etc., except where they are required to be visible for safety reasons (e.g. fire hydrants, gas valves). Determine utility locations in new communities by considering the location and hierarchy of streets, stormwater facilities, parks and open space elements, as well as utility access considerations.

#### 5.2 Collector Roads

- a. Design Collector Roads to reflect their role as community connectors and pedestrian destinations. Collector roads serve a variety of functions, including providing key routes for transit, connections between communities, and connections to Local Roads. As a result, the design requirements for Collector Roads should be more substantial than Local Roads.
- b. Permit on-street parking on both sides of collector roads where adjacent to streetoriented, commercial or mixed-use areas.
- c. Place sidewalks on both sides of the street where possible. In cases where this is not feasible, the on-street parking lane should be provided on the side of the street that contains a sidewalk to act as a buffer between pedestrians and vehicles.
- d. Provide bicycle infrastructure on both sides of the street in a manner that adheres to the standards set by the City of Kingston. Place bicycle lanes between the travel lane and the onstreet parking lane or between the on-street parking lane and the curb where appropriate.
- e. Use narrow travel lane widths to accommodate wider pedestrian areas.
- f. Use barrier curbs for all Collector Roads.
- g. Reduce the number of curb cuts along the street. Incorporate alternatives to single access driveways to individual properties including joint access driveways or rear lanes. Where required, co-locate driveways and minimize their width.

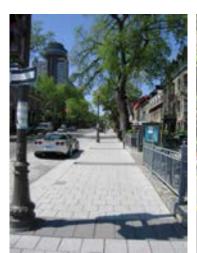




Figure 5-2: (Left) On Collector Roads, on-street parking should be provided on both sides of the street where adjacent to commercial or mixed use areas. (Right) Provide appropriate cycling infrastructure on Collector Roads.

#### **Sample Collector Road\* - Residential (Boulevard Next to Curb)**



Figure 5-3: The illustration above demonstrates what a Collector Road may look like in a residential condition.

\*The cross-section on this and the following pages may be subject to change in coordination with updated engineering design standards.

#### Sample Collector Road – Residential (Sidewalk Next to Curb)



Figure 5-4: The illustration above demonstrates what a Collector Road may look like in a residential condition.

#### Sample Collector Road - Main Street Commercial/Mixed-Use

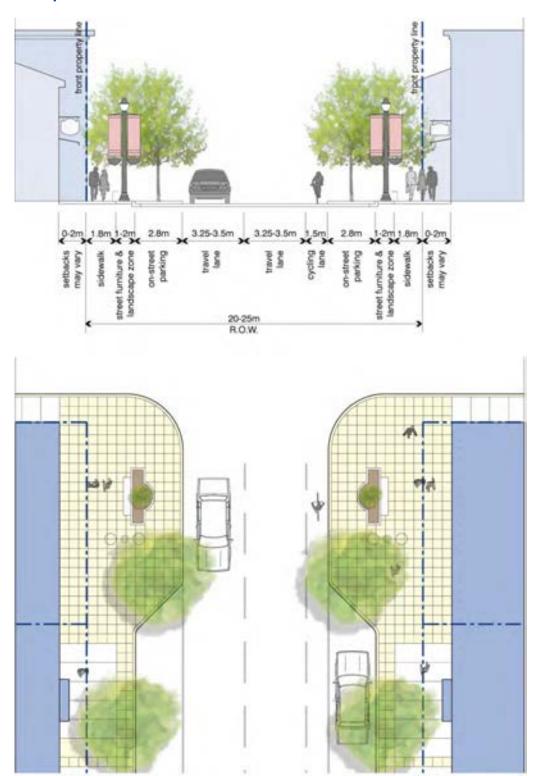


Figure 5-5: The illustration above demonstrates what a Collector Road may look like in a main street commercial condition.

#### 5.3 **Local Roads**

- a. Design Local Roads to reflect their role as community streets and social gathering places. Local Roads play a dual role, both as community socialization spaces and as transportation corridors. The design requirements, while less substantial than Collector Roads, should create 'intimate' pedestrian-scaled streetscapes that promote walking and residential activities, but discourage speeding and through traffic.
- b. Design Local Roads with a narrow pavement width to reduce traffic speeds. Ensure a sufficient width of asphalt for two traffic lanes and one on-street parking lane.
- c. Place sidewalks on both sides of the street in higher density areas and near community facilities such as schools.
- d. Use mountable curbs for all Local Roads, except where barrier curbs would be more appropriate to protect special features.
- e. Consider bicycle movement a normal part of Local Road traffic movement; no dedicated bicycle infrastructure is required.
- f. Use pavement widths that are cycling-friendly on Local Roads.



Figure 5-6: Local Roads should be intimately scaled in order to promote pedestrian activity as well as social interaction.

## Sample Local Road – Residential (Boulevard Next to Curb)

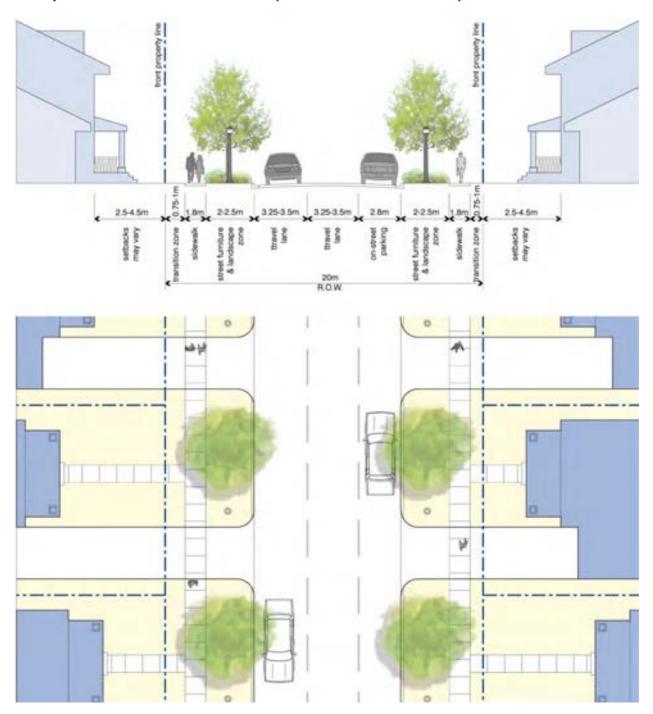


Figure 5-7: The illustration above demonstrates what a Local Road may look like in residential conditions.

#### 5 4 Lanes

- a. Design lanes to function as public streets. The term "lane" refers to double-loaded rear access roads, being either privately or publicly-owned and maintained. Lanes may be used in residential areas in new communities, or in mixed-use areas to service commercial uses and provide access to structured and below-grade parking.
- **b.** Consider using lanes for access where development fronts onto a Collector Road, to provide access to parking on narrow lots, and in mixed-use areas.
- c. Orient the main building face and ground-level access to the street for buildings with lane access. Where lanes are used to provide access to residential parking facilities, the primary façade of the building should not face the lane, nor should primary access to the building be provided from the lane.
- d. Consider attaching rear lane single car garages as a pair to provide a consolidated appearance.
- e. Identify snow storage locations with the design of new lanes. Set aside areas for this purpose.
- f. Incorporate permeable materials where sufficient drainage exists.
- g. Provide additional lane access points in a central location in cases where block lengths are in excess of 250 metres.
- h. Apply a small minimum setback between the garage and the edge of the rear lane to maintain adequate distance between the vehicular traffic on the lane and the garage.





Figure 5-8: Rear lanes should be considered where development fronts onto a Collector Road network.

## Sample Lane - Residential

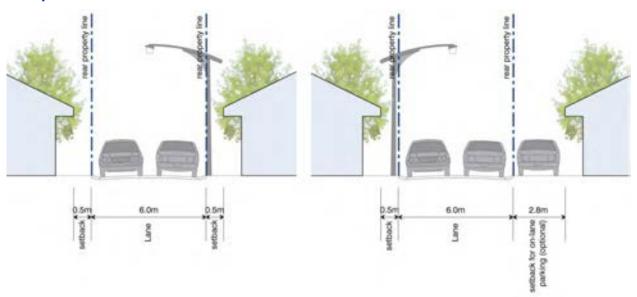


Figure 5-9: The illustration above demonstrates what a lane may look like in residential conditions.

#### 5.5 **Driveways**

- a. Minimize curb cuts along the street to increase opportunities for on-street parking, landscaping treatments and more continuous pedestrian access. For multi-unit buildings. coordinate service driveways with those of parking lots, and coordinate delivery, loading and refuse areas so they are large enough to accommodate the needs of all users.
- b. Design driveway widths and driveway curb cuts to be no wider than the width of the garage, which should not dominate the width of the front façade of residential dwellings. This will reduce the dominance of the garage along streetscapes in communities, and will achieve the principle of a balanced house façade to garage. Wide garages can limit opportunities for "active" design features such as front porches and windows, front facing rooms, and public safety through casual surveillance of the street from the house. Limiting the width of the garage and driveway in relation to the width of the lot will also allow for adequate room for onstreet parking, as well as adequate space in the boulevard for snow storage and the successful growth of street trees.
- c. Provide driveway access for corner lots from the minor street, with the exception of row dwelling blocks and semi-detached housing.
- d. Consider using permeable surfaces for driveways to minimize run-off.





Figure 5-10: (Left) These oversized driveways and wide curb cuts limit opportunities for on-street parking. (Right) The driveway is no wider than the garage, leaving plenty of room in the front yard for landscaping and snow storage.





Figure 5-11: (Left) Driveway widths, as well as driveway curb cuts, should be no wider than the width of the garage. (Right) In certain locations, rear garages and/or lanes are an alternative to front yard garages, allowing the entire front of the house to face the street contributing to the activity and safety of the street.

#### 5.6 Boulevards and Sidewalks

- a. Create boulevards that combine safe, unobstructed pedestrian travel routes with places to stop and socialize. The boulevard refers to the entire area of the street (including the sidewalk) between the front property line (or building face) and the edge of the curb. Welldesigned boulevards are important elements for accommodating pedestrians and other forms of active transportation.
- b. Design boulevards to reflect their adjacent land use (i.e. wide sidewalks in mixed-use or commercial areas).
- c. Locate the street furniture and landscaping between the sidewalk and vehicle traffic, wherever possible. This zone contains landscaped areas with site furnishings and infrastructure facilities such as benches, bicycle racks, transit shelters, and utilities.
- d. Create sidewalks that are dedicated to the movement of pedestrians. This can be a multiuse trail or a pedestrian path. Locate sidewalks adjacent to buildings or the property line. The sidewalk should remain clear of obstructions, both horizontal and vertical, at all times.
- e. Provide a transition zone located between the sidewalk and the building or property line. This zone (approximately 1 m) provides a dedicated area on mixed-use sites for window shopping, spill-out retail, building entrances, street furniture and signage.
- f. Construct continuous sidewalks of textured concrete to aid pedestrian movement and barrier-free accessibility. Keep sidewalks continuous where they cross driveways.
- g. Consider limited use of feature paving bands constructed of materials other than asphalt (including pavers, impressed concrete or concrete). These materials may continue across driveways and signalized intersections to indicate pedestrian priority.
- h. Plant street trees within the Street Furniture and Landscape Zone (refer to Figure 5-13). Use double rows of trees in key areas where space allows, such as next to open spaces and wider boulevards. See the Street Trees section for further details.
- i. Provide continuous sidewalks on both sides of streets, wherever possible. Wide sidewalks create a comfortable and safe environment for pedestrians. Sidewalks should always be located on both sides of streets along collector or arterial roads and in higher density residential areas, commercial or mixed-use areas, and where community facilities such as schools are located.
- j. Separate sidewalks from the street edge by using landscaped strips to increase pedestrian safety and comfort.

- k. Expand sidewalk widths where pedestrian activity is concentrated. At neighbourhood hubs, design sidewalks as high quality spaces that include street furniture, street trees, special paving, signage, public art and seasonal banners.
- I. Provide adequate lighting for security without adding to light pollution by placing downcast lights at an appropriate height for pedestrians.
- m. Provide seating in shaded areas for social interaction, casual surveillance, and to support accessibility. Include waste receptacles at these locations.

### **Streetscape Design Elements**

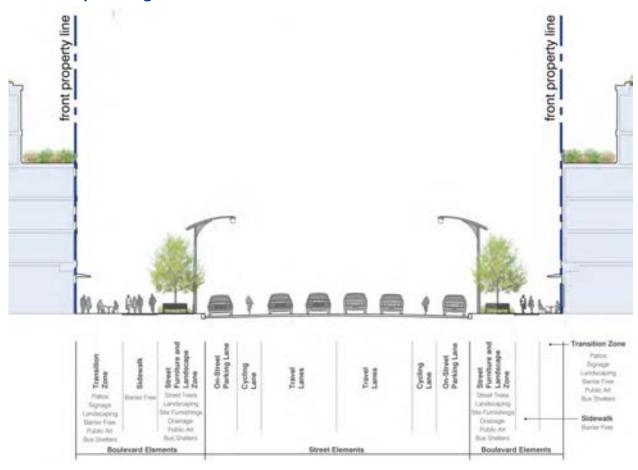


Figure 5-12: The illustration above depicts those roadway and boulevard elements which can be incorporated to comprise a streetscape.

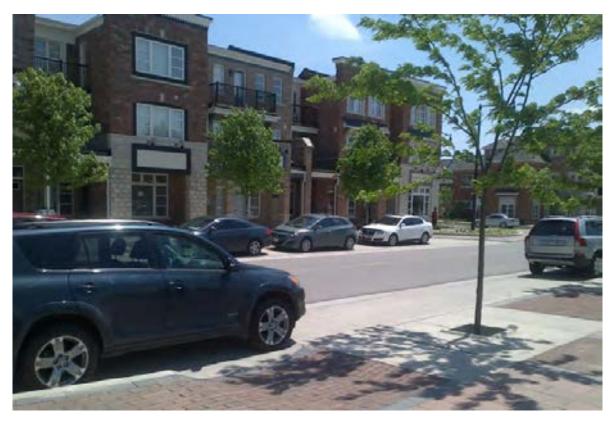






Figure 5-13: Boulevards should be designed to be pedestrian-supportive and should include street trees and other landscaping elements.

#### 5.7 Traffic Calming

- a. Streets in new communities should be designed so that traffic calming elements are built into the design of the roads. Traffic calming is a term used to describe a combination of physical features that are intended to improve traffic use on roads, alter driver behaviour, and improve safety conditions for everyone who uses the street.
- b. Use the narrowest reasonable street width and right-of-way that accommodates all modes of transportation.
- c. Install curb extensions at intersections to shorten crossing distances and calm traffic.
- d. Incorporate treed bump-outs in combination with on-street parking. Strategically placed along the side of the roadway, these elements force drivers to slow down by narrowing the traffic lane.
- e. Create minor variation in road alignment to increase demands on driver attention and reduce speeds. By reducing the predictability of the road, drivers are forced to focus on the task of driving, thereby decelerating and increasing safety for all road users.
- f. Use shortened block lengths and retain unpredictable elements (stops, crossings) that provide added motivation for drivers to obey speed limits.
- g. Consider vertical traffic calming only after other elements have produced no effect. Elements such as raised crosswalks and speed humps can reduce speeds, but they also interfere with transit movement, and so should be specifically avoided on transit routes.





Figure 5-14: Crosswalks, on-street parking, and curb extensions are all ways of slowing traffic and improving the pedestrian experience.

#### 5.8 Crosswalks

- a. Ensure crosswalks are continuous and connected to adjacent sidewalks. The location of crosswalks and design of curb cuts should conform to the provisions in the Accessibility for Ontarians with Disabilities Act.
- b. Clearly designate crosswalks for safety, with appropriate surface markings or variation in surface treatment, signage, and curb ramps for wide crossings.
- c. Consider additional mid-block pedestrian signals and courtesy crossings with specialized markings and signage at locations with high pedestrian volumes.
- **d.** Time traffic signals so that pedestrians have adequate time to clear the crossing. Incorporate audible signals and pedestrian countdown devices where possible.

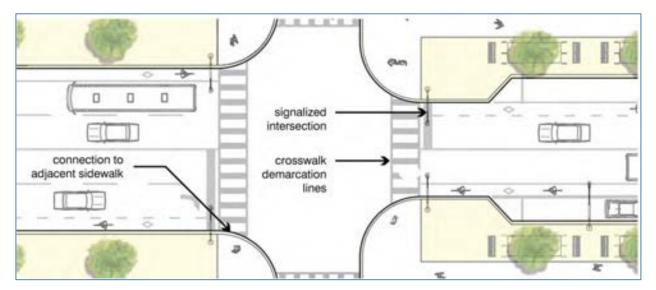


Figure 5-15: Crosswalks should be clearly marked in order to promote pedestrian safety at signalized intersections.



Figure 5-16: Crosswalks are clearly-defined, properly graded and connected to the sidewalk network. Defined crosswalks remind users of pedestrian priority.

#### Street Trees 5.9

- a. Plant street trees at regular intervals to create a street canopy that will integrate them as a major component of all streets. Mature street trees provide shade for pedestrians, slow traffic, reduce the urban heat island effect, enhance the visual and environmental qualities of the street, increase land value, and provide a buffer between the pavement, sidewalk and buildings.
- b. Locate street trees within the street furniture and landscape zone and offset them from the curb to accommodate snow storage, large vehicle movements, and to minimize salt damage, and to allow for enough room for when the trees reach physical maturity.
- c. Provide adequate soil volume for trees in hard boulevard surface environments and ensure that utility trenches are placed away from the growing space needed for proper street tree establishment.
- d. Preserve existing street trees wherever possible, as mature street trees create a greater sense of enclosure along streets.
- e. Use trees to create canopy and shade especially in parking areas and passive open space areas. Trees should be spaced to allow 'filtered' views for security purposes.
- f. Consider the type and location of trees to avoid interference between higher branching trees and truck traffic, sight lines, utilities, rooftop solar panels, etc.
- g. Incorporate a variety of native tree species. Using only one type of tree increases the risk of tree loss to disease or infestation (e.g. emerald ash borer, Dutch elm disease).





Figure 5-17: Street trees shade pedestrians, reduce the urban heat island effect, and enhance the quality of the street.

#### **Street Furniture** 5.10

- a. Incorporate consistent, carefully located street furniture. Street furniture helps create a unique sense of place and is an essential component of a pedestrian-supportive streetscape, offering opportunities for rest, socializing, and casual surveillance.
- b. Develop street furnishings within an overall concept and provide a consistent and unified appearance that is appropriate for the context.
- c. Avoid obstructing pedestrian or vehicular circulation. Place street furniture to avoid conflicts with accessibility requirements and impacts on sidewalk maintenance, particularly snow removal. Street furniture should not result in a requirement for hand shoveling for proper sidewalk access.







Figure 5-18: Street furnishings should be developed within an overall concept and should provide a consistent and unified streetscape appearance.

#### **Transit Amenities** 5.11

- a. Include transit stops with a shelter for weather protection and seating, especially along the side of a collector street with high pedestrian traffic.
- **b.** Add basic amenities to transit shelters, including seating and route information.
- c. Connect sidewalks directly to transit shelters to encourage active transit use and to ensure safety and convenience. Locate transit shelters away from the sidewalk (by 0.3 m) in order to allow sufficient space for snow clearing.
- d. Design transit stops for barrier-free access and locate them in a way that does not interfere with pedestrian movement.
- e. Link cycle and pedestrian paths to transit facilities. Provide secure bicycle parking and storage spaces at transit stops to encourage use.

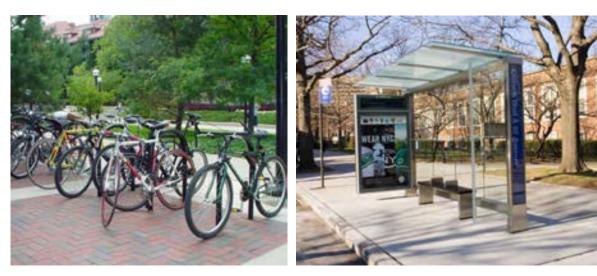


Figure 5-19: Transit stops should connect to an adjacent sidewalk with barrier-free access. Where space permits, cycling facilities should also be provided.

#### 5.12 Lighting and Wayfinding Signage

- a. Use well-placed lights and signage to create safe, active streetscapes. Locate all lighting within the Street Furniture and Landscape Zone. Downcast, pedestrian-scaled lighting. especially in high traffic walking areas, enhances safety and visibility on streets. In key areas, lighting can be used to accent special features, such as buildings, landscaping, signage, etc.
- b. Consider sustainability and the impacts of light pollution when choosing and locating lighting. This includes evaluating energy efficiency, directional lighting that reduces wasted energy, using solar power, and using sensors to regulate brightness and usage.
- c. Provide additional downcast pedestrian-scale lighting in high traffic pedestrian areas such as key intersections, transit stops, mid-block connections, etc.
- d. Minimize outdoor light pollution by using full cut-off fixtures, shielding lights and directing fixtures downwards. Design of lighting direction should consider the impacts of light pollution and potential negative impacts on neighbouring properties and any adjacent environmentally sensitive areas.
- e. Use clear, legible signs for directions and building identification, entry signs, visitor parking
- f. Place signs and building or property numbers in readily visible locations that are consistent and well-lit.





Figure 5-20: Light standards should be well-placed and downcast to enhance safety and visibility.

## 5.13 Utilities

- a. Enhance the streetscape by hiding and combining utilities. Concealing service infrastructure and utilities contributes to attractive streetscapes. Consider utilities as an integrated component in building design and the public realm.
- b. Bury utilities below grade in urban residential communities. This should typically be in the boulevard section of the right-of-way, where feasible. The use of a joint utility trench is encouraged for access and maintenance benefits.
- c. Group above-grade utilities in single locations chosen based on access, street hierarchy, and location of stormwater facilities, parks and other open space components. Avoid grouping or placing above-grade utilities directly in front of homes or businesses.
- d. Incorporate utilities into multi-unit building design. This includes utility cabinets, transformer vaults, hydro meters and gas meters. Where this is not possible, place utilities in discrete locations screened from public view, where they will not interfere with pedestrian movement or transit stops.
- e. Explore new and innovative solutions for integrated utility services to minimize street clutter. Products that incorporate street lighting and telecommunication facilities within the same pole are encouraged.



**Figure 5-21:** Utilities should be buried, typically in the boulevard section of the right-of-way, where feasible, and in a way that doesn't interfere with the growth of street trees.

# Section 6 Parking

#### **On-Street Parking** 6.1

- a. Provide on-street parking wherever possible to reduce requirements for surface parking lots. On-street parking enhances safety and acts as a traffic calming tool by reducing vehicle speeds and providing a physical barrier between the pedestrians and moving vehicles. This, in turn, supports pedestrian activity and animates the street.
- b. Integrate parallel on-street parking rather than perpendicular or angled parking to minimize the overall width of the street and optimize sight-lines.
- c. Locate on-street parking within curb extensions, where appropriate, such as along collector roads. Curb extensions can define additional roadway width dedicated to on-street parking.
- d. Landscape curb extensions with street trees or low level ground cover and design them to accommodate snow storage.





Figure 6-1: Parallel on-street parking is preferred over perpendicular or angled parking to minimize the overall width of the street and to optimize sight lines.

#### 6.2 Structured Parking

- a. Integrate structured parking seamlessly into the surrounding community. To avoid large surface parking lots, structured parking should be considered. Structured parking can be incorporated as mixed-use buildings, maintaining a positive urban environment and allowing more parking spaces and more efficient land use.
- b. Integrate an active at-grade use (such as retail) for parking structures fronting onto streets or open spaces. This will provide attractive façades, animate the streetscape and enhance pedestrian safety.
- c. Consider a vertical mix of parking and residential/office above as a preferred development model, with parking on the lower floors and residential or office above. Shallow retail or office units should face the street to minimize the visual impacts of the structured parking lots.
- d. Locate vehicular access to parking structures at the rear and/or side of buildings away from main building frontages and major streets.
- e. Locate pedestrian entrances for parking structures in highly visible locations adjacent to main building entrances and public streets. Incorporate Crime Prevention Through Environmental Design (CPTED) principles including enhanced lighting, defined exits, and avoiding hidden areas.
- f. Screen parking within a structure from view at sidewalk level. Enhance the street-level wall through architectural detailing and landscaping.





Figure 6-2: The street wall of a parking structure should be enhanced through architectural detailing and landscaping. Structured parking should contain active uses at-grade in order to provide attractive façades and to animate the streetscape.

#### 6.3 **Surface Parking**

- a. Design parking areas to reduce their visibility. Locate surface parking areas at the side or rear of multi-unit buildings in areas that incorporate natural surveillance such as pathways. communal areas, and exercise and meeting rooms.
- **b.** Plan for the long-term redevelopment of surface parking as future building sites by designing the layout of buildings to consider site access, landscaping and site servicing that will permit the intensification of these sites. Ultimately, these surface lots will become prime opportunities for further intensification.
- c. Avoid constructing large areas of uninterrupted parking. Limit individual parking aisles to a maximum of 30 spaces in length and visually divide lots into smaller courts. Configuring the parking this way will reduce the overall visual dominance of the surface parking area and minimize the impact on the public streetscape.
- d. Minimize the total amount of parking by exploring shared parking between adjacent properties, particularly in the evenings, weekends and other off-peak periods.
- e. Preserve sight lines to surface parking areas and primary building façade, but screen parking with softened views at sidewalk level by using landscaping such as trees and shrubs, or other interesting visual features. Incorporate CPTED principles including an easily observed location, natural view corridors, and coordinated landscaping and lighting.
- f. Provide adequate buffers between parked vehicles and the sidewalk where parking areas are adjacent to a public sidewalk. Landscaping, bollards, and other features can be used to create this separation. This buffer should be located within the private realm to retain the total sidewalk width.





Figure 6-3: (Left) Landscaped islands delineate the parking areas, and trees provide shade and reduce heat island effects. (Right) Permeable surface treatments, including permeable pavers or asphalt, should be considered to promote on-site water retention, thus reducing dependency on the City's storm sewer and combined sewer system.

- g. Clearly define boundaries by using planting strips, landscaped traffic islands and/or paving articulation to separate adjoining uses, site boundaries, vehicle routes, parking courts, and pedestrian walkways.
- h. Provide landscaping that is proportionate to the overall parking lot size, using approximately 1 tree for every 8 parking spaces. Use plant materials with appropriate yearround appearance, hardiness, and maintenance requirements. Landscaping improves edge conditions and minimizes visual impact, surface water runoff and heat island effects. Define areas for accommodating snow storage.
- i. Locate pedestrian entry paths adjacent to entry drives. Minimize cross circulation between vehicles and pedestrians. Prevent vehicle overhang into paths.
- **Provide a continuous, clearly marked walkway** to enable safe and direct pedestrian movement from parking areas to main entrances of buildings. Use distinctive pavement and/or markings to indicate pedestrian crossings.



Figure 6-4: The illustration above demonstrates appropriate design measures for surface parking areas.

- k. Provide pedestrian-scaled lighting along pathways to enhance visibility and security. Adjust the height and intensity of light to be sensitive to adjacent land uses. Incorporate additional pedestrian amenities such as benches and trash receptacles.
- I. Provide preferential parking for bicycles, energy efficient vehicles and car-share services. Ensure the provision of secure sheltered bicycle storage which is easily accessible in well lit, highly visible locations on or near the street front to encourage use.
- m. Consider permeable paving to promote drainage, especially in areas only used during peak parking times.



Figure 6-5: Decorative stone is used as a permeable surface treatment. Trees are used to shade vehicles and pedestrians, and to break up the continuity of the surface parking area.

## List of Figures

The photos and figures shown in the document are either from the original report entitled Kingston Residential Intensification/New Community Design Guidelines that were prepared by Brook McIlroy Planning and Urban Design/Pace Architects, or they have been provided by City of Kingston staff. The exceptions to this are those figures listed below:

- a) Figure 3-3, top right: sourced on-line from Township of Woolwich, Ontario; accessed July 8, 2015.
- b) Figure 3-4, top left (Scarborough, Ontario): sourced on-line from Water Canada; accessed July 7, 2015.
- c) Figure 3-7, bottom left: sourced on-line from Amazon S3; accessed July 7, 2015.
- d) Figure 5-1, third row, left: sourced on-line from National Post; accessed July 8, 2015.
- e) Figure 5-1, third row, middle (Kingston, Ontario): sourced on-line from Limestone District School Board; accessed July 8, 2015.
- f) Figure 5-1, third row, right (Princess Street Promenade, Kingston): sourced on-line from Kingston This Week; accessed July 8, 2015.
- g) Figure 5-1, fourth row, left (Markham, Ontario): sourced on-line from Markham Jazz Festival; accessed July 8, 2015.
- h) Figure 5-3, right (Fairfax, California): sourced on-line from Edmonton Bicycle Commuters Society; accessed July 8, 2015.
- i) Figure 5-17, top right: sourced on-line from Oakville, Ontario; accessed July 8, 2015.
- Figure 5-17, bottom left: sourced on-line from Bloomington, Indiana; accessed July 8, 2015.
- k) Figure 5-17, bottom right: sourced on-line from Flickr; accessed July 8, 2015.
- Figure 5-21, right: sourced on-line from MacDowell Restorations; accessed July 8, 2015.

## Appendix Checklist: Design Guidelines for Communities

The following checklist is a condensed version of the guidelines for ease of reference. For the full guideline, please refer to the appropriate section in the document. Use the checklist to identify if the proposed project meets the following criteria:

### Section 3: The Natural Environment, Parks and Open Space

3.1	Environmentally Sensitive Areas and Natural Hazards	Yes	No	Not Applicable
a.	Identify and preserve environmentally sensitive areas			
b.	Maintain, restore, or where possible, improve the health and quality of environmentally sensitive areas, as well as connections between them			
C.	Design new communities with strong visual and physical links to open spaces and natural areas			
d.	Avoid floodplains and steep slopes and locate development safely away from natural hazards			
e.	Connect communities to adjacent natural areas, where appropriate			
f.	Explore opportunities to develop appropriately designed higher density buildings near natural areas			
3.2	2 Stormwater Management	Yes	No	Not Applicable
a.	Maintain natural drainage networks and preserve environmentally sensitive areas			
b.	Integrate stormwater facilities as community features			
C.	Establish strong public exposure for stormwater facilities			

3.3	B Open Space	Yes	No	Not Applicable
a.	Create a linked network of open spaces			
b.	Distribute green space throughout the neighbourhood			
C.	Incorporate existing environmentally sensitive areas into neighbourhoods, where appropriate			
d.	Provide buffers to ensure environmentally sensitive areas are not damaged by development			
e.	Provide significant open frontage on public roads for all parks and open space			
f.	Provide shade in resting areas, gathering spots and recreational areas			
3.4	Parks Parks	Yes	No	Not Applicable
a.	Locate parkland at the earliest stages of community design			
b.	Configure parkland to support the diverse amenity needs of the community			
c.	Design parks to be sized according to a park hierarchy			
d.	Preserve and integrate, where appropriate, natural features such as woodlands and watercourses adjacent to parks			
e.	Locate parks along major streets			
f.	Locate parks adjacent to school sites			
g.	Design parks to provide a social focus			
h.	Connect a network of parks through communities			
i.	Link major park amenities using highly visible connections			
j.	Buffer disruptive parts of active recreation parks			
k.	Locate parks so they can be open to a minimum of two sides of the public street			
3.5	Multi-use Pathways	Yes	No	Not Applicable
a.	Provide a well-connected pathway network			

3.5	Multi-use Pathways (Continued)	Yes	No	Not Applicable
b.	Connect new recreational pathways to existing trail networks, streets, parks and open spaces			
C.	Link paths to destinations			
d.	Design recreation pathways to reflect the function and nature of the type of open space it occupies			
e.	Access points for pathways should accommodate a variety of users			
f.	Design multi-use pathways to distinguish between walking and cycling			
g.	Include adequate pathway amenities			
h.	Provide opportunities for shade along pathways			
Se	ection 4: Community Design			
<b>4.</b> 1	Community Structure	Yes	No	Not Applicable
a.	Create communities that are distinct and identifiable			
	Create communities that are distinct and identifiable  Incorporate sustainable characteristics into the community			
b.				
b. c.	Incorporate sustainable characteristics into the community			
b. c. d.	Incorporate sustainable characteristics into the community  Create a neighbourhood that is walkable from centre to edge			
b. c. d.	Incorporate sustainable characteristics into the community  Create a neighbourhood that is walkable from centre to edge  Create identifiable neighbourhood centres and corridors  Locate higher density development close to neighbourhood			
<ul><li>b.</li><li>c.</li><li>d.</li><li>e.</li></ul>	Incorporate sustainable characteristics into the community  Create a neighbourhood that is walkable from centre to edge  Create identifiable neighbourhood centres and corridors  Locate higher density development close to neighbourhood centres and corridors			
b. c. d. e. f.	Incorporate sustainable characteristics into the community  Create a neighbourhood that is walkable from centre to edge  Create identifiable neighbourhood centres and corridors  Locate higher density development close to neighbourhood centres and corridors  Provide a defined edge of the community  Use single-loaded streets to face the perimeter of parks and			

4.2	Block and Street Network	Yes	No	Not Applicable
a.	Create well-connected blocks and streets			
b.	Connect streets in new development to adjacent existing communities			
C.	Base streets on a grid or modified grid pattern			
d.	Use cul-de-sacs only where the topography or small size of a site constrains grid-based block development			
e.	Provide pedestrian connections at the end of streets or cul-de-sacs			
f.	Assign adequate space for the dedication of future roadway and pathway connections			
g.	Maximize opportunities for passive solar gain			
h.	Organize new transit routes around a network of through streets			
i.	Provide variation in block sizes			
j.	Do not use long block lengths			
k.	Provide a through-block pedestrian walkway			
l.	Consider incorporating rear lanes to eliminate the need for street facing garages			
m.	Orient buildings to face the road			
n.	Minimize pavement widths in the road right-of-way			
4.3	Lot Size and Variety	Yes	No	Not Applicable
a.	Provide a variety of lot sizes			
b.	Make lot shapes simple and rectilinear so as not to limit design and siting options			
C.	Ensure corner lots have adequate width			
d.	Increase residential density for lots adjacent to appropriate locations			

4.3	B Lot Size and Variety (Continued)	Yes	No	Not Applicable
e.	Establish buildings with a compact built form			
f.	Provide a diversity of housing options			
g.	Provide a variety of housing types on each street or block			
h.	Locate higher density buildings at corners			
4.4	Transit-Supportive Design	Yes	No	Not Applicable
a.	Treat transit as a central function of new communities			
b.	Place compact, higher density development close to transit facilities			
C.	Locate transit facilities where they are convenient to use			
d.	Ensure neighbourhood transit stops are located at a short walking distance			
e.	Provide a mix of land uses and higher residential densities at key locations			
f.	Discourage auto-dependent uses at the community centre			
g.	Provide accessible transit stops and amenities			
h.	Link cycle and pedestrian paths to transit facilities			
4.5	Community Facilities and Non-Residential Uses	Yes	No	Not Applicable
a.	Incorporate community facilities as focal points			
b.	Site compatible community buildings nearby or in the same facility			
C.	Design community facilities using the highest standards in environmental sustainability			
d.	Create opportunities for neighbourhood commercial and mixed use buildings			
e.	Place buildings in neighbourhood centres and on main streets near the front lot line			

4.5	Community Facilities and Non-Residential Uses (Continued)	Yes	No	Not Applicable
f.	Locate transit stops immediately adjacent to civic and commercial facilities			
g.	Encourage community gardens			
h.	Provide appropriate pedestrian-oriented lighting and clear views			
Se	ection 5: Streets			
<b>5.</b> 1	General Form	Yes	No	Not Applicable
a.	Create strong visual and physical links			
b.	Provide a streetscape design that best meets a high standard of functional and aesthetic considerations			
C.	Accommodate active transportation			
d.	Select the narrowest reasonable street width			
e.	Give primary consideration to the City's requirements for maintenance and snow clearing			
f.	Locate above-grade utilities out of sight			
5.2	2 Collector Roads	Yes	No	Not Applicable
a.	Design collector roads to reflect their role as community connectors and pedestrian destinations			
b.	Permit on-street parking on both sides of collector roads			
c.	Place sidewalks on both sides of the street, where possible			
d.	Provide bicycle infrastructure on both sides of the street			
e.	Use narrow travel lane widths			
f.	Use barrier curbs for all Collector Roads			
a.	Reduce the number of curb cuts along the street		П	

5.3	Local Roads	Yes	No	Not Applicable
a.	Design Local Roads to reflect their role as community streets and social gathering places			
b.	Design Local Roads with a narrow pavement width			
C.	Place sidewalks on both sides of the street in higher density areas and near community facilities			
d.	Use mountable curbs for Local Roads			
e.	Consider bicycle movement a normal part of Local Road traffic movement			
f.	Use pavement widths that are cycling-friendly			
5.4	Lanes	Yes	No	Not Applicable
a.	Design lanes to function as public streets			
b.	Consider using lanes for access			
C.	Orient the main building face and ground-level access to the street			
d.	Consider attaching rear lane single car garages			
e.	Identify snow storage locations			
f.	Incorporate permeable materials			
g.	Provide additional lane access points in a central location			
h.	Apply a small minimum setback between the garage and the edge of the rear lane			
5.5	5 Driveways	Yes	No	Not Applicable
a.	Minimize curb cuts along the street			
b.	Design driveway widths and driveway curb cuts to be no wider than the width of the garage			
C.	Provide driveway access for corner lots from the minor street			
d.	Consider using permeable surfaces for driveways			

5.6	Boulevards and Sidewalks	Yes	No	Not Applicable
a.	Create boulevards that combine safe, unobstructed pedestrian travel routes with places to stop and socialize			
b.	Design boulevards to reflect their adjacent land use			
C.	Locate the street furniture and landscaping between the sidewalk and vehicle traffic, where possible			
d.	Create sidewalks that are dedicated to the movement of pedestrians			
e.	Provide a transition zone located between the sidewalk and the building or property line			
f.	Construct continuous sidewalks of textured concrete			
g.	Consider limited use of feature paving bands			
h.	Plant street trees			
i.	Provide continuous sidewalks on both sides of streets, where possible			
j.	Separate sidewalks from the street edge by using landscaped strips			
k.	Expand sidewalk widths where pedestrian activity is concentrated			
l.	Provide adequate lighting			
m.	Provide seating in shaded areas for social interaction, casual surveillance, and to support accessibility			
5.7	Traffic Calming	Yes	No	Not Applicable
a.	Streets in new communities should be designed so that traffic calming elements are built into the design of the roads			
b.	Use the narrowest reasonable street width			
c.	Install curb extensions at intersections			
d.	Incorporate treed bump-outs in combination with on-street parking			

5.7	7 Traffic Calming (Continued)	Yes	No	Not Applicable
e.	Create minor variation in road alignment			
f.	Use shortened block lengths			
g.	Consider vertical traffic calming only after other elements have produced no effect			
5.8	3 Crosswalks	Yes	No	Not Applicable
a.	Ensure crosswalks are continuous and connected to adjacent sidewalks			
b.	Clearly designate crosswalks for safety			
C.	Consider additional mid-block pedestrian signals and courtesy crossings			
d.	Time traffic signals so pedestrians have adequate time to clear the crossing			
5.9	Street Trees	Yes	No	Not Applicable
a.	Plant street trees at regular intervals			
b.	Locate street trees within the street furniture and landscape zone			
c.	Provide adequate soil volume for trees			
d.	Preserve existing street trees wherever possible			
e.	Use trees to create canopy and shade			
f.	Consider the type and location of trees to avoid interference issues			
g.	Incorporate a variety of native tree species			
<b>5.</b> 1	0 Street Furniture	Yes	No	Not Applicable
a.	Incorporate consistent, carefully located street furniture			
b.	Develop street furnishings within an overall concept			
c.	Avoid obstructing pedestrian or vehicular circulation			

5.1	11 Transit Amenities	Yes	No	Not Applicable
a.	Include transit stops with a shelter for weather protection and seating			
b.	Add basic amenities to transit shelters			
c.	Connect sidewalks directly to transit shelters			
d.	Design transit stops for barrier-free access			
e.	Link cycle and pedestrian paths to transit facilities			
<b>5.</b> 1	12 Lighting and Wayfinding Signage	Yes	No	Not Applicable
a.	Use well-placed lights and signage			
b.	Consider sustainability and the impacts of light pollution when choosing and locating lighting			
C.	Provide additional downcast pedestrian-scale lighting			
d.	Minimize outdoor light pollution			
e.	Use clear, legible signs			
f.	Place signs and building or property numbers in readily visible locations			
<b>5.</b> 1	13 Utilities	Yes	No	Not Applicable
a.	Enhance the streetscape by hiding and combining utilities			
b.	Bury utilities below grade in urban residential communities			
c.	Group above-grade utilities in single locations			
d.	Incorporate utilities into multi-unit building design			
e.	Explore new and innovative solutions for integrated utility services			
Se	ection 6: Parking			
6.1	1 On-Street Parking	Yes	No	Not Applicable
a.	Provide on-street parking wherever possible			
b.	Integrate parallel on-street parking			

6.1	On-Street Parking (Continued)	Yes	No	Not Applicable
C.	Locate on-street parking within curb extensions			
d.	Landscape curb extensions with street trees			
6.2	Structured Parking	Yes	No	Not Applicable
a.	Integrate structured parking seamlessly into the surrounding community			
b.	Integrate an active at-grade use			
C.	Consider a vertical mix of parking and residential/office above			
d.	Locate vehicular access to parking structures at the rear and/or side of buildings			
e.	Locate pedestrian entrances for parking structures in highly visible locations			
f.	Screen parking within a structure from view			
6.3	S Surface Parking	Yes	No	Not Applicable
a.	Design parking areas to reduce their visibility			
b.	Plan for the long-term redevelopment of surface parking			
C.	Avoid constructing large areas of uninterrupted parking			
d.	Minimize the total amount of parking			
e.	Preserve sight lines to surface parking areas and primary building façade			
f.	Provide adequate buffers between parked vehicles and the sidewalk			
g.	Clearly define boundaries			
h.	Provide landscaping that is proportionate to the overall parking lot size			
i.	Locate pedestrian entry paths adjacent to entry drives			
j.	Provide a continuous, clearly marked walkway			
k.	Provide pedestrian-scaled lighting			

6.3 Surface Parking		Yes	No	Not Applicable
I. Provide preferential parking vehicles and car shares	g for bicycles, energy-efficient			
m. Consider permeable paving	g to promote drainage			