



# Urban Design Guidelines for Development along Arterial Mainstreets

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**City of Ottawa**  
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**Planning and Growth Management Department**

**Mainstreets** are defined in the Official Plan as "streets that offer some of the most significant opportunities in the City for intensification through more compact forms of development, a lively mix of uses and a pedestrian-friendly environment." Arterial Mainstreets, in contrast to Traditional Mainstreets, are identified as those Mainstreets developed after 1945 that generally "present an urban fabric of larger lots, larger buildings, varied setbacks, lower densities and a more automobile-oriented environment." These streets usually do not provide on-street parking. The predominant land use is often single purpose commercial, many with parking lots located between the building and the street.

### **Purpose and Application**

The purpose of these guidelines is to provide urban design guidance at the planning application stage in order to assess, promote and achieve appropriate development along Arterial Mainstreets. Specific site context and conditions will also be reviewed in conjunction with these guidelines.

These guidelines are to be applied throughout the City for all streets identified as an Arterial Mainstreet within the Official Plan. Where a Community Design Plan or relevant planning study exists, these guidelines will augment those documents. They will also be used to help inform the preparation of new Community Design Plans.

### **Objectives**

- To foster compatible development that will contribute to the recognized or planned character of the streets
- To promote a comfortable pedestrian environment and create attractive streetscapes
- To achieve high-quality built form and establish a strong street edge along Arterial Mainstreets
- To facilitate a gradual transition to more intensive forms of development on Arterial Mainstreets
- To accommodate a broad range of uses including retail, services, commercial, office, institutional and higher density residential
- To enhance connections that link development sites to public transit, roads and pedestrian walkways

### **Official Plan and By-Law Direction**

For Arterial Mainstreets, the Official Plan supports compatible development that respects the character of the street and adjacent areas so that a gradual transformation to a more compact, mixed-use, pedestrian-oriented pattern of development with building heights up to eight storeys, can be achieved. This transformation can occur through a combination of higher density employment and residential uses, mixed-use buildings and the redevelopment of parking lots (Official Plan Amendment No. 28, Section 3.6.3).

Annex 1 of the Official Plan identifies the protected rights-of-way sufficient to provide enough area for the streetscape elements and meet the needs of pedestrians and cyclists.

Annex 3 of the Official Plan contains a number of design considerations that provide suggestions for how to meet the Design Objectives and Principles in Section 2.5.1 of the Official Plan. All other policies of the Official Plan, applicable regulations, Private Approach By-law, Signs By-law and Zoning By-laws must be met.

### **Context and Challenges**

Development along Arterial Mainstreets is traditionally low in profile, set back from the street, and separated from other buildings by large areas of asphalt. This type of development has created large gaps in the urban fabric and has generally produced unpleasant walking environments and incomplete streetscapes. Arterial Mainstreets are prime locations that present significant opportunities to: intensify and enhance development in a manner that creates attractive pedestrian environments; contribute to vibrant new neighbourhoods; and create transit-friendly places. The challenge is to facilitate the evolution of these Arterial Mainstreets over time to a more balanced vehicular and pedestrian environment with the streetscape defined and supported by buildings and landscape.

### **Other Available Guidelines**

- Urban Design Guidelines for Large-Format Retail (2006)
- Urban Design Guidelines for Development along Traditional Mainstreets (2006)
- Urban Design Guidelines for Drive-Through Facilities (2006)
- Urban Design Guidelines for Gas Stations (2006)
- Infill Housing Design Guidelines - Low-Medium Density (2005)
- Urban Design Guidelines for Outdoor Patios (2006)
- Regional Road Corridor Design Guidelines (2000)

### **Urban Design Guidelines**

The urban design guidelines for Arterial Mainstreets are organized into the following seven sections:

1. Streetscape
2. Built Form
3. Pedestrians and Cyclists
4. Vehicles and Parking
5. Landscape and Environment
6. Signs
7. Servicing and Utilities

1 Streetscape

**Guideline 1:** Locate new buildings along the public street edge (Figure 1).

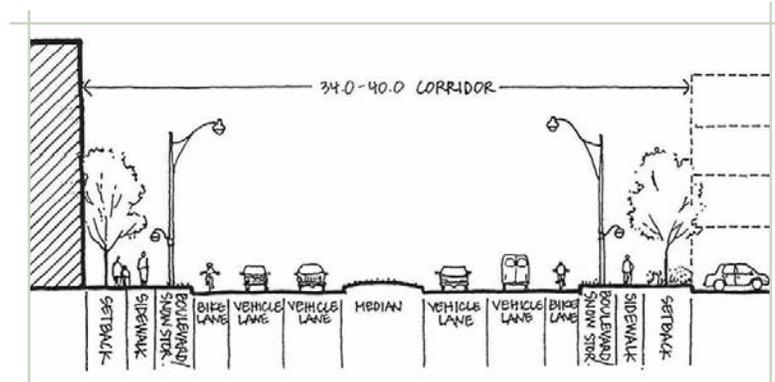


Figure 1: A typical Arterial Mainstreet section with buildings close to the street.

**Guideline 2:** Provide or restore a 2.0 metre wide unobstructed concrete sidewalk. Locate the sidewalk to match the approved streetscape design plans for the area. In addition, provide a 2.0 to 4.0 metre wide planted boulevard and a 1.0 to 3.0 metre landscape area in the right-of-way (Figure 2).

**Guideline 3:** Plant trees in the boulevard when it is 4.0 metres wide. If the boulevard is less than 4.0 metres wide, plant the trees in the landscape area to ensure healthy tree growth (Figure 2).

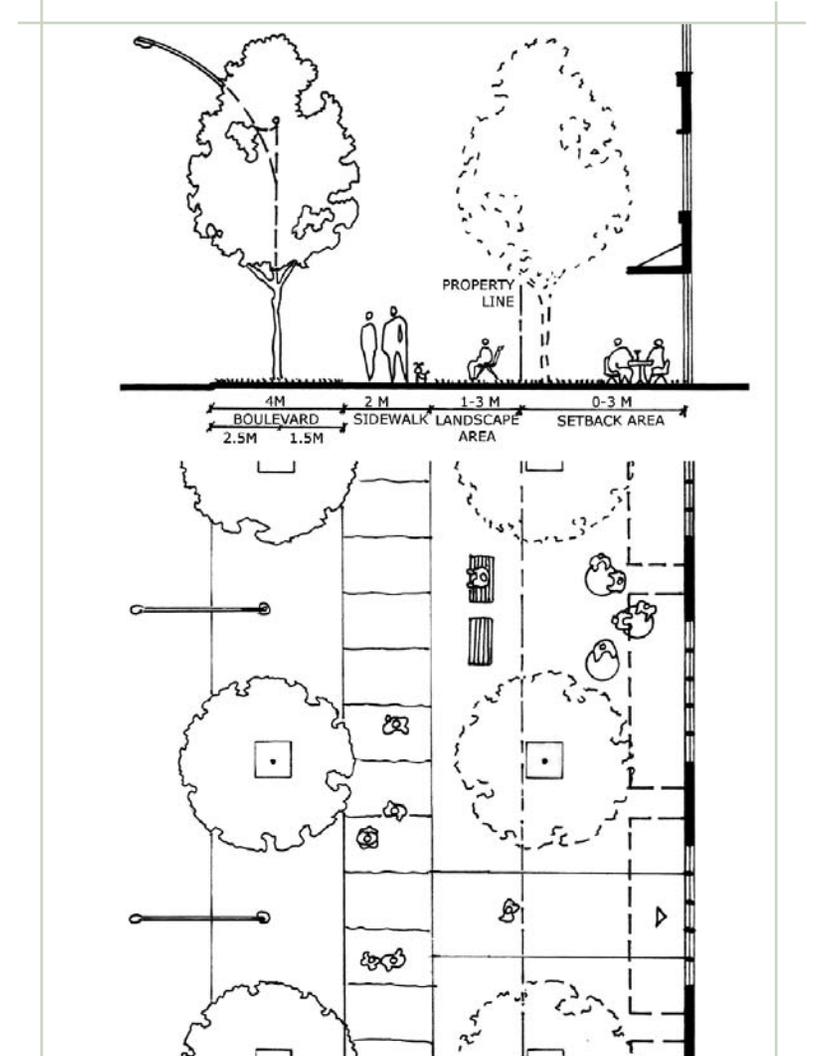


Figure 2: Arterial mainstreet streetscape: right-of-way section and plan.

- **Guideline 4:** Use buildings, landscaping and other streetscape elements to create continuous streetscapes (Figure 3).



Figure 3: A double row of trees enhances the streetscape along this arterial road.

- **Guideline 5:** Provide streetscape elements such as trees, decorative paving, benches and bicycle parking between the building and the curb. These elements should match approved streetscape design plans for the area, or where there is no streetscape design plan, they should match and extend the existing context.

- **Guideline 6:** Set new buildings 0 to 3.0 metres back from the front property line, and 0 to 3.0 metres back from the side property line for corner sites, in order to define the street edge and provide space for pedestrian activities and landscaping (Figure 4).



Figure 4: Increased setbacks provide room for wide sidewalks.

# 2

## Built Form

**Guideline 7:** Design new development to be compatible with the general physical character of adjacent neighbourhoods. Protect the positive elements of the existing fabric including significant buildings, existing trees, pedestrian routes, public facilities and pedestrian amenities (Figure 5).



Figure 5: New development that is compatible to the neighbourhood contributes to a vibrant streetscape.

**Guideline 8:** Provide significant architectural or landscape features at the corner on corner sites where there is no building, to emphasize the public streets and enhance the streetscape.

**Guideline 9:** Design street sections with a ratio of building height to road corridor width of between 1:6 (low), 1:3 (medium) and 1:2 (high) (Figure 6).

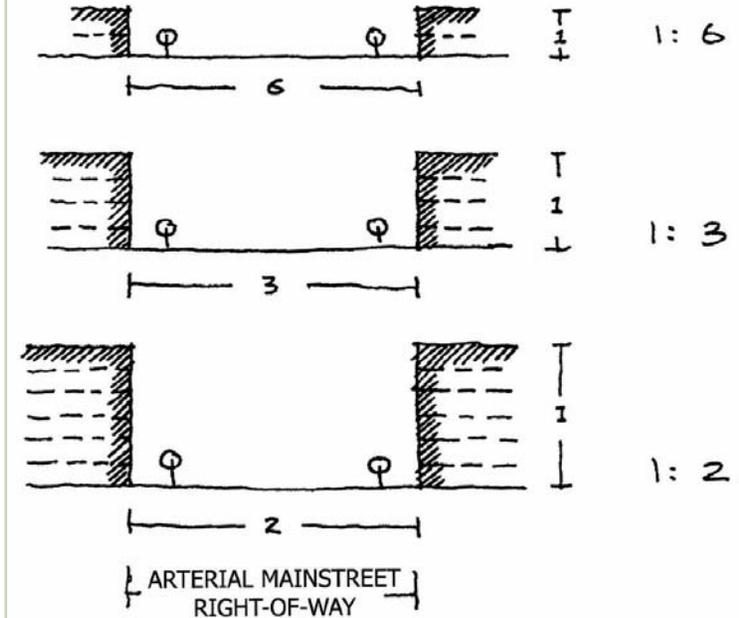


Figure 6: Street sections illustrate the ratios of right-of-way width to building height as the street intensifies.

**2**  
Built Form

- **Guideline 10:** Base new development on an internal circulation pattern that allows logical movement throughout the site that will accommodate, and not preclude, intensification over time. Design the internal circulation pattern with direct connections to the surrounding streets (Figure 7).

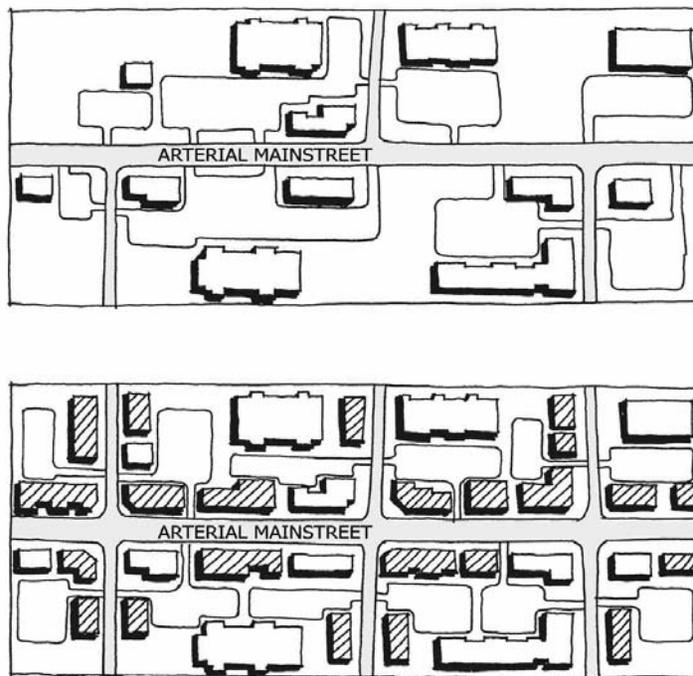


Figure 7: New streets are logical extensions of the mainstreet and support intensification.

- **Guideline 11:** Create intensified, mixed-use development, incorporating public amenities such as bus stops and transit shelters, at nodes and gateways by concentrating height and mass at these locations (Figure 8).



Figure 8: Gateways into a neighbourhood are prime locations for intensification.

- **Guideline 12:** Design the built form in relation to the adjacent properties to create coherent streetscapes.

# 2

## Built Form

**Guideline 13:** Ensure that buildings occupy the majority of the lot frontage. If the site is on a corner, situate the building at the lot line with the entrance at the corner. (Figures 9 and 10).



Figure 9: Corner entrances anchor the intersection.



Figure 10: A prominent and inviting corner entrance.

**Guideline 14:** Create a transition in the scale and density of the built form on the site when located next to lower density neighbourhoods to mitigate any potential impact (Figure 11).

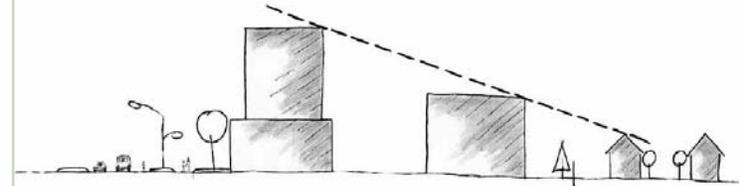


Figure 11: A transition in building scale protects the adjacent residential neighbourhood.

**Guideline 15:** Landscape the area in front of a building wall and use projections, recesses, arcades, awnings, colour and texture to reduce the visual size of any unglazed walls (Figure 12).



Figure 12: Wall projections and colour/material changes reduce the perception of building size.

# 2

## Built Form

- **Guideline 16:** Design richly detailed buildings that create visual interest, a sense of identity and a human scale along the public street (Figure 13).



Figure 13: Architectural detail enhances the public street.

- **Guideline 17:** Orient the front façade to face the public street and locate front doors to be visible, and directly accessible, from the public street.

- **Guideline 18:** Use clear windows and doors to make the pedestrian level façade of walls, facing the street, highly transparent. Locate active uses along the street at grade, such as restaurants, specialty in-store boutiques, food concessions, seating areas, offices and lobbies (Figure 14).



Figure 14: Generous windows with changing displays animate the public realm.

# 3 Pedestrians and Cyclists

- Guideline 19:** Connect pedestrian walkways between adjacent properties in order to facilitate circulation between sites (Figure 15).



Figure 15: Walkways enhance pedestrian circulation between sites.

- Guideline 20:** Provide direct, safe, continuous and clearly defined pedestrian access from public sidewalks to building entrances.
- Guideline 21:** Provide unobstructed pedestrian walkways that are a minimum of 2.0 metres wide along any façade with a customer entrance, along any façade adjacent to parking areas, and between the primary entrance and the public sidewalk. Provide additional width where doors swing out and car bumpers can potentially interfere with the walkway. Make all other on-site pedestrian walkways at least 1.5 metres wide.
- Guideline 22:** Provide weather protection at building entrances, close to transit stops and in places with pedestrian amenities.

- Guideline 23:** Provide an unobstructed 2.0 metre wide sidewalk in the public right-of-way, across private access driveways. Ensure little or no change in elevation (Figure 16).



Figure 16: Enhanced pedestrian crosswalk.

- Guideline 24:** Provide site furnishings such as benches, bike racks and shelters, at building entrances and amenity areas. Ensure that these locations do not conflict with pedestrian circulation (Figure 17).



Figure 17: Amenities adjacent to the entrance.

# 4

## Vehicles and Parking

- Guideline 25:** Share vehicular access to parking areas between adjacent properties in order to reduce the extent of interruption along the sidewalk and the streetscape. (Figure 18).

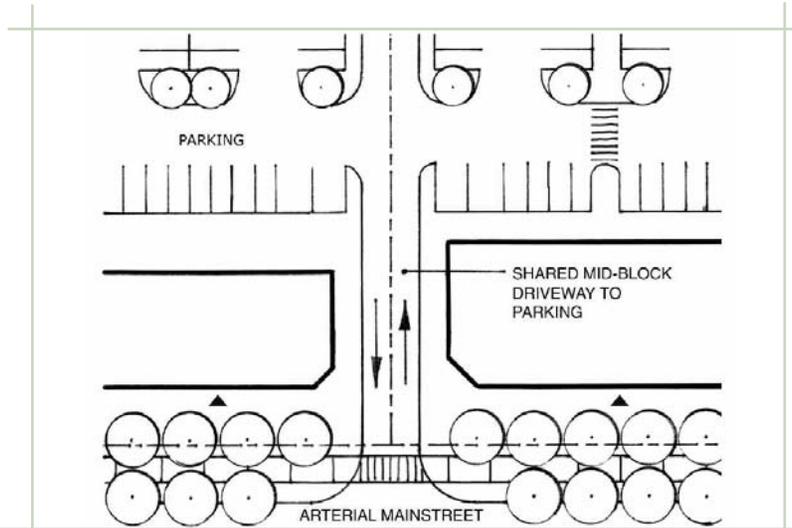


Figure 18: Shared driveways reduce the number of curb cuts and thus the potential for pedestrian/vehicular conflict.

- Guideline 26:** Link access drives and parking lots of adjacent properties in order to allow for the circulation of vehicles between sites.
- Guideline 27:** Locate surface parking spaces at the side or rear of buildings. Provide only the minimum number of parking spaces required by the Zoning By-law.
- Guideline 28:** Locate parking structures that serve multiple properties in the interior of the block as intensification occurs. Do not front the parking structure onto the mainstreet unless commercial facilities line the edges of the building and face the street.

- Guideline 29:** Orient car parking spaces to minimize the number of traffic aisles that pedestrians must cross (Figure 19).

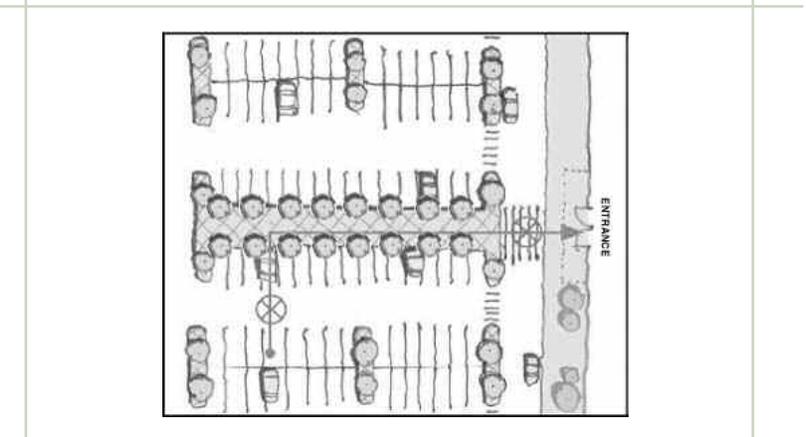


Figure 19: Parking aisles oriented toward building entrances minimize the number of conflict points.

- Guideline 30:** Provide a consistent width of landscape and pedestrian areas across the front of the site (Figure 20).

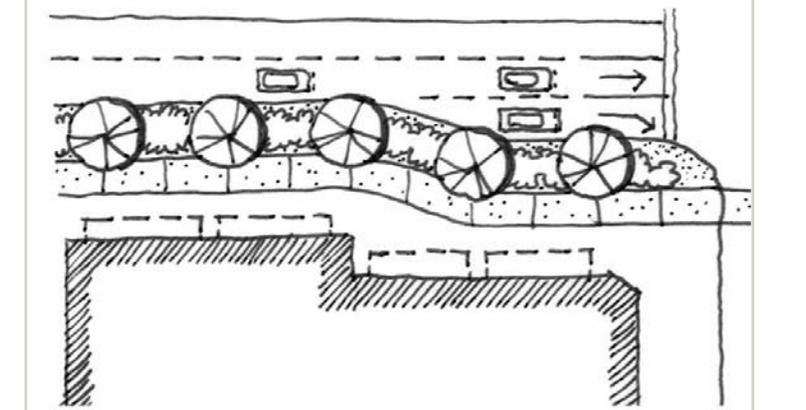


Figure 20: Turn lanes do not diminish the consistency of the sidewalk and landscape areas.

# 5

## Landscape and Environment

- **Guideline 31:** Use continuous landscaping to reinforce pedestrian walkways within parking areas. (Figure 21).



Figure 1: Landscaping provides a safe pedestrian route through the site.

- **Guideline 32:** Select trees, shrubs and other vegetation considering their tolerance to urban conditions, such as road salt or heat. Give preference to native species of the region of equal suitability.
- **Guideline 33:** Plant trees away from the curb next to private property when the boulevard is narrower than 4.0 metres (Refer Guideline 3).
- **Guideline 34:** Coordinate tree and street-light locations with above and below-grade utilities.
- **Guideline 35:** Provide a minimum 3.0 metre wide landscape area, which may include a solid wall or fence in addition to planting, at the edges of sites adjacent to residential or institutional properties.

- **Guideline 36:** Provide a minimum 3.0 metre wide landscape area along the edge of a site where parking areas, drive lanes or stacking lanes are adjacent to a public street. Use trees, shrubs and low walls to screen cars from view while allowing eye level visibility into the site (Figure 22).



Figure 22: Landscaping and low walls screen the parked cars while maintaining visibility to the area.

- **Guideline 37:** Plant trees, shrubs and ground cover on any unbuilt portions of the site that are not required to meet minimum parking requirements. This includes any areas reserved for future phases of development.
- **Guideline 38:** Use green building technologies such as green roofs, drip irrigation, and other Leadership in Energy and Environmental Design (LEED) approaches.
- **Guideline 39:** Protect and feature heritage, specimen and mature trees on site by minimizing grade changes and preserving permeable surfaces.

# 5

## Landscape and Environment

- Guideline 40:** Landscape areas between the building and the sidewalk with foundation planting, trees, street furniture, and walkways to the public sidewalk (Figures 23 and 24).



Figure 23: Landscaping between the building and the public sidewalk enhances the streetscape.



Figure 24: Planting and benches, clear of the pedestrian travel route, enhance the streetscape.

- Guideline 41:** Provide a minimum 2.5 metre wide landscape area along the site's side and rear yards in order to provide screening and enhance environmental benefits (Figure 25).

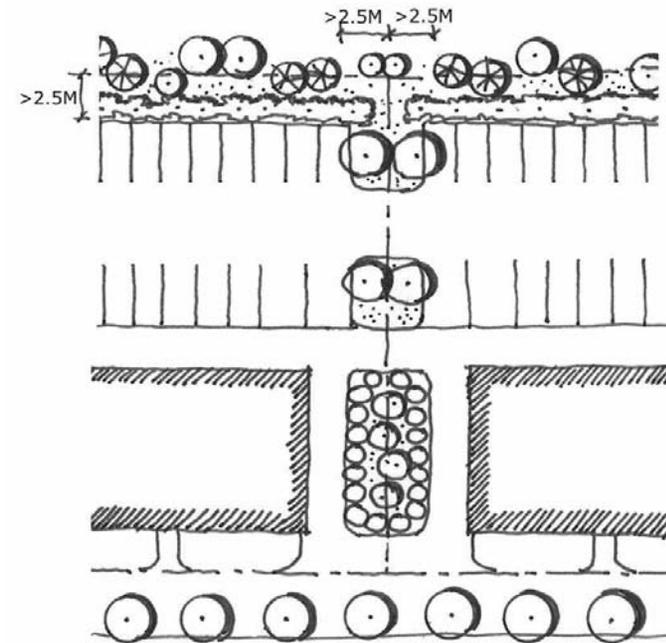


Figure 25: Side and rear yard landscaping requirements provide amenities and greenery to the site.

- Guideline 42:** Plant street trees between 7.0 and 10.0 metres apart along public streets and internal pedestrian walkways. Plant trees in a 4.0 metre boulevard, a minimum 2.5 metres away from the curb of the public street and 1.5 metres from the public sidewalk. Plant in permeable surfaces with a minimum of 10.0 square metres of soil area per tree (Refer Guideline 3/Figure 2).

# 6

## Signs

- **Guideline 43:** Design buildings to accommodate signs that respect building scale, architectural features, signage uniformity and established streetscape design objectives (Figure 26).



*Figure 26: Corporate signs fit with the design and scale of the building.*

- **Guideline 44:** Eliminate visual clutter.
- **Guideline 45:** Design sign illumination to be task oriented and avoid glare/light spillover toward adjacent land uses.
- **Guideline 46:** Locate and design ground-mounted and wall-mounted signs to complement the character and scale of the area and promote an active, pedestrian-friendly environment.
- **Guideline 47:** Allow for retailer identification where there are multiple buildings and uses on a site but avoid allowing individual corporate image, colour and signs to dominate both the site and public spaces.
- **Guideline 48:** Restrict temporary and portable signs. Prohibit billboards, revolving signs and roof signs on private property.

7

**Servicing and Utilities**

- **Guideline 49:** Share service and utility areas between different users, within a single building or between different buildings, to maximize space efficiencies.
- **Guideline 50:** Enclose all utility equipment within buildings or screen them from both the arterial mainstreet and private properties to the rear. These include utility boxes, garbage and recycling container storage, loading docks and ramps and air conditioner compressors.
- **Guideline 51:** Design lighting so that there is no glare or light spilling onto surrounding uses.
- **Guideline 52:** Provide lighting that is appropriate to the street character and mainstreet ground floor use with a focus on pedestrian areas.
- **Guideline 53:** Design secondary doors (such as emergency exit or service doors) to blend in with the building façade.

**Amenity:** something that contributes to an area's needs, whether social, environmental, or cultural.

**Articulation:** architectural detail that gives a building interest and added richness.

**Boulevard:** area between the curb and the sidewalk for: street trees, newspaper boxes, parking meters, light poles, bike rings etc. so that sidewalks are kept free and clear for pedestrians.

**Built form:** buildings and structures.

**Compatible / Compatibility:** when the density, form, bulk, height, setbacks, and/or materials of buildings are able to co-exist with their surroundings.

**Curb cut:** a break in the curb for car access from the street onto a property.

**Driveway:** a private way across land used for vehicular access from a public street - includes a private right-of-way.

**Glazing:** clear or lightly tinted glass windows.

**Facade:** the principal face of a building (also referred to as the front wall).

**Fascia:** a plain horizontal band along the facade, often where the building's sign is placed.

**Frontage Zone:** the area in the right-of-way between the building and the sidewalk can include planting, outdoor patios etc.

**Gateway:** a main point of entrance into a district or a neighbourhood and a good location for intensification.

**Hard landscape:** landscape features other than plant materials e.g. decorative pavers, planter boxes, walks, fences, retaining walls, etc.

**Impervious surface:** surface of land where water cannot infiltrate back into the ground (e.g. roofs, driveways, streets and parking lots).

**Intensification:** higher, bigger and more compact, mixed-use, pedestrian-oriented development.

**Lane:** a narrow street at the back of buildings, generally used for service and parking.

**Light pollution:** light created from excessive illumination, by unshielded or misaligned light fixtures, and by inefficient lamp sources, with health implications to humans and wildlife.

**Mews:** small pedestrian passageway to link parking to public sidewalks, parks to sidewalks etc.

**Nodes:** occur at gateways, intersections, as key locations to highlight, feature or intensify.

**Parking lot:** a lot or other place used for the temporary parking of four or more passenger vehicles.

**Pedestrian scale:** a size of building, space that a pedestrian perceives as not dominating or overpowering.

**Pedestrian travel route:** the unobstructed portion of the sidewalk  
Pedestrian walkway: sidewalk on private property.

**Permeable surface:** a surface formed of material that allows infiltration of water to the sub-base.

**Property line:** the legal boundary of a property.

**Public realm:** the streets, lanes, parks and open spaces that are free and available to anyone to use.

**Right-of-way:** a public or private area that allows for passage of people or goods, including, but not limited to, freeways, streets, bicycle paths, alleys, trails and pedestrian walkways.

**Scale:** the size of a building or an architectural feature in relation to its surroundings and to the size of a person.

**Screening:** vegetation, landforms, or structures that serve to reduce the impact of development on nearby properties.

**Setback:** the required distance from a road, property line, or another structure, within which no building can be located.

**Sidewalk:** unobstructed concrete or paved area for pedestrian travel in the public right-of-way.

**Soft landscape:** planting such as trees, shrub, vines, perennials and annuals.

**Stacking lane:** an on-site queuing lane for motorized vehicles, which is separated from other vehicular traffic and pedestrian circulation by barriers, markings or signs.

**Streetscape:** the overall character and appearance of a street formed by buildings and landscape features that frame the public street. Includes building façades, street trees and plants, lighting, street furniture, paving, etc.

**Street frontage:** the front of the property facing the street.

**Street Section:** a street cross-section, which includes the horizontal line of the street plus the vertical edges of the buildings, on either side, that face it.

**Streetwall:** street edge, along which a line of buildings can occur and defines the limits of the right-of-way.

**Urban design:** the analysis and design of the city's physical form.

**Urban form:** the pattern of development in an urban area.

## Figure Credits

Figure 1: Regional Road Corridor Design Guidelines.  
Region of Ottawa-Carleton

Figure 3, 15, 17:  
Ottawa, Ontario. City of Ottawa

Figure 4: Toronto, Ontario.

Figure 5, 16: Vancouver, B.C.

Figure 8: From the St. Joseph Boulevard Corridor Study,  
March 2003: The Planning Partnership, Sterling  
Finlayson Architects, D.J. Halpenny & Associates,  
Royal LePage Advisors

Figure 9: California, USA. Bousfields Inc.

Figure 10: Illinois, USA. Bousfields Inc.

Figure 12: USA. Bousfields Inc.

Figure 13: Mississauga, Ontario

Figure 14: Toronto, Ontario. City of Ottawa

Figures 21, 22, 24, 25, 26:  
Ottawa, Ontario. City of Ottawa

