



6

# TRANSPORTATION





## CHAPTER 6 TRANSPORTATION

The City's transportation system is designed to facilitate the safe and convenient movement of people and goods between land uses within the City and to external destinations. Achieving a healthy and livable City and a transportation system that is sustainable into the future will require placing increased emphasis on moving people – this means managing our travel in order to reduce reliance on the automobile in favour of transit and more active forms of movement such as walking and cycling.

Managing travel to reduce automobile reliance can occur through a range of measures that can be incorporated throughout all stages of planning, site design and use of lands. This chapter of the Official Plan outlines objectives and policies which define how the City will plan to make the most efficient use of new and existing networks that support the transportation system. Key areas of focus include:

- Ensuring compact, *mixed-use* land use patterns, providing people with the opportunity to live close to where they are working, learning, shopping and playing;
- Planning for a comprehensive, multi-modal, well-connected transportation system that offers safe and convenient alternatives to automobile travel;
- Planning for safe and convenient *pedestrian* and cyclist movement, giving priority to these travel modes in the planning, design and operation of the City's networks (*road* and trails/open space) as well as in the design of sites and buildings;
- Increasing the proportion of trips made by transit travel by planning for a more compact, *mixed-use* City form that supports a comprehensive and efficient transit system, including *rapid transit*;
- Planning for the provision of appropriate bicycle and vehicular parking, balancing the desire for convenience with the desire to reduce automobile reliance.

This chapter describes the objectives and policies for the development and maintenance of the various types of movement within Waterloo. These policies recognize that the transportation system is supported and facilitated by interconnected networks throughout the City, including the road network, and the trails/open space network.

### 6.1 OBJECTIVES

#### 6.1.1 Transportation System

- (1) Plan for a transportation system that:
  - (a) Provides for the safe and convenient movement of goods and people with



- various degrees of mobility within and to/from Waterloo;
- (b) Increases the opportunities for, and removing the disincentives to, walking, cycling and transit;
- (c) Is multi-modal, meaning that users have choice in the type of transportation within the City;
- (d) Provides connectivity between various modes of transportation, enabling users to choose multiple modes for a single trip;
- (e) Includes a local neighbourhood transportation system that is safely and adequately connected to the higher-order network throughout the City;
- (f) Provides for Waterloo to be accessible and well connected to external destinations in order to support the commuting labour force;
- (g) Enables reduced dependency on non-renewable energy;
- (h) Supports and encourages healthy lifestyles and environmental sustainability;
- (i) Facilitate economic activity; and,
- (j) Facilitates the achievement of emergency response targets.

### 6.1.2 Integrating Transportation and Land Use

The City will support land use and transportation system choices that recognize and support the strong interdependence between transportation and land use where:

- (1) A compact, *mixed-use* urban form allows people to live closer to where they work, learn, shop, and play, thereby providing opportunities to decrease automobile use in favour of alternative modes of travel;
- (2) An efficient, safe, multi-modal transportation system supports a livable and healthy, compact, *mixed-use* urban form, and in particular, supports *intensification* in Nodes and Corridors; and,
- (3) When reviewing *development* applications, the City will assess the transportation demands, impacts and opportunities associated with the development.

### 6.1.3 Pedestrian and Bicycle Travel

The City supports and encourages *pedestrian* and bicycle travel as preferred forms of travel. These travel modes will be supported through the planning, design and maintenance of the parks, trails and open space network, the *road* network as well as site, building and streetscape design.



### 6.1.4 Transit Travel

The City supports the wide use of public transit as a preferred form of travel. *Rapid transit* will assist in facilitating the City’s growth through *intensification* and can be supported as a means of reducing traffic congestion, parking demands, air pollution and energy consumption while providing opportunities to improve community livability and quality of life. To that end, the City will plan for:

- (1) Neighbourhoods, sites and buildings that are designed to facilitate transit and enable it to be well connected with other modes of travel, making it a desirable travel option;
- (2) Compact urban form that supports transit usage;
- (3) The provision and maintenance of *infrastructure* such as the sidewalk and bicycle system, to support the transit system, in conjunction with the Region of Waterloo.

### 6.1.5 Parking

- (1) To plan for and/or create an appropriate amount of bicycle and vehicular parking to accommodate the intended use.
- (2) To plan for bicycle and vehicular parking areas that are attractive and well designed and reflect consideration of safe, secure and convenient access to all segments of the community.
- (3) To ensure that parking will be efficient and environmentally sensitive in terms of design, location, and surface treatment.
- (4) To support transit and measures relating to *transportation demand management* through restrictions on parking supply, where appropriate.
- (5) To minimize large areas of surface parking associated with higher density development in Nodes, Corridors and *Major Transit Station Areas*, where possible, and encourage the use of parking structures and/or underground parking.

***OPA No. 14, approved January 11, 2018***

## 6.2 SUPPORTING DOCUMENTS AND IMPLEMENTATION

- (1) Council may approve, and update as appropriate, additional documents to provide further direction with regard to these Official Plan policies. Such documents may include, but not necessarily be limited to:
  - (a) City of Waterloo Transportation Master Plan, including a component to address *pedestrian* and bicycle movement;
  - (b) Traffic Calming Policy;
  - (c) Sidewalk Policy;
  - (d) Multi-Use Pathways Policy;
  - (e) Intersection Control Policy;
  - (f) Transportation Demand Management Policy;
  - (g) Complete Streets Policy;
  - (h) Green Streets and Infrastructure Policy;
  - (i) Parking Strategies; and,
  - (j) Pedestrian Charter.

## 6.3 INTEGRATING TRANSPORTATION AND LAND USE

Recognizing the strong interdependence between transportation and land use, the City's transportation system will be designed to complement and facilitate the achievement of planned land use patterns. The relationship between individual land use designations and the transportation system will be further defined in Chapter 10 "Land Use Policies".

- (1) The transportation system will support the retention of planned low density land use patterns and ensure that excessive vehicular traffic impacts are not placed on *local roads*.
- (2) The transportation network will support the development of designated Nodes, Corridors and *Major Transit Station Areas* as compact *mixed-use* areas that serve as focal points for *intensification* and facilitate reduced reliance on automobile travel.
  - (a) Such areas will be planned to provide opportunities for people to live closer to where they work, shop, learn and play, thereby decreasing automobile use and increasing opportunities and support for *pedestrian* and bicycle travel and an efficient and effective transit system.
  - (b) Development in such areas will be subject to the urban design policies included in section 3.11 of this Plan, placing emphasis on the creation of *pedestrian*, bicycle and transit -friendly streetscapes and *infrastructure* and incorporating elements of *sustainable design*.

- (c) The City will plan for a high degree of connectivity to, within and between designated Nodes, Corridors and *Major Transit Station Areas* to facilitate safe and convenient movement by all travel modes.
- (d) Nodes, Corridors, and Major Transit Station will be located on or adjacent to Arterial or Collector Roads.

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## 6.4 TRANSPORTATION IMPACT STUDIES

- (1) A Transportation Impact Study to assess the transportation demands, impacts and opportunities of a proposed development may form part of a *development* application. Applications for *site plan* approval may require a Transportation Impact Study if requested by the Ministry of Transportation. While the scope of the Transportation Impact Study will vary depending on the nature of the *development* application, the purpose of the Study will generally be to introduce appropriate *transportation demand management* measures and identify and implement mitigation measures or transportation improvements to accommodate travel generated by the development. The Transportation Impact Study will be conducted in accordance with an approved Terms of Reference to be developed in consultation with City Staff, Regional staff or Ministry of Transportation staff, as appropriate, where the site is adjacent to a Regional *road* or within the Ministry of Transportation permit control area as defined in Section 38 (2) of the Public Transportation and Highway Improvement Act, and will:
  - (a) Identify the required transit, *pedestrian*, cycling, *road* and parking facilities (vehicular and bicycle) necessary to support the proposed *development*;
  - (b) Determine the method and means by which the subject lands and adjacent areas can be efficiently and effectively serviced by transit;
  - (c) Reference and apply any applicable City of Waterloo design guidelines and/or practices when developing recommended modifications to transportation *infrastructure*;
  - (d) Assess the impact of traffic generated by the development on the capacity of adjacent and nearby *roads*, accounting for the anticipated growth in background traffic, anticipated future development and planned transportation *infrastructure* modifications.
  
- (2) To implement the findings of a Transportation Impact Study, the City may, where provided for by the Planning Act, establish conditions of approval, or support the Region of Waterloo in the application of conditions of approval, that support safe and efficient *pedestrian* and cyclist movement as well as the Regional transit system, including:



- (a) The acquisition of easements and the dedication of land to the appropriate authority for sidewalks, bicycle or shared-use pathways, *rapid transit stations*, transit terminals, transit stops, public transit rights-of-way, *roads*, roundabouts, rideshare facilities and utilities;
  - (b) The provision of associated amenities such as transit shelters, pads, lighting and bicycle parking facilities at the expense of the owner/applicant; unless otherwise determined by the Region or City; and,
  - (c) Site, building and road designs that meet the needs of pedestrians, cyclists and transit users.
- (3) Applications for *site plan* involving property that abuts a Regional *road* and are likely to generate significant traffic, may require submission of a Transportation Assessment, Functional Design Study or similar study if requested by the Region at the time of a *site plan* application pre-consultation meeting. The scope of such studies will be jointly determined by the Region of Waterloo and City of Waterloo. Any such studies will be consistent with the authority granted under Section 41 of the Planning Act, with the intent of addressing potentially required site-related *road* and transit improvements, including but not limited to access design, *road* widening, traffic direction signs and public transit rights-of-way.

## 6.5 SUPPORTING TRANSIT AND ACTIVE FORMS OF TRAVEL

### 6.5.1 Active Transportation

- (1) This Plan supports *active transportation* as a low cost form of travel that promotes physical exercise and social interaction and results in a reduced impact on the environment.
- (2) *Active transportation* will be accommodated and encouraged within and across the City's networks, and in particular, the *road* network and the trails and open space network. To encourage safe and convenient movement within and between these networks, the planning, design, operation and maintenance of the City's *active transportation* routes and corridors shall be based on the following principles:
  - (a) The system shall be comprehensive, continuous, well-connected and provide linkages between major activity areas throughout the City;
  - (b) The system shall incorporate signage that is clearly visible to the public;
  - (c) The system shall minimize conflicts between motorized and non- motorized travel and between *pedestrians*, cyclists and other users; and,

- (d) The system shall address the comfort of the users, giving consideration to such matters as shading and seating along the routes.
- (3) Several connected and inter-related components of the City's networks are an important part of supporting *active transportation* to the extent that they connect neighbourhoods and Districts throughout the City as well as connecting the City to adjacent municipalities. These include:
- (a) City-wide multi-use routes and cycling routes;
  - (b) King Street corridor, identified as a Major Corridor within the City that will be planned to accommodate high density, transit supportive uses; and,
  - (c) Sidewalks, a localized component of the active transportation system.
- (4) The road network and the trails and open space network will be planned, designed, operated and maintained to support *pedestrian* and bicycle travel in all parts of the City as outlined in the policies in the Networks Chapter of this Plan. Key routes and corridors throughout the City that will support *active transportation* are illustrated on **Schedule 'F' – Active Transportation**. It is the intent of this Plan that Schedule 'F' provides an overview of major active transportation routes and corridors and that:
- (a) The Transportation Master Plan, as a key implementation document, will define more detailed linkages as well as an implementation strategy for the design, operation and maintenance of *active transportation* routes;
  - (b) Where privately owned lands are shown on **Schedule 'F' – Active Transportation**, this Plan does not imply that the lands are accessible to the general public or that the lands will necessarily be acquired by the City.
  - (c) The *active transportation* system shown on **Schedule 'F' – Active Transportation** consists of existing and planned routes that are designed to connect neighbourhoods and planning districts within the City, and to connect the City with adjacent municipalities.
  - (d) Planning for *active transportation* includes the development of *complete streets*. **Schedule 'F' – Active Transportation** is not intended to illustrate the comprehensiveness of the *complete street* policy in Waterloo.
- (5) The City will plan for the development of buildings, sites and streetscapes that are safe, attractive, well maintained and provide for the convenient and comfortable movement of *pedestrians* and cyclists. Consistent with the Urban Design policies of this Plan as further implemented by the City of Waterloo Urban Design Manual, such measures may include consideration of:
- (a) Site Organization and Design – Includes elements such as building placement, parking lot size and configuration, access to/from/within the site,



- passenger pick-up and drop-off areas, *road/bikeway/sidewalk* design and materials, that support safe and convenient movement of cyclists and *pedestrians* with varying degrees of mobility;
- (b) Site Amenities – Includes the provision and appropriate siting (i.e. relative to buildings and streets) of elements such as landscaping, street furniture, transit stops and shelters, short and long term bicycle parking and storage facilities, security features and lighting, in a manner that supports safe and convenient movement of cyclists and *pedestrians* with varying degrees of mobility;
  - (c) Building Design and Orientation - Includes locating and designing buildings to provide for direct and safe *pedestrian* access to destinations such as building entrances, transit routes and amenity spaces.

## 6.5.2 Transit Travel

### Transit-Oriented Development

- (1) The City will plan for a transportation network and land use pattern that supports the Region of Waterloo in the provision of an efficient and effective public transit system. Efficient and safe transit movement shall be supported through the application of the following transit-oriented development principles when reviewing *development* applications (including *site plan* applications where enabled by the Planning Act), on or near sites that are served by existing or planned high frequency transit service, as shown on Map '5a' – Regional Transit Network of the Region of Waterloo Regional Official Plan:
  - (a) Plan for a *road* layout and *active transportation* network that encourages walking, cycling and the use of transit, and supports *mixed-use* development;
  - (b) Support a more compact urban form that locates the majority of transit-supportive uses within a reasonable walking distance of the *transit stop* or *Major Transit Station Area*;
  - (c) Provide an appropriate mix of land uses, including a range of food destinations that provide for a variety of services, amenities and employment, thereby fostering vibrant, transit-supportive neighbourhoods.
  - (d) Promote medium and higher density land uses as close as possible to transit stops to support higher frequency transit service and optimize transit rider convenience.
  - (e) Plan for environments that allow walking and cycling to be safe, comfortable, *barrier-free*, convenient and relatively direct forms of urban travel;
  - (f) Plan for public spaces that provide the opportunity for social interaction and community participation; and,

- (g) Provide access from various transportation modes to the transit facility, including consideration of *pedestrian* movement, bicycle parking, and where applicable, passenger transfer and commuter pick-up/drop-off areas.
- (2) For clarity, in addition to policy 6.5.2 (1) above, section 3.11.2 and/or section 3.8 of this Plan shall apply, as applicable, when reviewing *development* applications on or near sites that are served by existing or planned high frequency transit service.

### Integrating Transit with Other Travel Modes

- (3) The City supports measures to integrate transit with other travel modes, ensuring connectivity and convenience for users incorporating multiple travel modes into a single trip.
- (4) The City will encourage integration of cycling, automobile and transit modes by providing or requiring adequate automobile and bicycle parking facilities at major transit stops and in conjunction with development within *Major Transit Station Areas* and designated Nodes and Corridors, including and the Uptown Waterloo Urban Growth Centre.
- (5) *Roads*, sidewalks, trails and buildings shall be designed to provide direct walking access from the interior of blocks to transit locations.

### Supporting a Comprehensive and Well-Designed Transit Network

- (6) The City supports and will collaborate with the Region on measures to provide adequate, convenient and well-designed transit throughout the City and to external destinations.
  - (a) The City supports integration of *rapid transit* with existing or planned high frequency transit service along east-west transportation corridors within Waterloo;
  - (b) The City supports the integration of the Regional transit system within Waterloo with existing or planned inter-regional systems such as GO Transit.
  - (c) The City encourages *rapid transit* to be designed at-grade with existing *roadways* and with no barriers except where required by an authority having jurisdiction;
  - (d) The City will cooperate with the Region of Waterloo in locating and designating any maintenance facilities associated with *rapid transit* to ensure that such facilities are compatible with the transportation network and other land uses and are appropriate given the planning goals in the area.

## 6.6 PARKING

### 6.6.1 Planning for Appropriate Parking

- (1) Safe and attractively designed vehicular parking areas or facilities shall be provided for all development to ensure the efficient functioning of the City's transportation system. Parking policies included in this section shall be considered in conjunction with:
  - (a) Section 3.6.6, Parking in Nodes and Corridors;
  - (b) Section 3.8.1, Parking in Major Transit Station Areas;
  - (c) Policy 3.7.2(13), related to parking within the Uptown Waterloo Urban Growth Centre; and
  - (d) Chapter 10 (Land Use Policies), which may include policies related to parking within various land use designations and which shall be implemented by the Zoning by-law.
  
- (2) The City shall periodically review parking usage, availability and parking standards for various land uses and adjust or establish standards which result in parking supplies that address development needs while encouraging the use of *pedestrian*, bicycle and transit travel as alternatives to the automobile, where feasible.
  
- (3) The City may consider parking lots as an interim use and as such, promote their re-use or future development potential.
  
- (4) The City will plan for the development of public and/or private parking facilities to meet parking needs while promoting the more efficient use of parking resources. In addition to establishing parking requirements through the Zoning By-Law, the City may use a range of mechanisms to require or facilitate the provision of such parking, including:
  - (a) Acquiring and developing lands to operate public parking facilities;
  - (b) Establishing appropriate on-street parking in residential plans of subdivision;
  - (c) Encouraging the development of structured or underground commercial parking facilities in the Uptown;
  - (d) Encouraging the provision of underground and structured parking as more land-efficient alternatives to surface parking;
  - (e) Pricing parking to cover some or all facility costs and to help fund *Transportation Demand Management* strategies; and,
  - (f) Otherwise facilitating or encouraging the development of public and/or private off-street parking facilities to accommodate any unsatisfied parking demand.

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- (5) To encourage walking, cycling and transit movement as preferred modes of travel, the City may consider defining and applying through the Zoning By-Law, parking standards that:
    - (a) Establish minimum and maximum vehicular parking requirements;
    - (b) Limit surface parking;
    - (c) Permitting shared parking, where appropriate, as an efficient use of available parking facilities;
    - (d) Require the provision of commuter/carpool parking spaces to be provided in locations that provide for convenient access to building entrances;
    - (e) Require the provision of bicycle parking facilities in locations that provide for convenient access to building entrances; and/or
    - (f) Apply reduced vehicular parking requirements for development, giving consideration to access to transit, potential for shared parking, potential for small and/or micro spaces and/or other considerations that the City may deem appropriate.
  
  - (6) The City may, at its discretion, eliminate or reduce on-site vehicular parking requirements for a property or properties through Amendments to the Zoning By-Law, cash-in-lieu of parking agreements or other legislative tools.
    - (a) Amendments to the Zoning By-Law and/or variances may be considered that would have the effect of eliminating or reducing on-site vehicular parking requirements for a property, where, in the opinion of the City, a reduction in on-site parking is appropriate for the permitted uses and location of the site and any of the following are applicable:
      - (i) An owner or occupant may be permitted to provide parking off-site, provided an agreement is entered into with the City to ensure the continued availability of such off-site parking, which is within an appropriate, convenient walking distance from the property for which parking is required;
      - (ii) Parking cannot physically be provided on-site (due to insufficient availability of suitable lands or site area);
      - (iii) The establishment of the required parking facilities would be inappropriate in the context of recognized *built heritage resources*;
      - (iv) The parking facilities would be incompatible with existing uses in the surrounding area; and/or,
      - (v) The exemption or reduction in parking will not impede primary traffic movement functions of adjacent arterial *roads*.
    - (b) It is recognized that in some instances, it may be appropriate to permit a reduction in the amount of parking required to be provided on-site on the basis that the required parking can be provided more efficiently in existing or

planned public parking facilities. In these instances, the City, at its discretion, may enter into a cash-in-lieu of parking agreement with a landowner to provide for an exemption or reduction in the parking requirement specified in the Zoning By-Law as set out in section 6.6.2.

### 6.6.2 Cash-in-lieu of Parking

- (1) As outlined in policy 6.6.1 (6) (b), the City may, at its discretion and on a site-specific basis, enter into an agreement with a landowner, to provide for an exemption from providing the required parking or a reduction in the parking requirement specified in the Zoning By-Law. Such an agreement shall provide for the owner to make one or more payments of money to the City as consideration for the granting of the exemption or reduction and shall set forth the basis upon which such payment is calculated.
- (2) Cash-in-lieu of parking is intended to:
  - (a) Encourage a higher-density, compact urban form;
  - (b) Facilitate development which clearly cannot provide all or a portion of required parking on-site; and,
  - (c) Encourage the creation of strategically located facilities that can be efficiently and cost-effectively shared by multiple uses as opposed to the creation of many small parking facilities.
- (3) The City shall enter into a cash-in-lieu of parking agreement based upon consideration of the following:
  - (a) The existing public parking supply (including adequate alternative off-street parking facilities) and/or additional public transportation, cycling and *pedestrian* facilities in the surrounding area can or will be able to accommodate the on-site parking supply deficiency at the time of development;
  - (b) The presence of site constraints prevents the provision of the required number of parking spaces;
  - (c) The use of the property is not considered over-development of the site;
  - (d) The establishment of the required parking facilities would be inappropriate in an area of recognized *cultural heritage resources*; and/or,
  - (e) The establishment of the required parking facilities would be incompatible with existing uses in the surrounding area, and provided the exemption or reduction in required parking facilities will not impede the primary traffic movement functions of adjacent arterial *roads*.

### 6.6.3 Parking Subject to Site Plan Control

- (1) Where parking areas are subject to *site plan* control as outlined in the Site Plan Control By-law, consideration shall be given to the urban design policies of this Plan as well as the provisions of the City of Waterloo Urban Design Manual. All parking areas or facilities shall be designed, constructed and maintained:
  - (a) For the safe and efficient movement of *pedestrians*, bicycles and motor vehicles on the site and at points of ingress and egress related to the site. *Pedestrian* and bicycle routes through large parking lots shall be marked and clearly separated from vehicular traffic, for safety and comfort purposes;
  - (b) To provide sufficient bicycle parking and/or storage to meet the needs of the intended use. Clear and convenient linkages shall be provided between bicycle parking areas and destinations including building entrances, streets, bicycle lanes and pathways;
  - (c) To result in an aesthetically acceptable parking area that blends into the general environment of the area. To reduce the visual impact of vehicular parking areas, such areas shall be located, positioned, and designed to minimize conflict with adjacent land uses and/or traffic movement and to maximize potential improvements to the public streetscape;
  - (d) To be accessible to persons with varying degrees of mobility;
  - (e) So that runoff from the parking area drains properly from the site (reference should be made to the City of Waterloo Urban Storm Drainage Policy) and so that snow may be adequately and safely stored on site and/or removed from the site; and
  - (f) To minimize negative impacts on the environment.

### 6.7 EMERGENCY RESPONSE

- (1) The City will plan for a transportation system that facilitates meeting emergency response times, giving consideration to:
  - (a) The planned *road* network;
  - (b) Supporting *rapid transit* design that facilitates meeting emergency response times;
  - (c) The potential impact of any traffic calming initiatives on emergency response times, as outlined in section 5.4.6 of this Plan.
  - (d) The City may approve and update as appropriate, a Fire Master Plan to further define how the policies of this Plan will be implemented.