



Guelph Parking Standards Review

Phase 2 Discussion Paper

Prepared for the City of Guelph
by IBI Group
September 11, 2019

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Executive Summary

The City of Guelph is undertaking a Comprehensive Zoning By-law Review. This Report is a Discussion Paper reviewing regulations related to parking, driveways, and garages in the City of Guelph's Zoning By-law. This Report builds upon work undertaken in Phase 1 of this study, which included a thorough review of existing Zoning By-law standards and relevant background reports, a multi-day off-street parking demand survey, and a detailed summary of best practices observed in comparable municipalities. This Report concludes by providing detailed recommendations which are intended to inform future updates to the City of Guelph's Zoning By-law.

In developing the recommendations included within this Report, consideration was given to the City's existing standards within the context of the applicable planning and policy frameworks as well as emerging trends in mobility. The City's standards were compared to those of comparable municipalities and parking demand observed during the off-street parking demand survey to assess the adequacy of current standards. These findings have informed the ultimate recommendations set out in this Report, and are summarized below.

Review of Existing By-Law and Background Reports

A review of the current Zoning By-law revealed a number of items which are not addressed by the current consolidation, such as:

- Lack of requirements for bicycle parking;
- Electric car charging stations;
- Inadequate barrier-free parking standards; and,
- Loading space dimensions.

The current Zoning By-law also does not consider maximum parking rates, instead relying only on minimum rates. It was also noted that the Zoning By-law currently does not implement emerging transportation demand management (TDM) tools or conform to current Provincial accessibility requirements.

The review of relevant background reports, selected through discussion with City of Guelph staff, revealed a number of policy recommendations corresponding to items not addressed in the existing Zoning By-law, such as:

- The adoption of flexible parking standards;
- Parking maximums;
- Shared parking accommodations; and,
- The implementation of transportation demand management measures.

This underscores the need for a comprehensive update to the City of Guelph Zoning By-law.

Off-Street Parking Demand Survey

The off-street parking demand review surveyed 20 properties in Guelph with various land uses composed of office, medical office, and multiple residential and commercial sites, in order to gain an understanding of the typical peak parking operations. The survey results will help inform recommended Zoning By-law minimum parking space requirements. The parking surveys were undertaken during typical peak parking periods for the respective land use, as determined by past project experience, the Institution of Transportation Engineers (ITE) Parking Generation Manual, and the Google Maps “Popular Times” feature.

When the parking demand results were analyzed, it was found that observed peak parking demand rates typically fell below the minimum rates outlined in the Zoning By-law, further supporting adoption of reduced parking rates or flexible parking standards identified in the background reports for select land uses.

Inter-Jurisdictional Best Practices Review

The inter-jurisdictional review included in this Report assesses how the comparable municipalities of Burlington, Kitchener, Oakville, St. Catharines, and Waterloo address parking needs in their respective Zoning By-laws. These municipalities were identified through discussion with City of Guelph staff and selected according to several criteria including population, status as an “outer-ring” Growth Plan municipality, and having a recently reviewed and updated Zoning By-law with specific focus on the parking standards.

Several differences between these comparison municipalities and Guelph were noted in requirements related to:

- Parking rates;
- Loading space requirements;
- Driveway widths;
- Parking space dimensions;
- Accessible parking;
- Electric vehicle parking; and,
- Stackable parking.

A number of emerging trends and best practices related to parking were also identified, including reduced parking minimums, maximum parking rates, and transportation demand management. The findings of this review were used as a platform for the development of recommendations for revisions to the parking regulations in the City of Guelph’s Zoning By-law.

Recommendations

Based on the findings of the review of the City of Guelph’s Zoning By-law and background reports, the off-street demand survey, ITE rates and the findings of the inter-jurisdictional best practices review, IBI Group has outlined a number of

recommendations related to parking regulation updates within the City of Guelph. Topics addressed by the recommendations include:

- Setting rates based on geographic context;
- Minimum parking rates and the consideration of maximum rates for residential, commercial, and other land uses;
- Loading space requirements;
- Driveway width requirements;
- Garage dimension and projection requirements;
- Driveway material requirements;
- Driveway and parking location requirements;
- Parking space dimension requirements;
- Drive aisle requirements;
- Barrier-free and accessible parking requirements;
- Electric vehicle parking requirements;
- Stackable / hydraulic lift parking; and,
- Transportation demand management measures.

A compiled list of recommended rates can be found in Appendix C. The recommendations included in this Report address gaps in or improve upon existing regulations in the City of Guelph. Emphasis was placed on updating the regulations to conform and / or comply with existing Provincial and municipal policy standards regarding parking, including the following:

- Accessibility for Ontarians with Disabilities Act (AODA);
- City of Guelph Official Plan;
- Urban Design Manual (Volumes 1 & 2);
- Built Form Standards for Townhouses and Mid-Rise Buildings;
- Commercial Built Form Standards;
- Active Transportation Network Study;
- Urban Design Concept Plans for Community Mixed Use Nodes and Select Intensification Corridors;
- Gordon Street Intensification Corridor Concept Plans;
- Affordable Housing Strategy;
- Corporate Administrative Plan;
- Development Engineering Manual;
- Cycling Master Plan;

- Guelph-Wellington Transportation Study;
- Commercial Policy Review: Stage 2 Preferred Policy Framework Report;
- Site Plan Procedures and Guidelines; and,
- Facility Accessibility Design Manual.

1 Introduction

This Discussion Paper (herein referred to as the “Report”) has been prepared by IBI Group to provide recommendations for updates to the parking regulations set out in the City of Guelph’s Zoning By-law. This Report summarizes background research and analysis conducted to date as part of our ongoing review of the City of Guelph’s existing parking, loading, and driveway standards, as part of the City’s ongoing review of their Zoning By-law.

Work on Phase 1 of the study began in February 2019, and included work on the following key tasks:

- A review of existing parking, loading, and driveway standards as set out in the City of Guelph’s Zoning By-law, and a review of the current land use planning policy framework as it relates to parking and loading;
- An Off-Street Parking Demand review, which included parking utilization surveys of 20 sites throughout the City; and,
- An inter-jurisdictional review of five comparable municipalities who have recently undergone reviews of their respective Zoning By-laws, updates to their municipal parking requirements / standards, and a preliminary review of best practices.

This Draft Report provides a summary of the work completed to date on each of these tasks along with resulting findings. City Staff were provided with the opportunity to comment on this Report and identify areas which required further examination in May and June 2019.

Work on Phase 2 of this study began in June 2019, following the final submission of the Phase 1 Report. Based on the review of existing documents and standards, the off-street parking demand survey, and the inter-jurisdictional best practices review undertaken as part of Phase 1 of this study, recommendations are provided regarding updates to the parking regulations in the City of Guelph’s Zoning By-law. These recommendations include updates to:

- Minimum parking rates and the consideration of maximum rates for residential, commercial and other land uses;
- Loading space requirements;
- Driveway width requirements;
- Garage dimension and projection requirements;
- Driveway material requirements;
- Driveway and parking location requirements;
- Parking space dimension requirements;
- Drive aisle requirements;
- Barrier-free and accessible parking requirements;

- Electric vehicle parking requirements;
- Stackable / hydraulic lift parking;
- Location-based parking options; and
- Transportation demand management measures.

Sections 2 and 3 provide additional context for the recommendations for each of the above referenced items, drawn from the review of existing documents and standards as well as the inter-jurisdictional best practices review. Following these sections, the remainder of the Report focuses on the specific items listed above. Additional information and findings from the off-street parking demand survey are included within every section, each of which conclude with our recommendations.

2 Overview of Existing Standards and Background Review

The following section of this Report provides an overview of existing parking standards contained in the current City of Guelph Zoning By-law and other related background reports, which were reviewed in Phase 1 of this study.

The intent of this review was to understand how the City currently regulates parking and loading, as well as the broader land use / transportation planning policy context of the City. The review was assessed and applied to the development of the recommended parking standards in this Report.

2.1 Existing Zoning By-law Standards and Analysis

As part of Phase 1 of this study, a review of the City of Guelph's existing Zoning By-law was undertaken to summarize the City's existing parking and loading standards and requirements.

The City of Guelph's existing Zoning By-law was approved by the Council of the City of Guelph on June 19, 1995, and certified by the City Clerk on August 29, 1997. Since that time, the Zoning By-law has been subject to hundreds of amendments (both site-specific and City-wide). However, the City's overarching parking and loading standards have remained unchanged.

The following subsections of this Report discuss the City's existing parking and loading regulations, requirements, and standards as set out in Section 4.13 of the Zoning By-law.

2.1.1 Required Parking Spaces

Section 4.13.4 of the Zoning By-law establishes the City's requirements for the number of parking spaces by land use, which are summarized in the following subsection. It is noted that the existing Zoning By-law only specifies minimum parking requirements and does not contain maximum parking space requirements.

These parking rates are summarized and discussed in Sections 4 through 19 of this Report and are compared to the rates and requirements of comparable municipalities. These sections assess the adequacy of existing standards and make recommendations for updates, where appropriate. Existing parking standards are also summarized in Appendix B of this Report.

2.1.2 Dimension of Parking and Loading Spaces

Section 4.13.3.2 of the Zoning By-law establishes minimum dimensions for parking spaces in the City of Guelph, which are summarized and reviewed in Section 14 of this Report.

It was observed that the Zoning By-law does not contemplate or establish dimension requirements for the following types of parking:

- Parallel parking spaces;
- Tandem parking spaces;
- Angled parking spaces; and / or,
- Small vehicle parking spaces.

Further, it was observed that the City's Accessible Parking Spaces requirements are not in alignment with current Provincial legislation.

The adequacy of the City's existing parking dimension requirements was analyzed and recommendations regarding parking space dimensions were developed. These recommendations can be found in Section 14.3 of this Report.

2.1.3 Driveway (Residential), Driveway (Non-Residential) and Parking Aisle Dimensions

The Zoning By-law establishes minimum dimension requirements for driveways and parking aisles, which are discussed in Sections 9 and 15 of this Report.

While the Zoning By-law establishes fairly clear direction on the width requirements for driveways and parking aisles associated with residential development, the dimensional requirements for driveways and parking aisles for non-residential development are less clear.

The adequacy of the City's existing parking aisle / driveway dimension requirements were analyzed and recommendations regarding these dimensions were developed. These recommendations are found in Section 9.3 and 15.3 of this Report.

2.1.4 Location of Parking

The existing Zoning By-law sets out limited direction regarding the location of parking in its residential and non-residential areas. These standards are summarized and assessed in Section 13 of this Report as are recommendations with regard to the same.

2.2 Review of Land Use Planning Framework and Applicable Background Studies and Reports

In addition to the review of existing Zoning By-Law requirements with regard to parking and loading, various background documents (including legislation, policies, plans and regulations) were reviewed in Phase 1 of the study. Documents specifically reviewed in Phase 1 of this study included:

- City of Guelph Official Plan;
- Urban Design Manual (Volumes 1 & 2);
- Built Form Standards for Townhouses and Mid-Rise Buildings;
- Commercial Built Form Standards;
- Active Transportation Network Study;
- Urban Design Concept Plans for Community Mixed Use Nodes and Select Intensification Corridors;
- Gordon Street Intensification Corridor Concept Plans;
- Affordable Housing Strategy;
- Corporate Administrative Plan;
- Development Engineering Manual;
- Cycling Master Plan;
- Guelph-Wellington Transportation Study;
- Commercial Policy Review: Stage 2 Preferred Policy Framework Report;
- Site Plan Procedures and Guidelines; and,
- Facility Accessibility Design Manual.

Exhibit 2-1 provides a summary of key findings from some of the documents reviewed.

Exhibit 2-1: Key Findings from Background Review

Document	Key finding
City of Guelph Official Plan	<p>The Official Plan sets out a broad range of policy guidance relating to parking, loading and transportation demand management, which is intended to inform the development of appropriate Zoning By-law standards.</p> <p>The Official Plan sets out policies to:</p> <ul style="list-style-type: none"> • Ensure that the transportation system is accessible and planned, implemented, and maintained in a financially sustainable manner. • To encourage and support walking and cycling. • To place a priority on increasing the capacity of the existing transit system. • To aim to increase non-auto mode shares. • To require minimum barrier-free parking spaces through the Zoning By-law. • Support transit through reduced parking standards for some land uses or locations, where appropriate, and making provisions for parking spaces for car share vehicles. • Require minimum provisions for on-site parking and storage for bicycles and other personal transportation devices in the Zoning By-law. • Consider reduced parking requirements within priority growth areas. • Manage the supply of parking as a TDM measure. • Establish maximum parking standards to promote the efficient use of land.
Urban Design Manual (Vol. 1 & 2)	<p>The Urban Design Manual establishes design directions and determines a list of action items “to promote and enhance the delivery of approved urban policy and design in the Guelph”, which include:</p> <ul style="list-style-type: none"> • Designing structured parking to be integrated where permitted through appropriate screening particularly where adjacent to sensitive uses. • Providing that the Zoning By-law should be updated to require bicycle parking spaces, establishing a maximum length of frontage to discourage surface parking from dominating the landscape, and reviewing parking requirements, including ratios, dimensions, and ratios of accessible parking spaces. • Limiting the width of driveways and garages to improve the pedestrian environment.
Built Form Standards for Townhouses and Mid-Rise Buildings	<p>The Built Form Standards provide design direction for new townhouses and mid-rise buildings, generally defined as buildings between four and six storeys, across the City of Guelph, including various directions regarding the design and siting of parking.</p>

Document	Key finding
City of Guelph Active Transportation Network Study	The Active Transportation Network Study provides direction regarding various aspects of the City's active transportation network, such as off-road component (trail width and surface), trail alignments on private lands, accessibility, trail crossings of roadways and other barriers, the management of the active transportation network in congested areas, and active transportation route maintenance.
Development Engineering Manual	The purpose of the Development Engineering Manual (DEM) is to provide guidance related to the City's engineering requirements, guidelines, specifications, and standards related to developments. The DEM outlines design specifications for surface parking space dimensions and access dimensions for parking lots.
Cycling Master Plan	The Cycling Master Plan outlines a series of recommendations and performance indicators to improve the modal share and operating conditions for cyclists. This study will compare bicycle parking requirements of other municipalities and will recommend an appropriate rate for Guelph.
Site Plan Procedures and Guidelines	This document identifies planning design criteria for Site Plan applications, including bicycle parking requirements and vehicle parking design. This includes locational requirements of parking and dimensions for vehicle parking stalls.

The findings of the Phase 1 review of background documents were further considered towards the development of recommendations contained later in this Report.

3 Review of Best Practices

In addition to the review of existing City of Guelph standards and background documents, an Inter-Jurisdictional Review was undertaken in Phase 1 of this study to compare the parking regulations of the City of Guelph to comparable municipalities and to identify perceived best practices and emerging trends. In addition, a review of the Institution of Transportation Engineers (ITE) Parking Generation Manual¹ was conducted to gain further insight into parking demand for various land uses. This Section of the Report highlights the findings of this Inter-Jurisdictional Review as well as several emerging best practices in the regulation and design of parking.

3.1 Review of Practices in Comparable Municipalities

Following a discussion with City Staff, an assessment of the municipal parking requirements was conducted for the following agreed upon five municipalities:

- City of Burlington;
- City of Kitchener;
- Town of Oakville;
- City of St. Catharines; and,
- City of Waterloo.

These municipalities were identified as comparable municipalities for various reasons including being similarly sized (in terms of population), being “outer-ring” Growth Plan municipalities, and having recently reviewed and updated their respective Zoning By-law and parking standards contained therein.

Exhibit 3-1 provides an overview of the Zoning By-law of the identified comparable municipalities, identifying the approximate date of their most recent reviews and their current status.

¹ Institute of Transportation Engineers, Parking Generation Manual, 5th Edition, 2019

Exhibit 3-1: Comparable Municipalities - Population and Status of Zoning By-laws

Municipality	Population (2017)	Status of Zoning By-law
City of Burlington	205,960	Comprehensive Zoning By-law approved in 2013. Parking standards revised in 2017.
City of Kitchener	242,368	Under development. Portion approved in April 2019 (remains in LPAT appeal period).
Town of Oakville	211,382	Approved by Town Council in 2014. Portions of Zoning By-law remain under appeal.
City of St. Catharines	133,115	Approved by City Council in 2013.
City of Waterloo	113,520	Approved by City Council in 2018. Under appeal.

Appendix B of this Report includes a table summarizing the parking rates of the comparable municipalities in relation to the existing parking rates of the City of Guelph.

3.1.1 City of Burlington

In 2017, the City of Burlington initiated an amendment to its zoning by-law for parking standards. A summary of parking rate requirements is provided in Appendix B. The following subsections detail highlights of the City's new parking requirements.

Downtown Parking Exemption Area

Section 2.25 of the Zoning By-law establishes parking rates which apply to uses across the City. Notwithstanding this, the Zoning By-law includes "Diagram 1A: Downtown Parking Exemption Area". For instance, for apartment uses within the subject area, the parking requirement is 1 space per unit (which is less than the general standard). In certain portions of the Downtown Parking Exemption Area 100% of occupant parking must be enclosed (i.e., no surface parking).

The Burlington Draft Zoning By-law also includes the establishment of different, typically reduced, parking rates for Intensification Areas outside of the area where the Downtown Exemption applies.

Maximum Parking Standards

The City of Burlington uses maximum parking standards within its Downtown and Mixed Use zones. In the City's MXG, MXC and MXT zones, the number of parking spaces provided shall not be greater than 102% of the minimum standard outlined in the general regulations of the Zoning By-law.

Shared Parking for Mixed Use Zones

The Zoning By-law contemplates the use of shared parking within mixed use developments, which are based on the peak parking demands of Office / Financial Institutions, Retail / Service Commercial, and Restaurant uses. Section 4.6.e) of the Zoning By-law provides that:

"Where the use is a mixed use development, the parking requirement may be calculated using per cent of peak period use as given in the detailed table outlined below.

For purposes of this subsection, mixed use development is defined as a development which contains any combination of office, retail / service commercial, restaurant and / or overnight accommodation uses which shares parking on the same lot."

Exhibit 3-2: City of Burlington Shared Parking, Peak Period Occupancy Tables

PERCENT OF PEAK PERIOD OCCUPANCY [Weekday]				
Type of Use	Morning	Noon	Afternoon	Evening
Office/Financial Institution	100	90	95	10
Retail/Service Commercial	80	90	90	90
Restaurant	20	100	30	100

PERCENT OF PEAK PERIOD OCCUPANCY [Weekend]				
Type of Use	Morning	Noon	Afternoon	Evening
Office/Financial Institution	10	10	10	10
Retail	80	100	100	70
Restaurant	20	100	50	100

The Zoning By-law establishes a methodology for determining the shared parking requirement for mixed use developments, as follows:

- Calculate the parking requirement for each use contained within the development (as if free-standing).
- Multiply the parking requirement for each use by the per cent of the peak period for each time period for both weekdays and weekends.
- Total each column for weekday and weekend use.
- The maximum figure obtained from all time periods becomes the parking requirement for the specific mixed use development.

3.1.2 City of Kitchener

The City of Kitchener is currently undertaking a phased review of its Zoning By-law, which began in 2014. On April 18, 2019, the first phase of the new Zoning By-law was approved by City Council, which includes the framework of the document, the definitions, general regulations, parking requirements, and every zoning section with the exception of residential zones, downtown zones, and those areas that are, or will be, undergoing specific neighbourhood planning or secondary planning reviews (including Major Transit Station Areas). At this time, it is unclear whether or not any appeals have been received (appeal period ongoing).

A summary of key changes made to the parking requirements and highlights of the parking requirements of the Zoning By-law are summarized as follows.

Elimination Minimum Parking Rate in Urban Growth Centre

For certain types of developments and land uses within the Urban Growth Centre zones, no minimum parking requirement exists. This includes multiple residential buildings, lodging houses, commercial entertainment, brewpubs, fitness centres and health care clinics, among others.

Parking Maximums

The Zoning By-law establishes maximum parking standards within many Urban Growth Centre, Mixed Use and other zones for various land uses. This includes the following parking maximums for lands within the Mixed Use Zones:

- Multiple Dwellings: Max. 1.3 per unit;
- Residential Care: Max. 1 per 70 s.m.;
- Brewpub: Max. 1 per 15 s.m.;
- Commercial Entertainment: Max. 1 per 23 s.m.;
- Day Care Centre: Max. 1 per 30 s.m.;
- Industrial Employment: Max. 1 per 70 s.m.; and,
- Health Clinic: Max. 1 per 15 s.m.

The Zoning By-law also includes the following parking maximums for lands within all other zones:

- Multiple Dwellings: Max. 1.4 per unit;
- Residential Care: Max. 1 per 70 s.m.;
- Brewpub: Max. 1 per 15 s.m.;
- Commercial Entertainment: Max. 1 per 23 s.m.;
- Day Care Centre: Max. 1 per 23 s.m.;
- Industrial Employment: Max. 1 per 70 s.m.; and
- Health Clinic: Max. 1 per 15 s.m.

Electric Vehicle Parking

Section 5.8 of the Zoning By-law now requires that a minimum of “20% of the parking spaces required for multiple dwellings shall be designed to permit the future installation of electric vehicle supply equipment”.

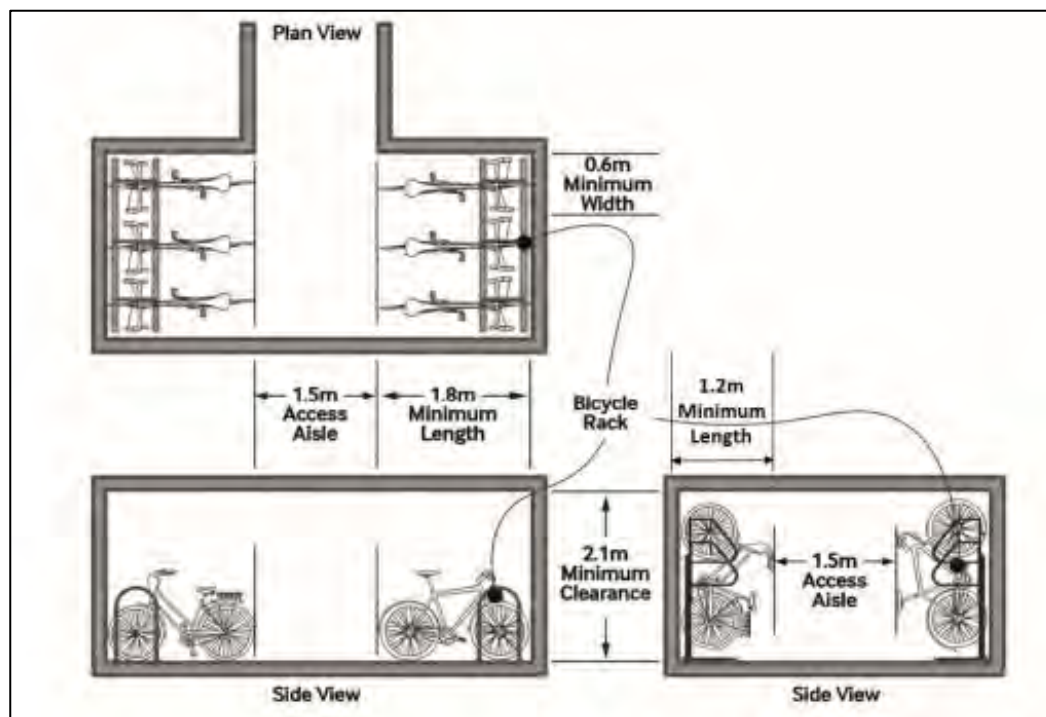
For non-residential uses, a minimum of 15% of parking spaces not located within a building must be designed to allow for the installation of electric vehicle supply equipment in the future. Additionally, a minimum of 5% of parking spaces not located within a building is required to be electric vehicle parking spaces.

Within an Urban Growth Centre Zone, the Zoning By-law requires that residential and non-residential electric vehicle parking requirements apply regardless of whether the parking spaces are located indoors or outdoors.

Bicycle Parking and Shower and Change Facilities

Section 5.5 of the Zoning By-law establishes minimum rate requirements and dimension requirements for bicycle parking. The size requirements for bicycle parking stalls are shown in Illustration 5-2 of the Zoning By-law, which is displayed in Exhibit 3-3.

Exhibit 3-3: Illustration 5-2 (Bicycle Parking Dimensions), City of Kitchener Zoning By-law



Where Class A bicycle parking facilities are provided for non-residential developments, s. 5.5 of the Zoning By-law requires that shower and change facilities shall be provided in accordance with the table in Exhibit 3-4.

Exhibit 3-4: Regulations for Shower and Change Facilities, City of Kitchener Zoning By-law

Required Number of Class A Bicycle Parking Stalls	Minimum total area of Shower and Change Facilities	Minimum number of Showers within Shower and Change Facilities
5-60	8 m ²	2 showers
61-120	12 m ²	4 showers
121-180	16 m ²	6 showers
Greater than 180	20 m ²	8 showers

3.1.3 Town of Oakville

In February 2014, the Council for the Town of Oakville approved its new Comprehensive Zoning By-law which applies to all properties in Oakville south of Dundas Street and north of Highway 407. Following Council approval, several sections of the Zoning By-law were appealed and remain before the Ontario Municipal Board.

Through the Town's Comprehensive Zoning By-law review process, its parking standards were updated. A summary of key changes made to the Town of

Oakville's new Zoning By-law with regards to the provision of parking is described as follows.

Cash-in-lieu of Parking

For sites within identified Mixed Use Zones (Maps 19(2a) and 19(7a)), parking spaces and bicycle parking spaces required by the Zoning By-law for non-residential uses shall not be required if the Town enters into an agreement with the landowner respecting the payment of cash-in-lieu for some or all of the parking spaces, bicycle parking spaces, aisles, or driveways required. Payment of cash-in-lieu of parking is not permitted for residential uses.

Hydraulic Lift Parking / Stacked Parking

The Zoning By-law establishes a definition for Stacked Parking Spaces, being “a parking space that is positioned above or below another parking space and is accessed only by means of an elevating device.” Section 5.1.10 of the Zoning By-law permits stacked parking spaces for any dwelling.

Reduction of Minimum Parking Space Requirements in Mixed Use Zones

In identified Mixed Use / Growth Areas, the minimum number of parking spaces required is reduced for certain land uses in order to support the Town's strategic and policy objectives related to transit, growth management, and design.

Discretionary Loading Spaces

The Town of Oakville does not require a certain number of loading spaces but rather leaves the provision of loading spaces to the determination of businesses. However, should loading spaces be provided, the Zoning By-law establishes minimum size requirements and locational criteria.

3.1.4 City of St. Catharines

In December 2013, Council of the City of St. Catharines passed Comprehensive Zoning Bylaw 2013-283, which was subsequently appealed and later approved by the Ontario Municipal Board.

Through its Comprehensive Zoning By-law Review process the City reviewed its existing parking standards and developed and adopted new standards which now apply City-wide. The following subsections provide an overview of unique elements of the City's approach to regulating parking as set out in its Zoning By-law.

Bicycle Parking

Through its new Zoning By-law, the City implemented new bicycle parking requirements for specific land uses as set out in s. 3.15.1 of the Zoning By-law. This includes 1 space per classroom for schools, 6 spaces plus 1 space for every 10 units, and 1 space per 1,000 s.m. for shopping centres.

Obstructed Parking Space Dimensions

The City of St. Catharines Zoning By-law establishes parking space dimensions for standard parking spaces, as well as those that may be obstructed on one or both sides. A typical parking space is required to be 2.6 metres by 5.2 metres. For spaces obstructed on one side, the minimum width is increased to 3.0 metres. For spaces obstructed on both sides, the Zoning By-law required a width of at least 3.5 metres. The purpose of these increased widths is to ensure that the parking space can be easily manoeuvred into and out of.

3.1.5 City of Waterloo

In September 2018, Council of the City of Waterloo adopted a new Zoning Bylaw, which has subsequently been appealed to the Local Planning Appeal Tribunal. The outstanding appeals are site-specific in nature and should not impact the parking requirements.

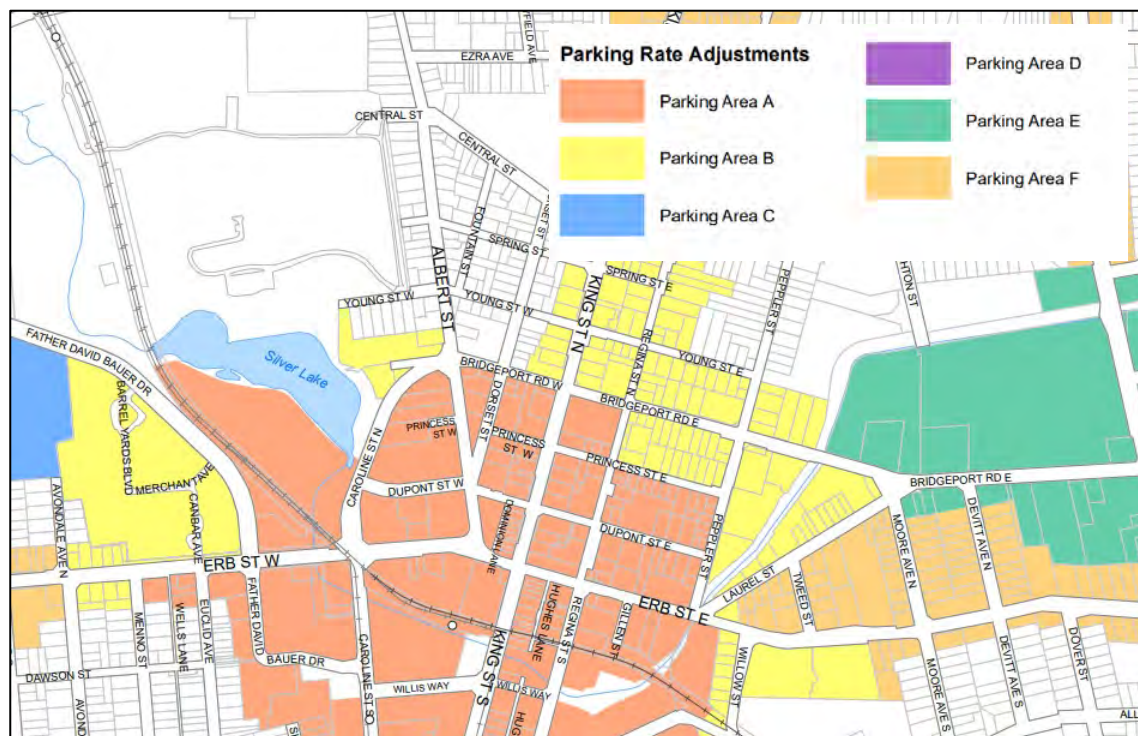
Through its Zoning By-law review process, the City has developed and implemented new parking standards that apply city-wide. Appendix B of this Report details the use-specific parking ratios contained in the City's new Zoning By-law. The following subsections provide a summary of key changes of the City of Waterloo's new Zoning By-law with regards to the provision of parking.

Parking Overlay Map

A key change made by the City of Waterloo's new Zoning By-law was the introduction of Schedule A1: Zoning By-law Parking Overlay, a portion of which is shown in Exhibit 3-5. The purpose of this Parking Overlay is to establish area-specific parking rates that provide for an as-of-right reduction from the typical parking rates applying to the underlying Zone. In certain instances, the Parking Overlay also establishes maximum parking rates.

Generally, the boundaries of the Parking Overlay correspond to the boundary of the Urban Growth Centre, Mixed Use Areas and Intensification Corridors of the City.

Exhibit 3-5: Schedule A1 – Zoning By-law Parking Overlay, City of Waterloo Zoning By-law



The Parking Overlay schedule is to be read in conjunction with the following matrix, shown in Exhibit 3-6. For instance, for a property zoned “RMU-20” found within Parking Overlay “Area A”, the required parking standard is 0.65 parking spaces per residential unit, plus 0.1 visitor parking spaces per unit.

Exhibit 3-6: Parking Overlay Matrix, City of Waterloo Zoning By-law

Minimum Parking Rate		Area A on Schedule A1	Area B on Schedule A1	Area C on Schedule A1	Area D on Schedule A1	Area E on Schedule A1	Area F on Schedule A1	All Other	
RMU-20	Use	0.65	0.75	0.90	1.00	1.00	1.10	1.15	PDU*
	Visitor	0.10	0.10	0.10	0.10	0.10	0.10	0.10	PDU*
		0.75	0.85	1.00	1.10	1.10	1.20	1.25	PDU*
RMU-30	Use	0.65	0.75	0.90	1.00	1.00	1.10	1.15	PDU*
	Visitor	0.10	0.10	0.10	0.10	0.10	0.10	0.10	PDU*
		0.75	0.85	1.00	1.10	1.10	1.20	1.25	PDU*
RMU-40	Use	0.65	0.75	0.90	1.00	1.00	1.10	1.15	PDU*
	Visitor	0.10	0.10	0.10	0.10	0.10	0.10	0.10	PDU*
		0.75	0.85	1.00	1.10	1.10	1.20	1.25	PDU*
RMU-60	Use	0.60	0.65	0.70	0.80	0.80	0.90	0.90	PDU*
	Visitor	0.10	0.10	0.10	0.10	0.10	0.10	0.10	PDU*
		0.70	0.75	0.80	0.90	0.90	1.00	1.00	PDU*
RMU-81	Use	0.60	0.65	0.70	0.80	0.80	0.90	0.90	PDU*
	Visitor	0.10	0.10	0.10	0.10	0.10	0.10	0.10	PDU*
		0.70	0.75	0.80	0.90	0.90	1.00	1.00	PDU*
Non-Residential Uses	Use	1.50	1.80	2.10	2.40	2.40	2.70	3.00	/100m2*
* PDU = Per Dwelling Unit /100m2 = Per 100 square metres of BUILDING FLOOR AREA									

Bicycle Parking Requirements

The City of Waterloo's Zoning By-law establishes bicycle parking standards and requirements, which are set out in s. 6.6 of the Zoning By-law. The Zoning By-law requires "Type A" and "Type B" (covered and non-covered) parking spaces for both residential and non-residential uses, as set out in s. 6.6 of the Zoning By-law. The required bicycle parking rates vary by zone and are also tied to the Parking Overlay schedule, described above.

For traditional / horizontal bicycle parking, the Zoning By-law requires a minimum width of 0.6 metres per space, and a length of 2.0 metres for a single side rack space. For vertically mounted bicycle parking, the Zoning By-law requires a minimum width of 0.6 m, a length of 1.25 metres and a vertical clearance of 2.0 m.

Parking Maximums

The City of Waterloo has implemented maximum parking rates for many of its Mixed Use zones, Major Station Areas, Urban Growth Centre and Intensification Corridors.

Exhibit 3-7 shows the maximum parking rates for the City's Station Area Mixed Use Community Commercial (C1A) zone. In this zone, parking maximums have been implemented to support transit-oriented development in areas within proximity to major transit station areas.

Exhibit 3-7: City of Waterloo Station Area Mixed Use Community Commercial (C1A) Parking Requirements

Maximum Parking Rate		Area A on Schedule A 1	Area B on Schedule A 1	Area C on Schedule A 1	Area D on Schedule A 1	Area E on Schedule A 1	Area F on Schedule A 1	All Other	
Residential	Use	1.50	1.50	1.50	1.50	1.50	1.50	1.50	PDU*
Residential	Visitor	0.15	0.15	0.15	0.15	0.15	0.15	0.15	PDU*
		1.65	1.65	1.65	1.65	1.65	1.65	1.65	PDU*
Non-Residential	All	3.00	3.00	3.00	3.00	3.00	3.00	3.00	/100m2*
SURFACE PARKING									
Non-Residential	All	4.00	4.00	4.00	4.00	4.00	4.00	4.00	/100m2*
PARKING SPACES									
* PDU = Per Dwelling Unit /100m2 = Per 100 square metres of BUILDING FLOOR AREA									

Hydraulic Lift Parking

Section 6.3.2 of the Zoning By-law recognizes the potential use of hydraulic lift parking spaces to help satisfy parking needs. However, the Zoning By-law provides that “a hydraulic lift parking space shall not be used for determining compliance with the parking requirements of this By-law unless expressly stated otherwise in this By-law.”

Based on our review of the Zoning By-law, it is our understanding that hydraulic lift parking is not permitted as-of-right in any zone and can only be used to satisfy parking requirements through a site-specific Zoning By-law Amendment.

Electrical Charging Stations

Section 6.3.1.1 of the Zoning By-law requires that a certain percentage of parking spaces are required to be designed Electric Vehicle Parking Spaces, which are parking spaces “designed and constructed to be electric vehicle ready”.

The Zoning by-law provides that a minimum 80% of structured parking spaces for apartment buildings, multi-unit residential buildings, and mixed use buildings shall be designed electric vehicle parking spaces.

In addition to the above, the Zoning By-law requires installed Electric Vehicle Parking Spaces for non-residential uses based on Table 6C of the Zoning By-law, shown in Exhibit 3-8 below.

Exhibit 3-8: Table 6C – Electric Charging Stations, City of Waterloo Zoning By-law

TABLE 6C: ELECTRIC VEHICLE PARKING – NON-RESIDENTIAL SURFACE SPACES	
NON-RESIDENTIAL SURFACE PARKING SPACES	Electric Vehicle Parking Spaces (minimum)
0 – 19	0
20 – 49	1
50 – 84	2
85 – 119	3
120 – 149	4
150 or more	3% of total required parking

3.2 ITE Parking Generation Manual

The ITE Parking Generation Manual is a document that is intended to assist transportation engineers and planners by presenting parking demand data that has been gathered from public agencies, private developers, consulting firms, and other sources across North America. Parking demand data is aggregated by day of the week, land use, the surrounding urban environment, and is presented in typical units for the given land use (e.g., Gross Floor Area, number of seats, number of occupants, etc.) The contents of the Parking Generation Manual include text, tables, plots, and site statistics to help identify relationships between parking demand and representative sites.

The parking demand presented in the Parking Generation Manual was used as part of this study to help inform appropriate Zoning By-law parking rates for the City of Guelph. It should be noted that the parking data presented in the manual is helpful for comparing parking demand for various uses, but the characteristics of the sample sites may differ from the local context. Therefore, the average parking rates presented are used as a basis for the recommended parking rate.

3.3 Other Observed Best Practices

3.3.1 Reduced Parking Minimums

Definition

Reducing the amount or ratio of parking that developers are required to provide based on local context (e.g., density of area, quality of transit service).

Description

Minimum parking standards are often a blunt policy tool. As stated in a recent US Environmental Protection Agency (EPA) publication, “Generic parking standards

have not kept up with the complexity of modern mixed use development and redevelopment.”²

Since last reviewed, the land use planning and transportation planning framework applicable to the City of Guelph has changed considerably. The City’s in-effect parking standards are no longer responsive to development trends and give little consideration to transit-oriented development, infill development, or affordable housing, all which often have unique parking requirements.

There are many factors that influence parking demand including development type and size, development density and design, availability of transportation choices, surrounding land-use mix, off-site parking availability, and demographics (e.g., income, age, etc.). There are two main approaches to reducing minimum requirements to reflect local conditions. The first is to adopt unique parking standards for a specific area reflecting the land use and transportation objectives for that area. The second is to adopt modifying factors that reduce minimum parking requirements based on-site-specific conditions (e.g., proximity to transit, availability of good pedestrian infrastructure, adoption of TDM programs, etc.). Modifying factors must be developed with careful consideration of the factors influencing parking demand.

Litman³ summarizes the potential parking demand reductions that can be achieved based on a variety of site-specific factors, such as lower average income, availability of car share vehicles, and land use mix. While the actual demand reductions should be applied with care, this list provides a good summary of the many factors affecting parking demand.

Representative Examples from Comparable Municipalities

The Cities of Waterloo, Kitchener, Burlington and Oakville all permit reduced parking standards in certain areas of their respective communities. Of note, the City of Waterloo’s “Parking Overlay” schedule contained in its Zoning By-law provides for area-specific parking rates based on general parking standards that apply everywhere else in the community.

3.3.2 Maximum Parking Rates

Definition

Maximum parking requirements set an upper limit on the number of parking that developers may provide, as specified in land use by-laws.

Description

The maximum parking standard is a policy-based parking management tool that is receiving increased attention. By limiting the amount of automobile parking for specific sub-regions or urban contexts, a municipality makes a statement that parking provision must be balanced with other land use and transportation

² US Environmental Protection Agency. (2006) Parking Spaces/Community Places – Finding the Balance Through Smart Growth Solutions. Washington, DC.

³ Litman, T. (2006) Parking Management Best Practices. American Planning Association, Chicago, IL.

objectives and that the automobile is not the only mode for travel to that area. Currently, the City of Guelph does not establish parking maximums for any of its zones or land uses in its Zoning By-law.

The use of establishing parking maximums tends to be at odds with the current practice (among many commercial developers) to provide as much parking as possible. For example, the industry standard among shopping centres is to supply sufficient parking to meet the parking demand of customers and employees at the 20th busiest hour of the year. This means that parking facilities will not be fully occupied during 99% of operating hours and that typically over half of the available spaces will be vacant during 40% of the year's operating hours⁴.

Parking maximums are intended to:

- Reduce the amount of space dedicated to parking and support transit and pedestrian-oriented development;
- Provide a strong incentive for transportation demand management⁵;
- Curb practices among some industries towards parking oversupply, particularly in areas in proximity to transit stations, where transit use may reduce parking demand;
- Potentially allow parking pricing to come into play with associated transportation demand management benefits (e.g. increased transit use); and,
- Allow the City to have input on how all parking is built, which enhances its ability to help create well-designed urban areas.

Despite the benefits of parking maximums, strategies to reduce and limit parking must be implemented carefully. Parking maximums may be opposed by the development community and imposing parking maximums that are too restrictive may encourage development to go elsewhere or result in parking spill-over problems, particularly if there is poor transit accessibility.

⁴ Urban Land Institute and International Council of Shopping Centers. (2003) Parking Requirements for Shopping Centers, 2nd Edition. Washington, D.C.

⁵ The undersupply of parking for employees is a key incentive for employers to adopt and promote workplace transportation demand management. Ample, free parking at workplaces has been cited as one of the biggest barriers to TDM in Markham (Lorenzo Mele, SmartCommute Co-ordinator, Markham, personal communication).

There are a number of approaches to facilitate effective implementation of parking maximums:

- Maximums should be based on research regarding parking demand and involvement with key stakeholders;
- Maximum standards can be phased in over time as demand reduction programs and transit improvements are provided;
- Individual developments may be allowed to exceed parking maximums if other objectives are met (e.g. sharing of commercial parking with transit park and ride, structured parking, etc.);
- Maximum limits can be set to only apply to surface parking, as in Calgary; and,
- Supplemental strategies, such as preferential parking for residents and parking enforcement may be required to minimize spill-over issues.

Representative Examples from Comparable Municipalities

The use of parking maximums is growing in popularity amongst Canadian municipalities. Traditionally, maximum parking standards have been designed to limit automobile volumes entering downtown or central business areas such as in Vancouver and Toronto. However, parking maximums are being used increasingly in suburban contexts to support intensification areas.

The Cities of Waterloo, Kitchener and Oakville establish parking maximums for various uses in certain areas of their respective communities. Through its new Zoning By-law, both the City of Burlington (draft by-law) and the City of Kitchener have implemented parking maximums that apply to various uses within the City's Urban Growth Centre and Mixed Use zones, among others.

In addition to establishing maximum parking ratio by use, maximum parking standards have been implemented in a variety of other ways by other municipalities:

- The Land Use Bylaw Review Parking Strategy for Calgary, AB proposes that office parking requirements be set to a minimum of 1.5 stalls per 100 square metres gross floor area, with a maximum rate of 3 stalls per 100 square metres gross floor area *in surface parking*. This specification limits the amount of surface parking while providing some flexibility to development to provide more parking if desired in parking structures. However, given that above-ground structured parking typically costs more than three times the amount of surface parking to build, developers have a strong disincentive to build more parking.
- San Francisco restricts a maximum of 7% of a building's gross floor area for the use of parking.

Elsewhere, a significant emergence of the use of parking maximums recently occurred in the United Kingdom, when the government planning policy on parking was reviewed and a new version issued in 2001. The revision included a nation-

wide shift from the previous use of minimum parking standards to the use of maximum parking standards. Scotland has also instituted nation-wide parking maximums.

3.3.3 Transportation Demand Management

Transportation demand management (TDM) tools can be used in a variety of ways to decrease the demand for parking.

The City's Transportation Master Plan sets goals aimed at integrating land use and transportation (including parking), encouraging mode shifts to public transit, walking and cycling, and developing a multi-modal transportation network. TDM tools can help facilitate the mode shift to sustainable modes of travel and help reduce the overall demand for parking. Some of the TDM initiatives that can be used by developers to reduce the requirement for parking are identified below.

3.3.3.1 Preferential Carpool Parking

Definition

Desirable parking spaces are set aside as reserved car and van pools parking spaces.

Description

Preferential parking provides an incentive to ridesharing by providing reserved spaces to carpool vehicles. In addition to the TDM benefits, encouraging carpooling also reduces parking demand. Preferential parking is normally applied at off-street facilities at workplaces or institutions. The effectiveness of such a strategy will depend on the relative attractiveness of preferential parking (i.e., shortage of easily accessible and convenient all-day parking). Preferential parking is most attractive in large, well-utilized lots where preferential parking spaces closer to building entrances will provide a shorter walk and potentially an enhanced sense of security and a better chance of finding a parking space. It is particularly applicable in areas where transit options are minimal, such as many peripheral workplaces in Guelph.

Monitoring is required to ensure appropriate use. Carpoolers may be required to register to be eligible for preferential spaces. Unless parking facilities are staffed, a transportation or parking coordinator would need to be designated to monitor carpoolers.

Examples

Designated spaces for carpoolers are fairly common in cities implementing TDM programs.

- Markham Civic Centre provides preferential parking;
- Select City-owned parking garages in St. Catharines offer carpool spaces in preferential locations; and,
- In Portland, Oregon, for office uses with more than 20 required parking spaces, 5 spaces or 5% of the parking spaces on-site, whichever is less, must be reserved for carpool use. These sites must be located close to the building entrance.

3.3.3.2 Bicycle Parking Requirements

The City of Guelph's Zoning By-law currently only requires bicycle parking within Downtown. The Zoning Bylaw does not address additional facility elements, such as covered bicycle parking, or shower / change facilities in office spaces.

Definition

Similar to vehicle parking requirements, Zoning By-laws can require parking facilities to be provided for bicycles.

Description

The provision of adequate bicycle parking and associated shower and change facilities is an important element in the promotion of bicycle use. More bicycle trips will reduce the number or growth of vehicle trips and leads to a more sustainable pattern of urban travel. As a method of promoting cycling, a number of municipalities have implemented minimum bicycle parking requirements into their Zoning By-laws.

Bicycle parking requirements are typically specified based on number of residential units or gross floor area for other uses, such as offices. Requirements relating to change and shower facilities typically only apply to non-residential developments (as washrooms within residential units fulfil the same purpose).

To further encourage developers to provide more bicycle parking spaces, some municipalities allow the reduction of vehicle parking in exchange for the provision of bicycle parking spaces in excess of those specified by the Zoning By-laws. Typically, 1-5 bicycle parking spaces can be substituted for a parking space up to a maximum reduction in vehicle parking.

Examples

Although bicycle parking regulations are still uncommon in most Canadian municipalities, their use has been steadily increasing in recent years. All of the comparable municipalities reviewed have implemented bicycle parking requirements as part of their most recent Zoning By-law reviews.

Municipalities that allow a reduction of vehicle parking requirements in exchange for the provision of bicycle parking spaces in excess of the Zoning By-law rate are listed below:

- The City of Kitchener allows a 1 vehicle parking space reduction for every 5 bicycle parking spaces beyond the required minimum, up to a maximum vehicle parking space reduction of 10%; and
- The City of Portland, Oregon allows a 1 vehicle parking space reduction for every 5 bicycle parking spaces beyond the required minimum, up to a maximum vehicle parking space reduction of 25%. Existing parking may be converted to take advantage of this provision.

3.3.3.3 Carshare

Definition

A car rental model that provides vehicles for members of the carshare organization to rent (usually short-term) by reserving the vehicle in advance through a web or app interface.

Description

The rise in popularity of carsharing has been important in the emergence of multi-modality and the mobility-as-a-service concept. There has been a trend in the increased use of carsharing in Canada over the past decade. In combination with the emergence of several other mode options, carsharing has been effective in reducing car ownership, especially in areas where other multi-modal transportation options are available. In addition, carshare organizations absorb the attached costs of car ownership – insurance, monthly payments, maintenance, and gas, among others.

In recognizing the limited availability of carshare services in Guelph today, it is likely that as Guelph works towards improving alternative transportation options and citizens become more multi-modal, the demand for carshare services will emerge. It is recognized that parking standards can play an important role in attracting carshare suppliers to an area by allowing parking reductions to developers.

Examples

While it is not in the City of Toronto's Zoning By-law (but is referenced in car share guidelines), the City typically allows private developers to provide up to 4 fewer parking spaces for each car share space that is provided on-site. The City of Kitchener also allows a 4-vehicle space reduction for every car share space

provided, up to a maximum reduction of 16 spaces. This car share parking reduction has been implemented as a component of the City of Kitchener's TDM reduction checklist.

3.3.3.4 Peer-to-Peer Shared Parking

Definition

Facilitated through mobile apps, such as Rover Parking, peer-to-peer shared parking allows people to offer up their parking spaces in driveways or lots to drivers looking for parking.

Description

Similar to Airbnb, peer-to-peer shared parking platforms like Rover Parking allow drivers to reserve parking spaces available on private property, in driveways or apartment parking lots. This platform facilitates the utilization of parking spaces that would otherwise be empty, which makes better use of available parking that is near the driver's destination. The owner is able to make their space available through the app and charges a set hourly or daily rate for drivers who use their space.

There are challenges with peer-to-peer shared parking, if residents begin renting out several spaces on their driveway, the municipality can view the driveway as a commercial parking lot, which is illegal unless the property is zoned as such. The provision of public parking on private facilities can also lead to an influx of vehicle traffic in an otherwise quiet residential area.

If in the future, more shared parking platforms are on the market, a detailed study examining the impact on the municipal parking system should be examined to determine whether the service could be leveraged to improve the parking system.

Examples

The Town of Innisfil has recently partnered with Rover Parking to encourage homeowners to rent out empty spaces in their driveways. The Town recognised that the available parking supply in some areas was scarce, due to high parking demand at public parks in the summer combined with on-street parking bans during the winter for snow clearing activities. The objective of the Town's partnership with Rover Parking is to offer additional parking spaces to deter drivers from parking in areas where parking is not permitted.

3.3.3.5 Unbundled Parking

Definition

A residential parking management strategy where parking spaces are rented or sold separately from the unit, depending on if the resident requires a parking space.

Description

When justifying a lower parking rate than what is outlined in the Zoning By-law, developers will sometimes cite the provision of unbundled parking in the building. The belief is when tenants or buyers are presented with the choice to pay extra for a reserved parking space on the property, many will opt out. This strategy will deter marginal vehicle owners from owning a vehicle and will choose alternative modes of transportation instead. Studies have shown that car ownership in buildings with unbundled parking is much more likely to have reduced car ownership compared to buildings where parking is bundled with the unit.

One benefit to unbundled parking is that it may lead to higher parking utilization since the only residents who own a parking space are the ones who own a vehicle. Another benefit is that housing becomes more affordable since residents are not forced to pay for a parking space they don't use, this is especially true since lower-income households are less likely to own a vehicle.

The property managers can facilitate unbundled parking in a variety of ways, some of which are listed below:

- Creating a market place where tenants / owners can list the availability of their unused parking spaces for rent by other tenants;
- Offer discounts to renters who choose not to take on a parking space; and
- In condominiums, the condominium association can take on ownership of the building's parking supply, which is then leased out to occupants, separate from the deed.

The provision of unbundled parking stems from parking minimums that are too high. If parking minimums are set at an appropriate rate, developers would likely provide the amount of parking that they believe would be purchased by potential residents instead of forcing costs of parking to all residents.

3.3.3.6 Off-site Parking

Definition

Where the required parking supply for a land use is provided in another facility separate from the subject property.

Description

An off-site parking facility can serve the parking needs of multiple nearby developments, resulting in a lower overall parking supply through shared parking provisions than if all developments provided dedicated on-site parking. Additionally, installing a carshare service in an off-site parking facility that serves multiple developments is anticipated to result in a higher utilization of that carshare vehicle.

The main consideration when evaluating off-site parking for a development is whether the parking facility is within acceptable walking distance. Research

indicates that the distance travellers are willing to park from their destination varies depending on factors such as type of establishment and type of parking facility. Research by the Victoria Transport Policy Institute recommends the maximum walking distances presented in Exhibit 3-9 for the corresponding land uses presented in Exhibit 3-10. Distances are provided by levels-of-service (LOS) with LOS A being the best and LOS D being the worst.

Exhibit 3-9: Maximum Walking Distance

Walking Environment	LOS A	LOS B	LOS C	LOS D
Climate Controlled	300 m	730 m	1,150 m	1,580 m
Outdoor / Covered	150 m	300 m	450 m	600 m
Outdoor / Uncovered	120 m	240 m	360 m	480 m
Through Surface Lot	100 m	210 m	320 m	420 m
Inside Parking Facility	90 m	180 m	270 m	360 m

Exhibit 3-10: Walking Distance Targets

Adjacent	Minimal (LOS A or B)	Median (LOS B or C)	Long (LOS C or D)
People with disabilities	Grocery stores	General retail	Airport parking
Deliveries and loading	Residents	Restaurant	Major sport / cultural event
Emergency services	Medical clinics	Employees	Overflow parking
Convenience store	Professional services	Entertainment center	
		Religious institution	

One challenge with the provision of off-site parking is that there needs to be a guarantee that the off-site parking lot will not be redeveloped. If the off-site parking facility is redeveloped, the property would not be meeting the parking requirement.

3.3.4 Hydraulic Lift (Stackable) Parking

The City of Guelph's Zoning By-law currently contains a definition of "automated parking system" and includes regulations for this type of parking within the Downtown.

Definition

A parking space that is positioned above or below another parking space and is accessed only by means of an elevating device.

Description

Hydraulic lift parking solutions provide the opportunity for land developers to reduce the amount of physical space dedicated to parking and drive aisles, by

allowing cars to be stacked on top of one another in an automated tracking system.

While fairly uncommon in the North American context, stackable parking solutions have been used elsewhere in the world for decades, providing a space-saving solution to parking requirements.

While stackable parking may provide a unique alternative to surface or structured parking facilities, there are a number of matters that should be considered prior to the use of these systems, including timing requirements (i.e., queuing of cars), ongoing maintenance and responsibilities, and appropriate drive aisle dimensions for shuffling and maneuvering of cars.

Representative Examples from Comparable Municipalities

The Cities of Waterloo and Oakville both contemplate the use of hydraulic parking solutions. The City of Waterloo's Zoning By-law permits the use of stable parking solutions but does not consider a stacked parking space towards the satisfaction of parking requirements as of right.

3.3.5 Shared Parking

Definition

Shared parking involves the use of one parking facility by more than one land use activity, typically taking advantage of different parking demand patterns by time of day to reduce the total amount of parking that would have been required if facilities were not shared.

Description

Shared parking lots do not designate specific spaces for specific users. Rather, the spaces operate as a pooled parking resource. This strategy can be considered on a "micro" scale within a single development, or on a "macro" scale between several developments.

The biggest benefits are realized with mixed use developments, where users have different peak demand times. For example, because peak demand would be experienced at one use when the other sees low demand, a restaurant and an office can share a parking facility with fewer total parking spaces than would otherwise be required for two separate parking facilities. As a result, shared parking results in more efficient use of the parking supply regardless of the location of the development.

Shared parking requires some assessment of typical occupancy rates during different times of the day to determine if two uses can successfully share a parking lot. Examples of occupancy rates are included in Exhibit 3-11.

Exhibit 3-11: Parking Occupancy Rates by Time of Day (Burlington)

Land Uses	Morning	Noon	Afternoon	Evening
Weekday				
Office	100%	90%	95%	10%
Retail	80%	90%	90%	90%
Restaurant	20%	100%	30%	100%
Weekend				
Office	10%	10%	10%	10%
Retail	80%	100%	100%	100%
Restaurant	20%	100%	50%	100%

As shown in Exhibit 3-11, the parking occupancy rates can fluctuate significantly by day and time of day. An example of the parking space reduction is shown in Exhibit 3-12.

Exhibit 3-12: Hypothetical Mixed Use Development: Non-Shared vs. Shared Parking

Land use	Parking Required	Reduced Parking Requirement							
		Morning		Noon		Afternoon		Evening	
		Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday
Office	100	100	10	90	10	95	10	10	10
Restaurant	50	10	10	50	50	15	25	50	50
Total	150	110	20	140	60	110	35	60	60

As shown in Exhibit 3-12, the sample shared parking rates show that the peak highest overall demand on the site is expected at noon on a weekday. While 150 spaces would be required if the uses were analyzed separately, a reduction of 10 spaces could be justified if the uses were analyzed together.

An alternative to a shared parking scheme is the provision of a blended parking rate that could apply to shopping centres or other developments where a single lot is shared by multiple businesses. The principle behind the blended parking rate is similar to the shared parking table, as they both account for the variation of parking demand throughout the day. Wherever blended parking rates are proposed, there are limitations outlined in the Zoning By-law such as various land uses that the rate cannot apply to, or limitations of how much area a development can designate toward the blended rate. For example, a blended rate for a medical office building could include a number of related medical uses which typically co-locate, but could exclude pharmacies over a certain size.

The shared parking table provides greater granularity of parking demand throughout the day compared to a blanket blended rate.

Examples

Provisions for shared parking are included in some form in zoning by-laws of a number of Canadian municipalities. Vancouver, Hamilton, Mississauga, and Toronto, all allow reductions in required parking for mixed use developments with the potential for shared parking.

Of the comparable municipalities, only the City of Burlington has a shared parking framework that applies to its mixed use and downtown zones. The City of Kitchener provides a multi-unit parking rate in their latest Zoning By-law.

3.3.6 Design Standards

Given the expansive areas developers in Guelph devote to space for parking, their design can have a profound impact on the City's environment, both visually and functionally. The primary objectives of parking design standards include:

- Mitigate urban heat island effect;
- Integrate as best as possible with existing or planned urban context;
- Enhance / maintain green spaces;
- Improve public realm safety, comfort, and connectivity;
- Manage storm-water run-off; and,
- Encourage use of recycled and environmentally sensitive materials.

There is no universally ideal solution for designing parking. Rather, the issue often requires careful site-by-site consideration that links with the City's broader urban design strategies.

A summary of best practice parking design elements that will be considered in the development of new standards are included below:

- **Location and Layout** - Parking design should strive to provide safe and convenient pedestrian circulation while minimizing the impact on the adjacent public realm and maximizing space for landscaping.
- **Landscaping** - Landscaping should respect the features and needs of the natural landscape in maximizing aesthetic comfort, shading, and space for stormwater management, with careful consideration of all four seasons.
- **Stormwater Management** - Parking surfaces should minimize the use of impervious surface and create space for low impact stormwater absorption and re-use. This includes special consideration for the top floor of parking structures.
- **Lighting** - Building exteriors should be well-lit, as efficiently as possible, to create the feeling of a safe and comfortable pedestrian environment. As such, the aesthetic and design value of lighting elements is at least as important as their lighting function or ease of maintenance.
- **Barrier-Free Access** - As much as possible, features accommodating the mobility impaired should be integrated into the central functioning of the main access routes, and not added secondarily as an afterthought.

- **Bicycle Circulation and Parking** - Convenient short- and long-term bicycle parking should be provided, which is both secure and protects from harsh weather.

3.3.7 Emerging Trends in Mobility

There are many variables that are changing the way people are moving around cities. Advancements in new technologies and shifts in priorities are enabling these changes and will continue to create new paradigms in human travel. Some of these trends are listed below:

- Younger generations are less likely to get a driver's licence⁶;
- Users are redefining the mobility system through their choices;
- The transportation sharing economy is booming⁷;
- New private sector transportation services are emerging;
- Driverless Cars are on the horizon; and
- As mobility choices increase, the need for parking will decrease.

All of these emerging trends will lead to a transportation ecosystem that is much different than the transportation environment of today. Although it is challenging to accurately forecast the implications of all these changes, it is important to develop parking standards that are context sensitive and have the flexibility apply to future contexts in order to maintain an efficient development approvals process that is supportive of sustainable development.

⁶ General Motors, 2013

⁷ Transportation Sustainability Research Centre (2015)

4 Moving Towards a Geographic-Based Approach

This Section of the Report discusses the concept of location-based parking requirements and how it can be used as a tool to support the growth management goals of the City. It considers where geographic considerations have been implemented in the City's current Zoning By-Law to date and how other municipalities have determined parking standards based on the planned function of areas throughout the communities. It concludes with recommendations on how location-based regulations could be incorporated into the City's Zoning By-Law.

4.1 The Concept of Geographic Based Parking

Geographic-based parking recognizes that parking needs can vary considerably throughout a community and that the regulations and requirements that apply to parking should reflect the specific needs of different areas

For some land uses, there is little variation across different areas of a community in terms of the amount of parking that may be required, while in others the required parking rates may vary dramatically. Broadly speaking, a geographic-based approach to regulating parking allows established parking requirements to be more responsive to the specific needs in particular areas of the City.

Geographic-based parking concepts can apply not only to minimum parking rates in an area but also to the existence of potential maximum parking rates. In some community zones, like the downtown core and major transit station areas, implementing parking maximums support transit- and pedestrian-oriented development and encourage transportation demand management strategies. In rural or industrial areas of the community, parking maximums may be unnecessarily restrictive for the kind of land use envisioned by the City and push developers elsewhere.

When moving towards a geographic-based parking system, care must be taken in defining these zones, as the zone in which a development occurs becomes as impactful to what is required to conform to the By-law as the type of development itself. Also, once established, it can be a difficult process to change the areas encompassed by these zones due to the impacts on existing and proposed developments.

4.2 Existing By-law Standards

The City of Guelph's Downtown Zoning By-law introduced location-specific parking standards into the City of Guelph's Zoning By-law. Prior to this, location-based standards were not expressly contemplated by the Zoning By-Law.

4.3 Comparison of Municipal Standards

Multiple municipalities examined through the inter-jurisdictional review have incorporated geographic-based parking policies into their Zoning By-laws.

The City of Waterloo has implemented a parking overlay map into their Zoning By-law in order to establish area-specific parking rates that provide for an as-of-right reduction from the typical parking rates applying to the underlying Zone. Maximum parking rates are also established in certain areas of the City. The Parking Overlay generally corresponds to the geographic area of the City's Urban Growth Centre, Mixed Use Areas, and Intensification Corridors.

The City of Burlington has established a Downtown Parking Exemption Area which contains its own parking-related requirements, such as reducing parking for apartment units and prohibiting surface parking. Burlington's Draft Zoning By-law also includes the establishment of different, typically reduced, parking rates for Intensification Areas outside of the area where the Downtown Exemption applies.

The Town of Oakville's Zoning By-law includes policies which reduce minimum parking requirements for certain uses in specified Mixed Use / Growth Areas of the City in order to promote objectives such as transit, growth management, and design. The City of Kitchener has taken a similar approach and eliminated or reduced minimum parking requirements for certain developments and land uses within the Urban Growth Centre Zones and has established different rates for mixed use areas and other areas of the City.

4.4 Recommendations

Several of the municipalities examined in the inter-jurisdictional review in this Report have introduced zoning regulations specifically targeting their downtowns / urban growth centres. This is consistent with several other national and international communities who are moving towards a geographic-based approach to regulating parking.

Through its Official Plan, the City of Guelph has already established priority growth areas where redevelopment and intensification are encouraged. These include the City's Major Transit Station Areas, Intensification Corridors, Community Mixed Use Nodes, and the Urban Growth Centre (Downtown Guelph).

Within these sub-regions, the City's Official Plan directs that alternate parking regulations should be developed in order to support the planned function of these areas as mixed use, transit-supportive, walkable areas. This includes the establishment of reduced parking rates, the establishment of maximum parking rates and the implementation of transportation demand management tools to reduce the overall parking requirements of individual sites and broader geographic areas.

In order to promote growth management, transit use, and design within its Mixed Use Areas and Intensification Corridors, as well as to further align the Zoning By-law with the Official Plan, it is recommended that the City of Guelph integrate a location-based approach into its Zoning By-law.

It is recommended that the City of Guelph establish alternate parking rates for its priority growth areas supplemented by a 'parking overlay map' (similar to that of the City of Waterloo) in its Zoning By-law to identify areas where differential

parking regulations apply which aligns with the boundaries of its priority growth areas as set out in the following Official Plan schedules:

- Schedule 1 (Growth Plan Elements) of the Official Plan identifies elements within the City of Guelph where location-based parking zoning regulations should apply, such as Major Transit Station areas, Intensification Corridors, Community Mixed Use Nodes, and the Urban Growth Centre (Downtown Guelph). Schedule 1 is displayed in Exhibit 4-1.
- Schedule 2 (Land Use Plan) identifies Mixed Use Corridors and Community Mixed Use Centres which generally correspond with the Intensification Corridors and Community Mixed Use Nodes identified in Schedule 1.
- As displayed in Exhibit 4-2, these land use designations may be used to inform where parking rates may be altered within the City.

Specifically, we recommend that in addition to City-wide standards for parking that the City develop alternate regulations for its Mixed Use Areas, which include Intensification Corridors, Mixed Use Corridors and Community Mixed Use Centres. We note that alternate regulations have already been developed for the Downtown Area, which is identified as a “Major Transit Station Area”.

In accordance with this proposed geographic-based parking structure, this Report makes various recommendations for alternate parking standards, including:

- Reduced minimum parking rates within priority growth areas outside of the downtown, as summarized in Appendix C; and
- Potential maximum parking rates within priority growth areas outside of the downtown, as summarized in Appendix C.

Exhibit 4-1: City of Guelph Official Plan, Schedule 1, Growth Plan Elements

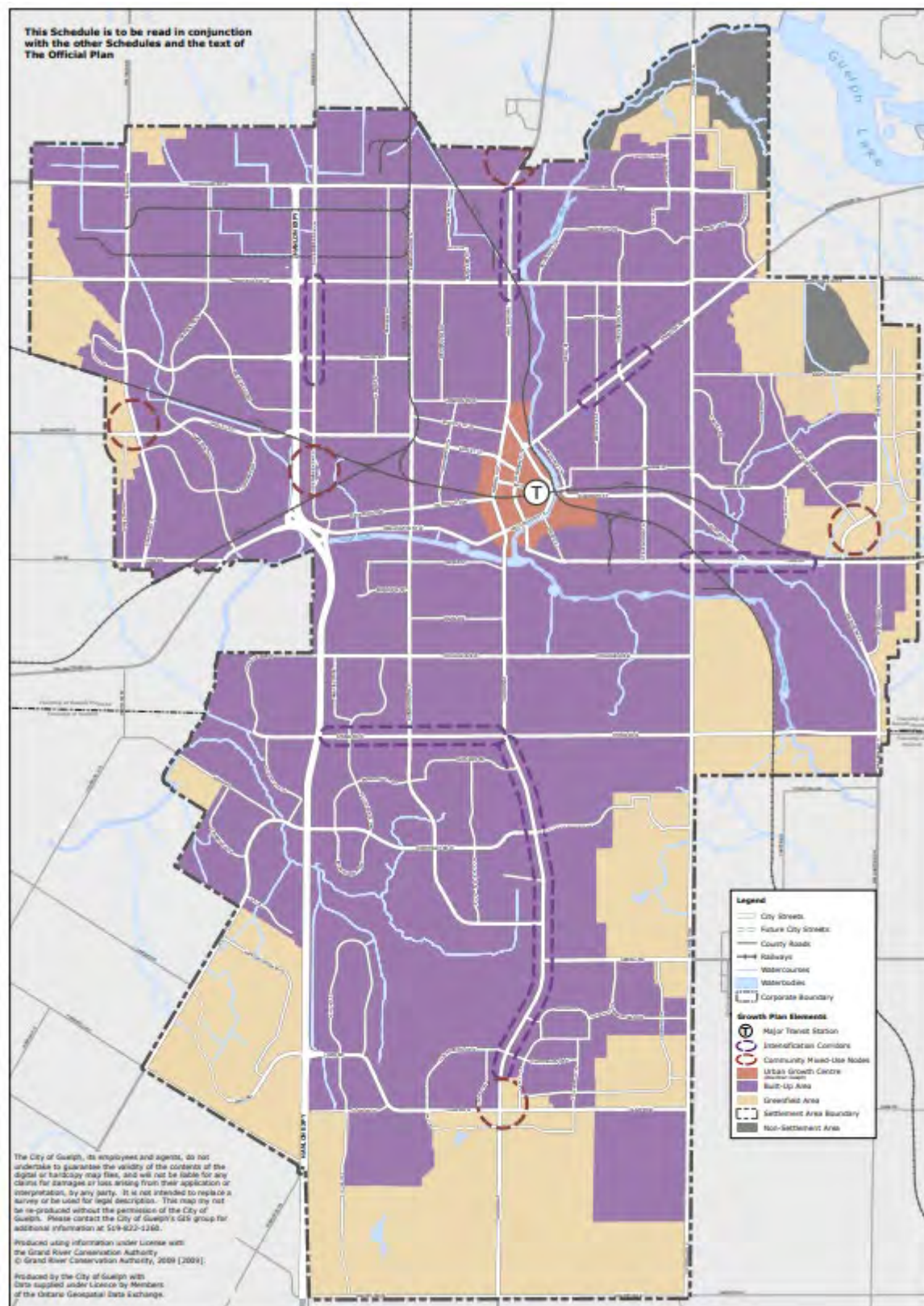
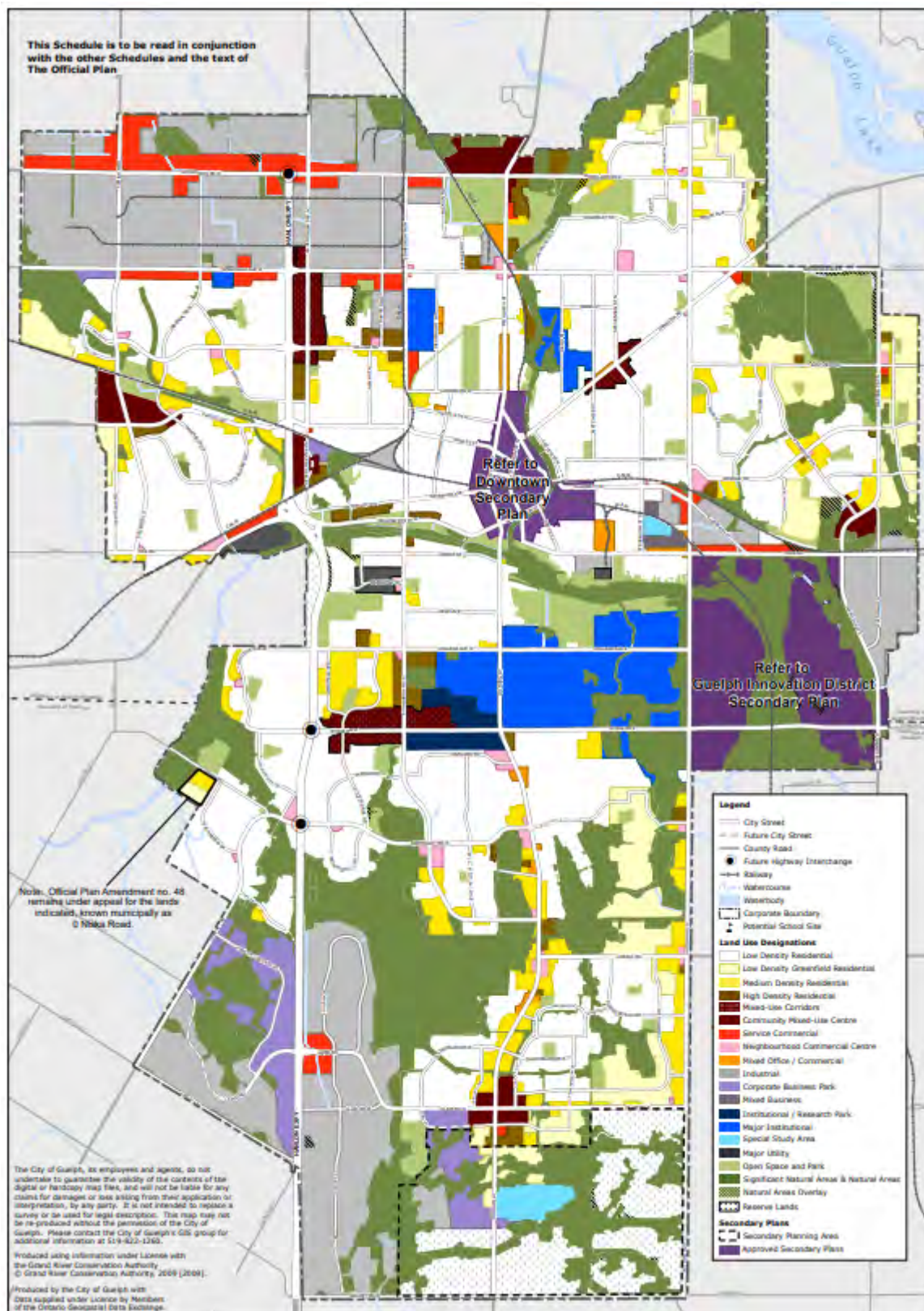


Exhibit 4-2: City of Guelph Official Plan, Schedule 2, Land Use Plan



4.4.1 Maximum Parking Rates

In 2014, Council for the City of Guelph approved the Guelph Parking Master Plan which was prepared by IBI Group “to inform the City’s policy decisions on parking and, specifically, to identify, review and evaluate the parking needs and develop a parking plan to support existing and future development as described in the City’s Downtown Secondary Plan”.

The Parking Master Plan considered various zoning and TDM tools which could be implemented by the City to help manage parking rates. Of note, the Parking Master Plan recommended against the introduction of the use of parking maximums for Downtown Guelph at the time as it was determined that it was unlikely that “developers would provide excessive supply of parking given constrained land areas”.

Since the approval of the Parking Master Plan, the use of parking maximums has become more widespread as an effective tool to prevent the provision of excessive commuter parking facilities and supporting the use of transit and alternate modes of transportation, particularly within priority growth areas. The inter-jurisdictional review conducted in Phase 1 of this project identified that the Cities of Waterloo, Kitchener and Oakville have all adopted parking maximums in priority growth areas of the respective communities.

Consistent with the approaches taken by comparable municipalities and in conformity with the direction of the City’s in-effect Official Plan, it is now recommended that parking maximums be considered and implemented within the City’s priority growth areas. Combined with the proposed reduced parking minimums, these recommended parking maximums will help ensure that development within the City’s priority growth areas will be transit-supportive and not have an oversupply of parking. We also recommend that the City implement maximum parking rates for its downtown. While this Report does not make recommendations with regards to parking rates in the downtown, it is recommended that the City consider applying the recommended maximum parking rates for priority growth areas to its downtown until such time as further analysis is undertaken to establish alternate maximum rates for the area.

While reduced parking minimum and parking maximums are now being recommended for the City’s priority growth areas, at this time they are not being recommended City-wide as parking demand is higher in areas where transit service is not as well supported. As the City continues to grow and the use and level of transit service rises, it is recommended that the City re-visit the opportunity to establish parking maximums City-wide.

5 Residential Parking Rates

This Section of the Report discusses the City of Guelph's existing residential parking rates and provides an overview of observed off-street parking demand which was surveyed in Phase 1 of this study. This Section also considers the residential parking rates of comparable municipalities and makes various recommendations where updates to the City's existing standards should be considered.

Note that recommended rates are based on uses within the existing Zoning By-law. These uses may be deleted or consolidated through the City of Guelph's currently ongoing Zoning By-law review. As a result, not all recommended rates may be relevant in the new Zoning By-law.

5.1 Existing Residential By-law Standards

It is common for Zoning By-laws to set out separate parking requirements for both residents and visitors in residential land uses to reflect user-specific parking needs. The existing resident and visitor rates are summarized in Sections 5.1.1 and 5.1.2 below.

5.1.1 Residential Parking Requirements

Section 4.13.4.1 of the Zoning By-law sets out minimum parking space requirements for typical residential uses. These minimum parking space requirements are summarized in Exhibit 5-1.

Exhibit 5-1: Required Parking Spaces - Residential Uses

Type of Use or Building	Minimum Required Parking Spaces
Apartment Building	For the first 20 units: 1.5 per unit, for each unit in excess of 20: 1.25 per unit (except for in the R.4C zone, which requires 1 per unit)
Bed and Breakfast Establishment	1 per guest room and 1 for the proprietor
Group Home	1 per building plus 1 for staff
Lodging House Type 1	1 per building plus 1 per 3 lodging units
Nursing Home	1 per 3 beds
Semi-Detached / Duplex Dwelling	1 per unit (set back 6 metres, functionally providing a second parking space)
Semi-Detached Dwelling	1 per unit (set back 6 metres, functionally providing a second parking space)
Semi-Detached Dwelling with an Accessory Apartment	A total of 3 parking spaces
Single Detached Dwelling	1 per unit (set back 6 metres, functionally providing a second parking space)
Single Detached Dwelling with an Accessory Apartment	A total of 3 parking spaces
Townhouse	1 per unit
Tourist Home	1 per building plus 1 per guest room

5.1.2 Visitor Parking Requirements

Section 4.13.6 of the Zoning By-law establishes the requirement for the provision of visitor parking in certain residential zones (R.3A or R4 Zone). In these zones, in addition to the parking spaces required to satisfy the residential parking requirements, a minimum of 20% of the calculated total required number of parking spaces must be reserved for the use of visitors to a residential building. This Section also provides that visitor parking spaces shall be provided above grade and demarcated for visitor parking use.

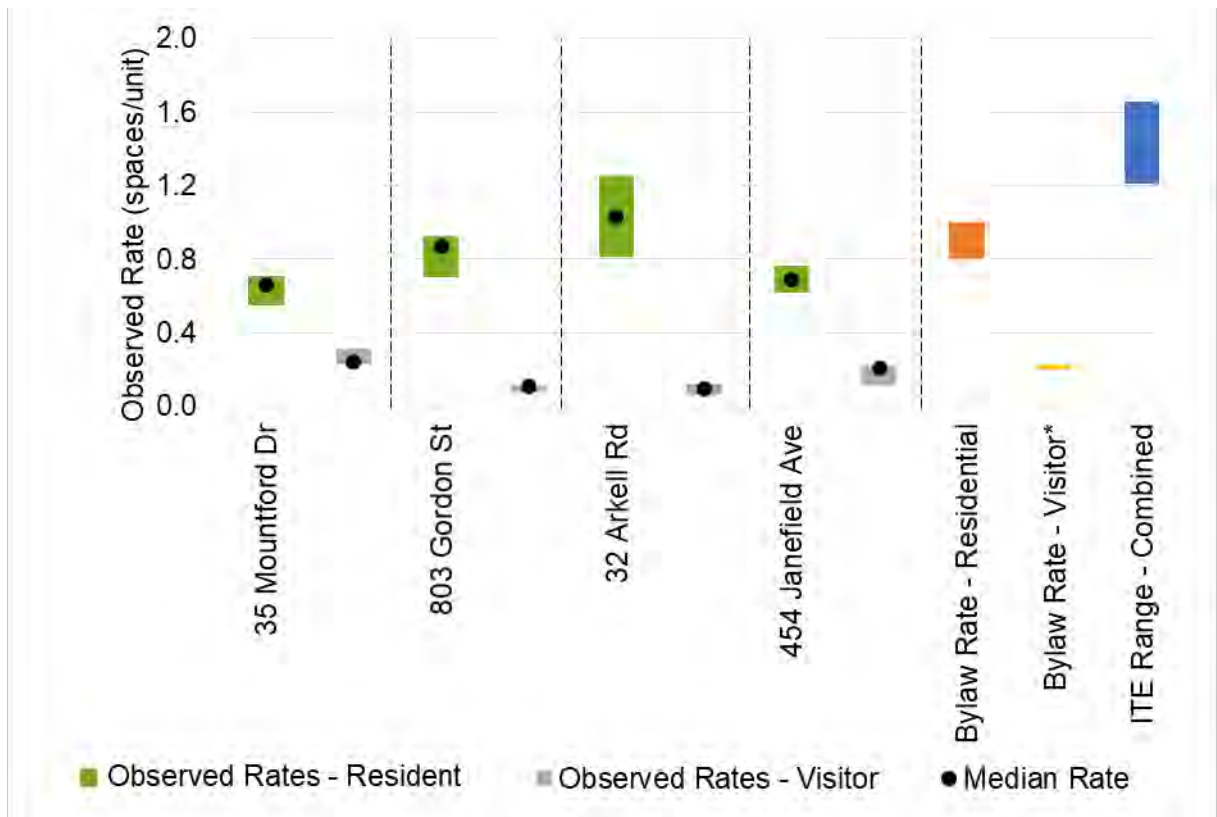
5.2 Off-Street Parking Demand

As part of the off-street parking demand survey conducted during Phase 1 of this study, a total of 60 spot counts were conducted at 7 residential sites in Guelph. IBI Group survey staff differentiated between residential and visitor parking spaces, where signage was observed during the spot counts.

The surveys were conducted on Friday evening between 8:00 PM and 11:00 PM and on Saturday morning between 8:00 AM and 10:00 AM. Half the surveyed properties experienced peak parking demand after 10:00 PM on Friday evening while the other half had peak parking demand before 9:00 AM on Saturday morning.

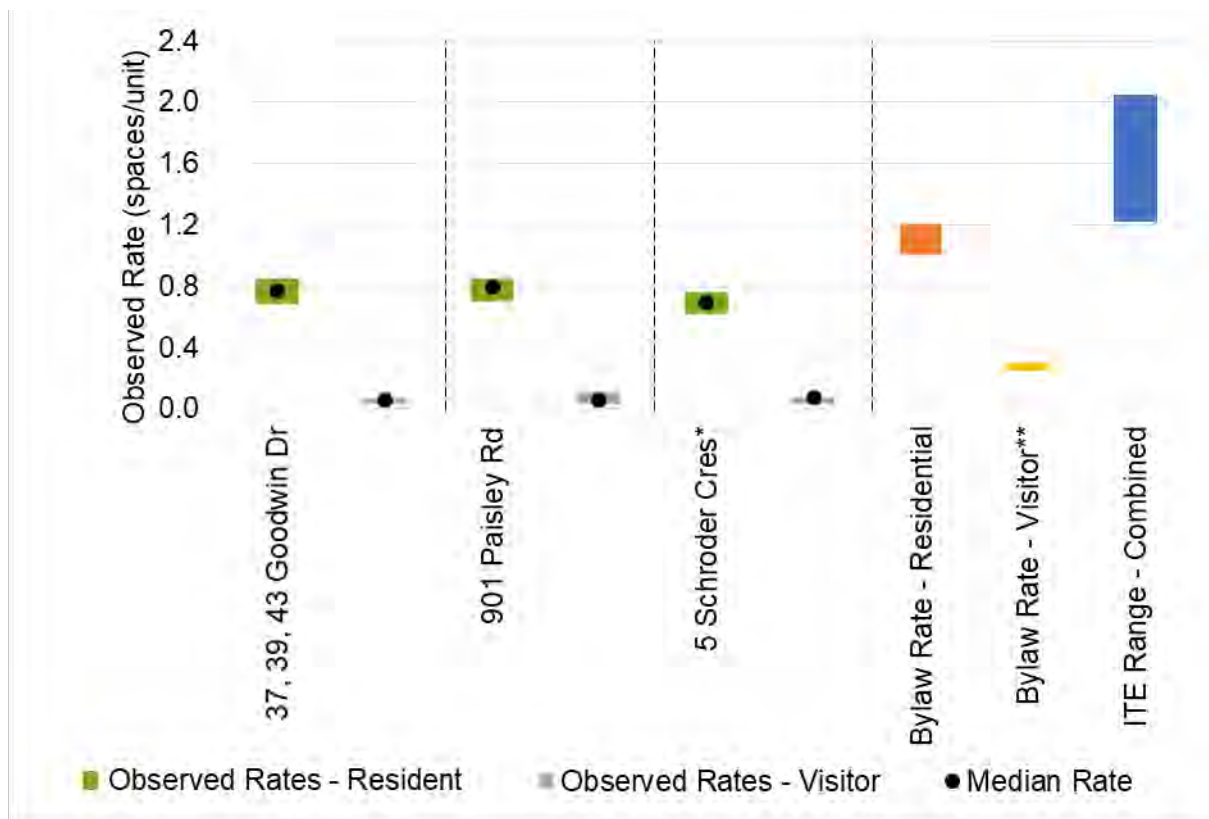
Exhibit 5-2 and Exhibit 5-3 show the observed parking rates for the surveyed townhouses and apartments, respectively. The first green bar for each property shows the residential demand, and the grey bars show visitor demand. The blue bar shows the rate shown in the ITE Parking Generation Manual, which combines the observed residential and visitor parking. Additional details and full results of the survey can be found in Appendix A.

Exhibit 5-2: Observed Townhouse Parking Demand



* The Zoning By-Law visitor parking rate is 20% of the total required residential parking rate.

Exhibit 5-3: Observed Apartment Parking Demand



*During the Friday evening survey at 5 Schroder Crescent, the surveyor did not differentiate visitor parking from residential parking. To account for this, the ratio between visitors parking to total parking observed during the Saturday count was applied to the weekday counts to estimate visitor occupancy.

** The Zoning By-Law visitor parking rate is 20% of the total required residential parking rate.

Based on Exhibit 5-2 and Exhibit 5-3, it can be seen that residential and visitor parking demand was fairly consistent between all surveyed residential buildings of the same land use. Median parking rates for townhouses ranged between 0.8 and 1.0 spaces per unit, while median parking rates for apartments were approximately 0.8 spaces per unit. The resident and visitor parking rates prescribed in the Zoning By-law are slightly higher than the observed parking demand for both surveyed land uses.

Developers in the GTA are looking at areas with high transit accessibility and walkability to attract potential buyers or tenants. In addition, residential land parcels that are well served by transportation facilities may allow the developer to provide fewer parking spaces, thereby saving on development costs. A common trend in Toronto condo buildings is the provision of unbundled parking spaces, which result in owners purchasing parking spaces only if they need it. These trends all help to reduce the parking demand in residential buildings.

5.3 Comparison of Municipal Standards

Appendix B of this Report contains a table summarizing the residential parking rates of the City of Guelph and the five comparable municipalities. The following subsections discuss existing residential parking rate requirements in the City of Guelph in relation to the comparable municipalities.

5.3.1 Townhouses

Applicable City of Guelph Zoning By-law Definitions:

"Townhouse" means a Building that is divided vertically into 3 or more separate Dwelling Units and includes a row house.

- (i) "Cluster Townhouse" means a Townhouse situated on a Lot in such a way that at least 1 Dwelling Unit does not have legal frontage on a public Street;
- (ii) "Street Townhouse" means a Townhouse where each Dwelling Unit is located on a separate Lot and has legal frontage on a public Street; and,
- (iii) "Stacked Townhouse" means 1 Building or Structure containing 2 Townhouses divided horizontally: one atop the other.

For Cluster and Stacked Townhouses, the City of Guelph currently requires a provision of 1 space per unit in addition to 0.2 visitor spaces. Generally, this standard is similar to that of the comparable municipalities, with the exception of the City of St. Catharines who also only requires 1 space per unit. The City of Kitchener requires different parking rates for townhouse units depending on the number of units proposed (1.15 per unit (includes visitor parking) for 5 to 81 units and 1.1 per unit (includes visitor parking) for more than 81 units).

The City of Waterloo generally requires a minimum parking ratio of the 1 space per unit, plus 0.10 to 0.15 visitor parking spaces per unit (freehold townhouses require a total of 1.4 parking spaces per unit). However, the parking rate for townhouse uses varies depending on whether or not a subject property is located within an area identified on the Zoning By-law's "Parking Overlay" schedule.

For Street Townhouses, the City's R.3 zone requires 1 space per unit, which is to be setback 6 metres from the street. This setback functionally requires 2 parking spaces per unit. This parking rate requirement for Street Townhouses is consistent with the rates of all comparable municipalities. The Cities of Oakville and Burlington both require 2 spaces per unit, which matches Guelph's standards for Street Townhouses once setbacks are considered.

5.3.2 Apartment Buildings

Applicable Zoning By-law Definitions:

"Apartment Building" means a Building consisting of 3 or more Dwelling Units, where access to each unit is obtained through a common entrance or entrances from the Street level and subsequently through a common hall or halls, but does not include a Maisonette Building.

For Apartments, there is a great degree of variation between City of Guelph's current Zoning By-law Standards and those of comparable municipalities. Minimum parking rate requirements of the City of Guelph and comparable municipalities are summarized in Exhibit 5-4 below.

Exhibit 5-4: Parking Rates for Comparable Municipalities

Municipality	Parking Rates for Apartment Uses
Guelph	Up to 20 units: 1.5 per unit. Greater than 20 units: 1.25 per unit. Downtown: 1 per unit plus 0.05 visitor space per unit
Burlington	1.25 per one-bedroom unit. 1.50 per two-bedroom unit. 1.75 per three or more bedrooms. 0.35 visitor spaces per unit. 1.25 spaces per unit for a mixed use building.
Kitchener	No minimum requirement in Urban Growth Centre. Generally, 1.15 per unit (includes visitor parking) for 5 to 81 units. 1.1 per unit (includes visitor parking) for more than 81 units.
Oakville	1.0 per unit with less than 75.0 s.m. 1.5 per dwelling for units larger in size.
St. Catharines	1.25 per unit in a residential only building. 1 per unit in a mixed use building.
Waterloo	0.7 to 1.5 per unit. Varies depending on location and zoning of site, and whether located within area delineated by "Parking Overlay" schedule.

The City of Guelph currently requires a minimum of 1.5 parking spaces for apartment buildings with up to 20 units. For each additional unit beyond 20 units, the current Zoning By-law requires the minimum provision of 1.25 spaces per unit.

The City of Kitchener's parking standards include no minimum parking requirement for multiple residential buildings within the Urban Growth Centre zones and establish a maximum parking rate of 1.0 space per unit for lands within this area. In areas outside the Urban Growth Centre and mixed use zones, the Zoning By-law generally requires 1 parking space per unit plus 0.1 to 0.15 visitor parking spaces per unit.

The City of Waterloo has adopted an alternative approach whereby parking rates for apartment uses vary based upon the location of properties throughout the City. Accordingly, the parking rates vary from 0.7 to 1.5 per unit (including visitor parking), depending on location and zoning of the site, and whether located within the area delineated by "Parking Overlay" schedule. Apartment development within a student-oriented neighbourhood (i.e., Northdale) located in proximity to the University, has lower parking standards which are tied to the number of bedrooms provided within a development.

The Cities of Oakville and Burlington have both established parking rates for apartment uses, based on the size of the apartment unit itself. In the case of the City of Burlington, the number of parking spaces is tied to the number of bedrooms in an apartment unit. In the Town of Oakville, the parking requirement is tied to the overall floor area of the unit.

5.3.3 Single-Detached, Semi-Detached Dwellings, and Duplex Dwellings

Applicable City of Guelph Zoning By-law Definitions:

"Single Detached Dwelling" means a free-standing, separate, detached Building consisting of 1 Dwelling Unit.

"Semi-Detached Dwelling" means a Building that is divided vertically into 2 separate Dwelling Units.

"Duplex Dwelling" means a Building that is divided horizontally into 2 separate Dwelling Units.

The Zoning By-law provides that parking is provided off-street, in a private driveway, a private garage, or both. Section 4.13.1 of the Zoning By-law provides that "every off-street Parking Area shall be located on the same Lot as the Use requiring the parking and shall not infringe on or obstruct any required Loading Spaces." The Zoning By-law provides additional locational criteria for various different zone categories, as summarized below.

Exhibit 5-5: Residential Parking Locational Criteria, City of Guelph Zoning By-law

Zone	Parking Area Locational Requirement
R.1, R.2, R.3B	The required parking shall be provided with a minimum of 6.0 metres from the street line and to the rear of the front wall of the main building
R.3A, R4	Parking may be provided in the side or rear yard provided that no parking space is within 3.0 metres of any lot line. Only visitor parking may be located in the front or exterior yard provided that it is to the rear of the required front or exterior yard. Must not be located within 3.0 metres of a building entrance or any window of a habitable room

For single detached and semi-detached dwellings, the City of Guelph typically requires a minimum of 1 parking space per unit. This standard matches the requirements of the Cities of Kitchener, St. Catharines, and Waterloo who also require 1 parking space per unit. The Cities of Burlington and Oakville require a higher standard of 2 parking spaces per unit.

For duplexes, the City of Guelph's Zoning By-law currently requires 1 space per dwelling unit or a total of 2 spaces. All comparable municipalities require this same standard, save for the Town of Oakville who require 2 spaces per unit, or a total of 4 spaces.

5.3.4 Visitor Parking

As noted, within the R.3A or R4 Zone, the City of Guelph's Zoning By-Law requires that a minimum of 20% of the calculated total required number of parking spaces must be reserved provided for the use of visitors to a residential building. This Section also provides that visitor parking spaces shall be provided above grade and demarcated for visitor parking use. The City of Guelph's Downtown Zoning By-law requires that a minimum of 0.05 parking spaces per dwelling unit (in addition to existing requirements) must be provided for visitors for apartment buildings, cluster townhouses, or mixed use buildings with more than 20 dwelling units

In the City of Burlington, 0.5 visitor parking spaces per unit are required to be provided for detached, semi-detached, duplex, and triplex dwellings on a parcel of land fronting onto a common element condominium road. For townhouse dwellings, fourplex dwellings, cluster homes, and apartment buildings, 0.5 visitor spaces per unit must be provided. For stacked townhouse dwellings and back-to-back townhouse dwellings, 0.35 visitor spaces must be provided. Retirement homes are required to provide 0.25 visitor spaces per unit.

The Town of Oakville's Zoning By-law requires that 25% of the required parking spaces are designated as visitor parking spaces. Within Mixed Use Zones, where at least five parking spaces are required, 20% of the required parking spaces should be designated as visitor parking spaces. Apartment buildings and townhouse dwellings only require visitor parking spaces in a condominium. These spaces should be located on a parcel of land tied to a common element. Barrier-free visitor parking spaces are only additionally required for apartment dwellings, dormitories, and stacked townhouse dwellings.

The City of Kitchener also applies different visitor parking rates based on zoning. In Urban Growth Centre Zones, visitor parking spaces are not required. In Mixed Use Zones, 0.1 visitor parking spaces per unit are required where there are five or more dwellings on the lot. In all other Zones, between 0.1 and 0.15 visitor parking spaces must be provided depending on the number of units on the lot. Parking maximums within the City of Kitchener include required visitor parking spaces. Up to 50% of barrier-free parking spaces for residential uses may be counted towards the visitor parking space requirements. On a lot where non-residential uses on the same lot qualify for the multi-unit parking rate, visitor parking spaces are not required.

In the City of Waterloo, visitor parking rates vary by zone and by use. The requirement for 0.1 visitor parking spaces per unit is most common within this Zoning By-law.

Contrary to the approach taken within the other comparable municipalities, the City of St. Catharines only sets out visitor parking requirements for areas with special provisions.

5.4 Recommendations

Recommended residential parking rates within the City of Guelph are summarized below. These recommendations are based not only on the observed demand from the off-street parking survey, but also on the findings of the land use policy review, inter-jurisdictional best practices, and consideration of ITE residential parking rates.

Note that recommended rates are based on uses within the existing Zoning By-law. These uses may be deleted or consolidated through the City of Guelph's currently ongoing Zoning By-law review. As a result, not all recommended rates may be relevant in the new Zoning By-law.

Additionally, some of the uses recommended minimum parking rates below may not be permitted within mixed use areas (Intensification Corridors and Community Mixed Use Nodes) in the new Zoning By-law. As such, these recommended minimum parking rates may not be relevant in the future.

5.4.1 Townhouse Dwellings

For Street Townhouses, the Zoning By-Law requires one parking space per unit (no visitor parking requirement), which is required to be set back a minimum of 6 metres from the street. This 6-metre setback functionally establishes sufficient space for the parking of two cars per street townhouse unit. These rate requirements for street townhouse units are consistent with the rates of comparable municipalities, all of which require one parking space per unit.

For Stacked, Back-to-Back and Cluster Townhouses, the City of Guelph currently requires one parking space per townhouse unit plus 0.2 parking spaces per unit for visitor parking, which is slightly lower than the average requirement for the comparable municipalities examined in the inter-jurisdictional review which is typically 1.25 to 1.5 spaces per unit, including visitor parking. The rates presented in the ITE Parking Generation Manual range from 1.21 to 1.66 spaces per unit, including visitor parking depending on the day of the week.

As part of the parking demand survey work undertaken in Phase 1 of this study, four townhouse developments were reviewed and demonstrated that at these sites, residential and visitor parking demand was fairly closely aligned with existing Zoning By-law requirement as shown in Exhibit 5-2. As the existing parking rates closely mirror those of comparable municipalities and given that the parking demand review demonstrated the adequacy of parking at the sites reviewed, it is not recommended that this rate be adjusted city-wide.

However, it is recommended that separate parking rates are established for street townhouses which do not require additional parking spaces for visitor parking, and cluster townhouses and stacked townhouses which do.

Recommended rates for street townhouse dwellings are shown in Exhibit 5-6. Recommended rates for stacked townhouses and cluster townhouses, which include visitor parking rates, are shown in Exhibit 5-7.

Exhibit 5-6: Existing and Proposed Parking Rates for Street Townhouses

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Observed Rate	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1.2 space per unit (includes visitor parking)	1 space per unit	1.21 to 1.66 spaces per unit	1 space per unit	1.0 space per unit (includes visitor parking)	1 space per unit	1 space per unit

Exhibit 5-7: Recommended Parking Rates for Cluster, Stacked, and Back-to-Back Townhouses

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Observed Rate	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1.2 space per unit (includes visitor parking)	1.42 spaces per unit to 1.51 spaces per unit	1.21 to 1.66 spaces per unit	1 space per unit, plus 0.05 visitor parking spaces per dwelling unit (for developments with over 20 units)	1 space per unit includes visitor parking	1 space per unit, plus 0.2 visitor parking spaces per dwelling unit	1 space per unit, plus 0.2 visitor parking spaces per unit

In addition to these minimum parking rate requirements, the City should consider the establishment of maximum parking rates for townhouses within the City's mixed use areas in order to support land use planning objectives. As an example, the City of Kitchener sets its maximum parking space rate (including visitor parking) for multiple residential buildings at between 1 and 1.4 spaces per dwelling, depending on the zoning of the site. Additional information on and examples of maximum parking rates can be found in Section 3.3.2.

Proposed maximum rates for street townhouses, cluster townhouses, and stacked townhouses within Mixed Use Areas are set out in Appendix C. For each of these townhouse dwelling types within Mixed Use Areas, we recommend a maximum parking rate of 2 spaces per unit.

5.4.2 Apartment Buildings

The City of Guelph's Zoning By-law currently requires that 1.5 spaces are provided for the first 20 units and 1.25 spaces are provided for each additional

unit over 20 units. The review of the land use planning framework within the City of Guelph indicates that parking rates may be reduced, and flexible parking standards may be implemented as a result of shared parking opportunities, particularly within areas well-served by transit and active transportation infrastructure.

The off-street parking demand review identified apartment buildings as among the land uses with the highest average parking utilization within the City of Guelph. These sites were also found to have consistent parking demand across all of the surveyed sites, which was slightly lower than the rate outlined in the City's existing Zoning By-law.

Each of the municipalities examined in the inter-jurisdictional review used a slightly different formula to calculate parking rates for apartments. The majority of these formulas would produce lower parking space requirements than that which is currently required in the City of Guelph. For example, the City of Waterloo requires apartment buildings to have between 0.7 and 1.25 parking spaces per unit, depending on the location and zoning of the site. The rates are shown in the ITE Parking Generation Manual range from 1.22 to 2.05 spaces per unit, including visitor parking, depending on the day of the week.

As a result of the findings from the land use planning framework review, the off-street parking demand review, and the inter-jurisdictional best practices review, it is recommended that parking rates be slightly lowered and flexible parking standards be supported through the Zoning By-law. Recommended rates are summarized in Exhibit 5-7.

Exhibit 5-8: Existing and Proposed Parking Rates in Apartments

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Observed Rate	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1.5 space per unit for the first 20 units and 1.25 space per unit per unit thereafter	Varies (see Section 5.3 of this Report for analysis)	1.22 to 2.05 spaces per unit (includes visitor parking)	1 space per unit plus 0.05 for visitor parking	0.8 spaces per unit (includes visitor parking)	1 space per unit plus 0.1 spaces per unit for visitor parking	If development contains less than 20 units: 1 space per unit plus 0.25 additional spaces per unit for visitor parking If development contains 20 units or greater: 1 space per unit plus 0.15 additional spaces per unit for visitor parking

Maximum parking rates should be considered for apartment buildings within priority growth areas (Intensification Corridors and Community Mixed Use Nodes). For example, as previously mentioned, the City of Kitchener sets its maximum parking space rate (including visitor parking) for multiple residential buildings at between 1 and 1.4 spaces per dwelling, depending on the zoning of the site. We recommend that a maximum parking rate of 1.5 spaces per unit (inclusive of visitor parking) be established for the City's Mixed Use Areas / Corridors.

Proposed maximum rates for Mixed Use Areas are set out in Appendix C. For apartment units within Mixed Use Areas, we recommend a maximum parking rate of 1.5 (inclusive of visitor parking) spaces per unit.

5.4.3 Single Detached Dwellings, Semi-Detached Dwellings, and Duplex Dwellings

The City of Guelph's current parking rate of 1 space per unit for single detached and semi-detached dwellings is consistent with what is required in the municipalities of the Cities of Kitchener, St. Catharines, and Waterloo. We note that these types of dwellings were not considered as part of the parking demand review. It is not recommended that this rate be adjusted.

The current parking rate for duplex dwellings within the City of Guelph is 1 space per unit or 2 spaces in total. All comparable municipalities reviewed require this same standard, with the exception of the Town of Oakville (2 spaces per unit). We also note that duplexes were not reviewed as part of the parking demand review. It is also not recommended that this rate be adjusted.

Exhibit 5-9 below summarizes the existing parking rates for single detached dwellings, semi-detached dwellings, and duplex dwellings, which are not recommended for adjustment.

Exhibit 5-9: Existing and Proposed Parking Rates for Single Detached, Semi-Detached, and Duplex Dwellings

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
				Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1 space per unit	1.2 spaces per unit	Not applicable	1 space per unit	1 space per unit	1 space per unit

In addition to these proposed parking minimums, proposed maximum rates for Mixed Use Areas have been proposed in Appendix C. For single detached, semi-detached and duplex dwellings within Mixed Use Areas, we recommend a maximum parking rate of 2 spaces per unit.

5.4.4 Other Residential Uses

A summary of recommended rates for other residential uses identified in the City of Guelph's existing Zoning By-law is included in Exhibit 5-10 below. As is shown, all of the existing parking rates for these additional uses are proposed to be maintained, save for the rate for tourist homes in Mixed Use Areas / Intensification Corridors which is recommended to match the rate recently approved by the City for its downtown areas. These recommendations are based on our review of parking rates of comparable municipalities completed as part of the inter-jurisdictional best practices review, the parking rates in the Downtown Zoning By-law, and other direction provided by the City of Guelph's land use policy

Exhibit 5-10: Existing and Proposed Parking Rates for Other Residential Uses

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rates: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Single Detached with an Accessory Apartment	3 spaces total	1 space per unit	Not applicable	1 space per unit	1 space per unit	1 space per unit
Semi-Detached with an Accessory Apartment	3 spaces total	1 space per unit	Not applicable	1 space per unit	1 space per unit	1 space per unit
Tourist Home	1 space per building, plus 1 space per guestroom	Varies	- Not applicable	1 additional parking space	0.75 space per guest room	1 space per building, plus 1 space per guestroom
Nursing Home	1 space per 3 beds	Varies	0.36 to 0.43 spaces per bed (1.08 to 1.29 spaces per 3 beds)	1 space per 3 beds	1 space per 3 beds	1 space per 3 beds
Group Home	1 space per building, plus 1 space per staff	Varies	Not applicable	1 space per building, plus 1 space per staff	1 space per building, plus 1 space per staff	1 space per building, plus 1 space per staff
Bed and Breakfast	1 space per guest room, plus 1 space for the owner	1 space per guestroom	Not applicable	1 additional parking space	1 space per guest room, plus 1 per owner	1 space per guest room, plus 1 per owner
Lodging House Type 1	1 space per building, plus 1 per 3 lodging units	Varies	Not applicable	1 space per building, plus 1 per 3 lodging units	1 space per building, plus 1 per 3 lodging units	1 space per building, plus 1 per 3 lodging units

It is noted that for Single, Semi-Detached, and Townhouse Dwellings with accessory apartments, it is recommended that one parking space be provided for the primary residence and one parking space for the accessory dwelling, consistent with the direction of Bill 108 (*More Homes, More Choices Act, 2019*). Notwithstanding this, it is recommended only one of the two required parking spaces be set back 6 metres from the street line. This will allow tandem parking in single wide driveways, and not generate an obstacle in providing more accessory units throughout the community.

5.4.5 Visitor Parking

It is recommended that the City of Guelph continue implementing a geographic-based approach to the visitor parking requirements prescribed in the Zoning By-law, in order to support transit oriented development within its priority growth areas. While it is important for visitor parking to be provided throughout the City, areas of intensification should focus on promoting land use patterns which are conducive to sustainable modes of travel, such as active transportation and public transit.

For ease of implementation and enforcement, it is recommended that the approach to visitor parking requirements used in the Town of Oakville and the City of Kitchener's Zoning By-laws is adopted in the City of Guelph's Zoning By-law. This approach involves setting visitor parking rates based on zoning. Alternate visitor parking requirements have already been implemented in the Downtown Zoning By-law. It is recommended that the City of Guelph's Zoning By-law implement visitor parking rates which build on the recommendations for geographic-based zoning outlined in Section 4.4 of this Report.

As mentioned in Section 4.4, the City of Guelph's Official Plan has identified Major Transit Station Areas, Intensification Corridors, Community Mixed Use Nodes, and the Urban Growth Centre (Downtown Guelph). The City will be directing redevelopment and intensification within these priority growth areas. The Official Plan further directs that alternate parking regulations are implemented in these areas to promote mixed land uses, walkability, and public transit use. As a result, it is recommended that:

- Alternate visitor parking regulations are developed for Mixed Use Areas, which include Intensification Corridors, Mixed Use Corridors, and Community Mixed Use Centres, in accordance with the recommended rates outlined in Exhibit 5-11 below;
- These visitor parking rates should apply to apartment buildings, cluster townhouses, or mixed use buildings;
- Visitor parking requirements may also vary by the number of dwellings in a residential dwelling, in accordance with the recommended rates outlined in Exhibit 5-11.

Exhibit 5-11: Recommended Visitor Parking Rates

Zoning	Recommended Visitor Parking Rates
Mixed Use Areas	<p>Apartment Buildings: 1 space per unit plus 0.1 spaces per unit for visitor parking</p> <p>Cluster, Back-to-Back, and Stacked Townhouses: 1 space per unit plus 0.2 visitor parking spaces per dwelling unit</p>
All Other Zones	<p>Apartment Buildings: For developments with less than 20 units: 1 space per unit plus 0.25 spaces per unit for visitor parking For developments with 20 units or greater: 1 space per unit plus 0.15 spaces per unit for visitor parking</p> <p>Cluster, Back-to-Back, and Stacked Townhouses: 1.2 spaces per unit plus 0.2 visitor parking spaces per unit</p>

Note that it is recommended that visitor parking be provided in addition to the minimum parking requirements for land uses. Visitor and non-visitor parking rates have been reduced wherever appropriate in the recommendations of this Report, in order to promote sustainability and development patterns supported by applicable land use planning documents, such as the City of Guelph's Official Plan. In order to enable developers to provide adequate parking to ensure compatibility with nearby land uses, it is recommended that the required visitor parking spaces are not removed from the required non-visitor parking spaces.

5.4.6 Affordable Housing Strategy

In May of 2017, the City of Guelph approved the Affordable Housing Strategy, which aims to promote consistency with the Provincial Policy Statement (2014) and conformity with the Growth Plan for the Greater Golden Horseshoe (2006). Building on the City's existing Ten-Year Housing and Homelessness Plan, this Strategy intends to explore policy drivers, tools, and incentives which may contribute to an increase in the provision of affordable housing units within the City of Guelph.

Note that the Affordable Housing Strategy uses the definition of affordable housing identified in the PPS (2014). The PPS defines affordable housing as:

"In the case of ownership housing, the least expensive of: housing for which the purchase price results in annual accommodation costs which do not exceed 30 percent gross annual household income for low and moderate-income households; or housing for which the purchase price is at least 10% below the average purchase price of a resale unit in the regional market area. In the case of rental housing, the least expensive of: a unit for which the rent does not exceed 30% of gross annual household income for low and moderate-income households; or a unit for which the rent is at or below the average market rent of a unit in the regional market area."

The Affordable Housing Strategy recommends various strategic actions as part of the implementation framework for the affordable housing objectives and policies set out in the City of Guelph's Official Plan. Several of these actions are related to planning regulations and processes.

One of these strategic actions is "that the City's comprehensive review of its Zoning By-law considers modifications to parking requirements for multiple residential properties and mixed use developments that include affordable residential units to reduce requirements where appropriate."

While this policy is not commonly found within Zoning By-laws in Ontario, the City of Greater Sudbury's Zoning By-law allows for a 25% reduction in parking requirements for apartment buildings that are subject to an affordable housing

agreement with the City of Greater Sudbury. This reduction is applicable in all Zones except for the City of Greater Sudbury's Downtown Commercial Zone.

It is recommended that the City of Guelph also explore the possibility of allowing for a reduction in parking requirements in exchange for the provision of affordable housing units. However, reducing barriers (i.e., lessening parking requirements, waiving planning application fees) as part of affordable housing agreements is often undertaken on an application-by-application basis such as through a site specific Zoning By-Law Amendment or Minor Variance application to ensure that sufficient parking remains available for affordable housing developments.

The Affordable Housing Strategy further recommends that "unnecessary Zoning By-law barriers" be eliminated through the City's Comprehensive Review process. We recommend that geographic-based parking regulations are introduced into the City of Guelph's Zoning By-law. These regulations will promote a range and mix of housing within the City of Guelph by ensuring that developments are compatible with their surrounding environments while not creating unnecessary constraints on affordable housing. Development within areas of intensification within the City where public transit is available can provide less parking while maintaining compatibility with their surrounding environments. Detailed recommendations for geographic-based parking policies may be found in Section 5.5 of this Report.

We further recommend that TDM measures are implemented into the City of Guelph's Zoning By-law, including carshare, unbundled parking, and off-site parking policies. These tools aim to shift travel patterns within the City of Guelph towards more sustainable, affordable, and equitable forms of travel, such as active transportation and public transit. Reducing vehicle demand on roads allows parking demand to be managed. As parking imposes a significant cost on development, it is expected that these tools will help to improve the range and mix of housing supported throughout the City. Detailed recommendations for TDM measures which may be incorporated into the City of Guelph's Zoning By-law may be found in Section 19 of this Report.

6 Commercial Parking Rates

This Section of the Report discusses the City of Guelph's existing commercial parking rates and provides an overview of observed off-street parking demand which was conducted in Phase 1 of this study. This Section also considers the commercial parking rates of comparable municipalities and makes various recommendations where updates to City's existing standards should be considered.

Note that recommended rates are based on uses within the existing Zoning By-law. These uses may be deleted or consolidated through the City of Guelph's currently ongoing Zoning By-law review. As a result, not all recommended rates may be relevant in the new Zoning By-law.

6.1 Existing Commercial By-law Standards

Sections 4.13.4.1 and 4.13.4.2 of the Zoning By-law set out minimum parking space requirements for various shopping centres (malls) and standard commercial land uses. These minimum parking space requirements are summarized in Exhibit 6-1.

Exhibit 6-1: Required Parking Spaces - Non-Residential Uses

Type of Use or Building	Minimum Required Parking Spaces
Neighbourhood Commercial Shopping Centre (NC Zone)	1 per 18 s.m. GFA (5.5 per 100 s.m.)
Community Commercial Shopping Centre	1 per 18 s.m. GFA (5.5 per 100 s.m.)
Regional Commercial Shopping Centre (RC Zone)	1 per 20 s.m. GFA (5 per 100 s.m.)
Service Commercial Mall (SC.1 and SC.2 Zones)	1 per 16.5 s.m. GFA (6 per 100 s.m.)
Industrial Mall	1 per 50 s.m. GFA (2 per 100 s.m.) up to 1,000 s.m. GFA, 1 per 100 s.m. GFA between 1,000 s.m. GFA and 5,000 s.m. GFA, and 1 per 150 s.m. GFA (0.67 per 100 s.m.) over 5,000 s.m. GFA
Office	1 per 33 s.m. GFA (3 per 100 s.m.)
Retail Establishment	1 per 16.5 s.m. GFA (6 per 100 s.m.)
Restaurant / Tavern	1 per 7.5 s.m. GFA (5.5 per 100 s.m.)
Restaurant (Take-out)	1 per 9 s.m. GFA (13 per 100 s.m.)
Building Supply (Interior Retail / Exterior Retail)	1 per 20 s.m. GFA (5 per 100 s.m.) for building, 1 per 50 s.m. GFA (2 per 100 s.m.) for outdoor sales and display area
Interior Warehouse	1 per 50 s.m. GFA for warehouse area

Type of Use or Building	Minimum Required Parking Spaces
Car Wash (Manual / Automatic)	2 per bay plus 5 waiting spaces per bay, 5 per bay plus 15 waiting spaces per pay
Catering Service	1 per 50 s.m. GFA (2 per 100 s.m.)
Cleaning Establishment	1 per 50 s.m. GFA (2 per 100 s.m.)
Commercial Entertainment	1 per 5 seats or 1 per 5 s.m. GFA (20 per 100 s.m.), whichever is greater
Commercial School	1 per 2 staff members plus 1 per 28 s.m. GFA (3.5 per 100 s.m.) classroom floor space
Computer Establishment	1 per 33 s.m. GFA (3 per 100 s.m.)
Construction and Farm Equipment Sales	1 per 33 s.m. GFA (3 per 100 s.m.)
Contractor's Yard	Greater a minimum of 4 per yard or 1 per 50 s.m. GFA (2 per 100 s.m.), whichever is greater
Convenience Store	1 per 16.5 s.m. GFA (6 per 100 s.m.)
Day Care Centre	1 space per 10 children plus 1 space for the facility
Dry Cleaning Centre	1 per 33 s.m. GFA (3 per 100 s.m.)
Factory Sales Outlet	1 per 33 s.m. GFA of the sales area (3 per 100 s.m.)
Financial Establishment	1 per 16.5 s.m. GFA (6 per 100 s.m.)
Garden Centre (Interior Rail / Outdoor Retail)	1 per 20 s.m. GFA (5 per 100 s.m.) for building, 1 per 50 s.m. GFA (2 per 100 s.m.) for outdoor sales and display area
Hardware Store	1 per 20 s.m. GFA (5 per 100 s.m.)
Hotel	1 per guest room plus 1 per 10 s.m. GFA (10 per 100 s.m.) open to the public excluding corridors, lobbies or foyers
Liquor Store	1 per 16.5 s.m. GFA (6 per 100 s.m.)
Manufacturing	1 per 50 s.m. GFA (2 per 100 s.m.) up to 1,000 s.m. GFA, 1 per 100 s.m. GFA up to 5,000 s.m. GFA, 1 per 150 s.m. GFA (0.67 per 100 s.m.) over 5,000 s.m. GFA
Medical Clinic	6 per practitioner or 1 per 15.5 s.m. GFA (6.5 per 100 s.m.), whichever is greater
Medical Office	7 per practitioner
Monument Sales Establishment	1 per 50 s.m. GFA (2 per 100 s.m.)
Office Supply	1 per 25 s.m. GFA (4 per 100 s.m.)
Personal Service Establishment	1 per 16.5 s.m. GFA (6 per 100 s.m.)
Print Shop	1 per 50 s.m. GFA (2 per 100 s.m.)
Storage Facility	1 per 50 s.m. GFA (2 per 100 s.m.)
Recreation Centre	1 per 10 s.m. GFA (10 per 100 s.m.), or 1 per 5 seats whichever is greater, except in the case of a golf course which requires 6 per hole, a miniature golf course or driving range which

Type of Use or Building	Minimum Required Parking Spaces
	requires 1 per tee / hole, a bowling alley which requires 1 per 6 lanes plus 1 per 23 s.m. GFA (4.25 per 100 s.m.) used for an accessory use
Repair Service	1 per 33 s.m. GFA (3 per 100 s.m.)
Research Establishment	1 per 33 s.m. GFA (3 per 100 s.m.)
Retail Sales / Service / Rental of Furniture, Appliances	1 per 33 s.m. GFA (3 per 100 s.m.)
Retail Sales / Service / Rental of Electronic and Audio-Visual Equipment	1 per 20 s.m. GFA (5 per 100 s.m.)
Tradesperson's Shop	1 per 40 s.m. GFA (2.25 per 100 s.m.)
Trucking Operation	1 per 50 s.m. GFA (2 per 100 s.m.)
Vehicle Gas Bar	2 at minimum
Vehicle Service Station / Vehicle Repair Shop / Vehicle Specialty Repair Shop	1 per 14 s.m. GFA (7 per 100 s.m.)
Vehicle Sales Establishment / Recreation Vehicles and Equipment Sales	1 per 25 s.m. GFA (4 per 100 s.m.) or a minimum of 2, whichever is greater (parking is exclusive of display and storage areas)
Veterinary Service	1 per 25 s.m. GFA (4 per 100 s.m.)
Warehouse	1 per 200 s.m. GFA (0.5 per 100 s.m.)

6.2 Off-Street Parking Demand

The off-street parking demand survey conducted as part of Phase 1 of this study observed parking demand at 13 commercial sites. These sites were selected in consultation with City of Guelph staff and include offices, medical offices, and other commercial developments. The following Sections summarize the findings of these surveys. Additional details and full results of the survey can be found in Appendix A.

6.2.1 Office

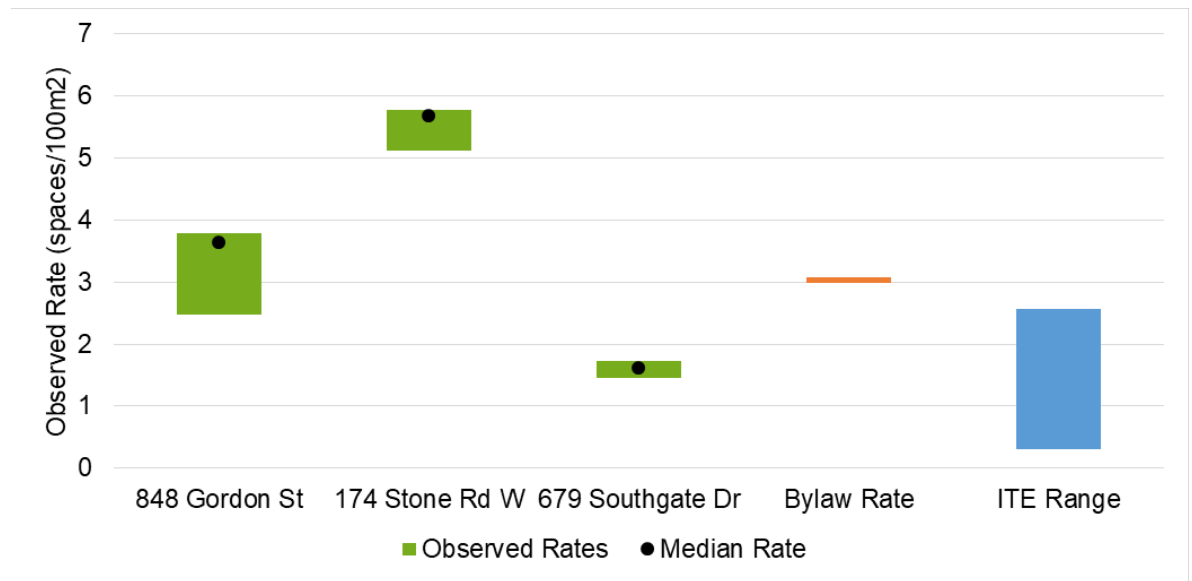
A total of 28 spot counts were conducted at 3 office properties in Guelph. The surveys were primarily conducted on weekdays between 9:30 AM and 4:00 PM, with the exception of a weekend survey that was conducted at 848 Gordon Street, as it had operating hours on the weekend. The observed peak parking demand for all three properties occurred during the weekday around 11:00 AM or shortly after 1:30 PM, which is consistent with the typical parking peaks for office buildings.

To compare the observed parking demand to the rates presented in the Zoning By-law and in the ITE Parking Generation Manual, all parking rates were converted to spaces per 100 m². This was done by dividing the observed parking demand by the GFA of each survey site, which was provided by the City of Guelph, and converting the demand rate to a unit rate of 100 m². Converting

demand rates to this metric makes it easier to compare the observed demand to the prescribed rates.

Exhibit 6-2 shows the observed parking demand for the three offices compared to rates found in the existing City of Guelph Zoning By-law and ITE Parking Generation Manual.

Exhibit 6-2: Observed Office Parking Demand



Based on Exhibit 6-2, the median observed rates for two of the properties is approximately 2 spaces per 100 m² GFA, while the observed rate for 174 Stone Road West was significantly higher at almost 6 spaces per 100 m² GFA. The median observed rate at 174 Stone Road West was almost at the maximum rate, which indicates that the parking demand for the building is consistently near the maximum observed value. One possible explanation for the higher observed parking rate could be that since the building serves the Canadian Food Inspection Agency, the operations of the building may differ from that of a typical office building. There may be lab spaces or more frequent meetings that might increase the building occupant density. It should also be noted that there were 172 parking spaces provided, compared to a by-law required rate of 75 spaces.

Overall, based on the median parking rates of the surveyed sites, the Zoning By-law minimum parking rate is in line with observed demand. Due to the typical peak periods of offices, there is high potential for the benefits of implementing a shared parking solution in cases where offices have a common parking facility with another land use that has higher parking demand in the evenings or weekends.

6.2.2 Medical Office

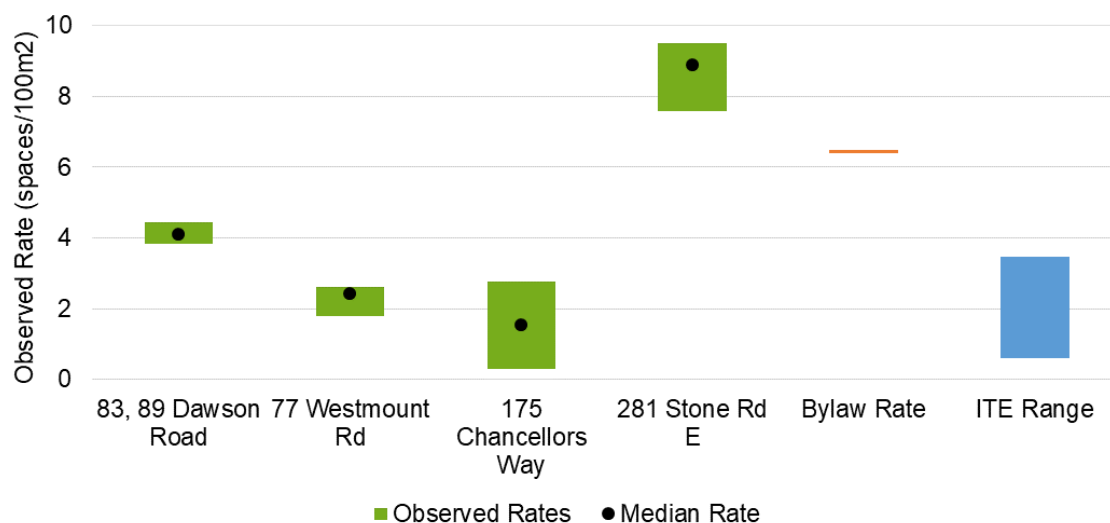
Medical office parking serves employees (i.e. doctors, support staff, etc.) as well as patients and other visitors. Typically, medical offices have higher parking

requirements due to the fact that those visiting medical offices are elderly, disabled, or ill, which makes using alternative modes of transportation more difficult. In addition, patients may not be familiar with the surrounding area and transit options as they may not be frequent visitors.

A total of 32 spot counts were conducted at 4 office properties in Guelph. The surveys were primarily conducted on weekdays between 9:30 AM and 4:00 PM, with the exception of a weekend survey that was conducted at 175 Chancellors Way as it had operating hours on the weekend. The observed peak parking demand for all three properties occurred during the weekday around 11:00 AM or shortly after 2:00 PM, which is consistent with the typical parking peaks for medical office buildings and similar to that of office buildings.

The existing parking requirements for medical offices require a minimum of 7 spaces per practitioner. As the number of practitioners at each site is unknown, the Zoning By-law rates for a medical clinic was used for comparison. The minimum parking rate for a medical clinic is the greater of 6 per practitioner or 1 space per 15.5 m². Exhibit 6-3 shows the observed parking rates collected for each medical office.

Exhibit 6-3: Observed Medical Office Parking Demand



Based on Exhibit 6-3, the observed parking rates for the medical clinics were fairly consistent, with the exception of 281 Stone Road East which experienced significantly higher parking demand than the other sites. Upon further investigation, it was found that there are other land uses nearby (some commercial and residential) that may be spilling over into medical spaces. The spaces for medical uses were signed as such, but there may still be drivers that did not adhere to the signage. The survey data from the other sites and the recommended ITE parking rate indicate that the minimum rate prescribed in the existing Zoning By-law may be higher than necessary.

6.2.3 Commercial

Commercial developments can consist of retail establishments, restaurants, and financial institutions, among others. Typical peak periods for commercial land uses are on starting in the mid-afternoon to evening, and mid-afternoon on weekends.

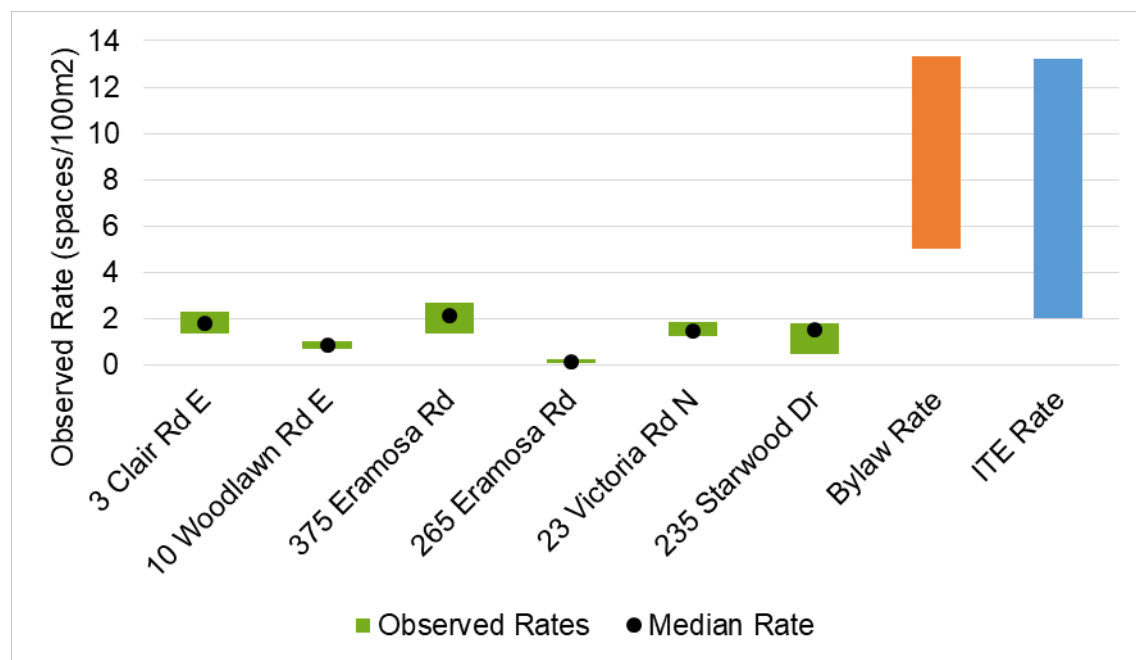
A total of 62 spot counts were conducted at 6 commercial properties in Guelph. The surveys were conducted on weekdays between 1:00 PM and 7:00 PM and on weekends between 2:00 PM and 4:00 PM. Most surveyed sites experienced peak demand on weekdays in the mid-afternoon to early evening period (between 2:00 PM and 6:00 PM), which is consistent with typical peaks for commercial land uses.

While the main objective of the parking demand survey was to capture parking demand at stand-alone land uses, it was also important to observe parking demand for sites of various sizes. Smaller lots were typically used for one land use according to the Guelph Zoning By-law, but the larger lots had a mix of land uses. As such, the range of by-law rates shown below is much larger because it includes all land uses contained in the sites that were surveyed. The land uses surveyed and their respective parking by-law rates are as follows:

- Retail Sales / Service / Rental of Furniture, Appliances: 1 per 33 m² GFA (3.0 per 100 m² GFA);
- Retail Sales / Service / Rental of Electronic and Audio-Visual Equipment: 1 per 20 m² GFA (5.0 per 100 m² GFA);
- Retail Establishment: 1 per 16.5 m² GFA (6.1 per 100 m² GFA);
- Financial Establishment: 1 per 16.5 m² GFA (6.1 per 100 m² GFA); and
- Restaurant / Tavern: 1 per 7.5 m² GFA (13.3 per 100 m² GFA).

Exhibit 6-4 shows the observed parking demand for commercial land uses.

Exhibit 6-4: Observed Commercial Parking Demand



Based on Exhibit 6-4, the observed parking rates for the surveyed commercial properties were fairly consistent. As previously mentioned, the range for by-law parking rates is shown for all land uses contained in all surveyed sites, but the observed parking rates are well below the lowest rate provided in the Zoning By-law.

6.3 Comparison of Municipal Standards

Appendix B contains a table comparing the City of Guelph's existing commercial parking rates to those of the comparable municipalities. The following subsections discuss existing commercial parking rate requirements for several zones in the City of Guelph in relation to the comparable municipalities.

6.3.1 Office

The parking standard established by the City of Guelph's Zoning By-law for office uses is 1 space per 33 s.m. of floor space. This general parking standard closely resembles that of all comparable municipalities, with St. Catharines having the highest standard (1 per 28 s.m. / 3.5 per 100 s.m.) and Burlington and Oakville having the lowest standard (1 space per 35 s.m. / 2.75 per 100 s.m.). However, it is noted that most of the comparable municipalities have area-specific rate reductions for properties located within priority growth areas (i.e., Mixed Use Areas, Urban Growth Centres, and Intensification Corridors).

6.3.2 Retail

The City of Guelph's current retail parking rates (1 space per 16.5 s.m. / 6 per 100 s.m.) are generally higher than those of the comparable municipalities, as shown in Appendix B.

6.3.3 Restaurants

The City of Guelph's parking rate (1 per 7.5 s.m. / 13 per 100 s.m.) is higher than the average rate of the comparable municipalities (1 per 9 s.m. / 11 per 100 s.m.). Unlike Guelph, the City of Burlington and Waterloo requires parking based on the overall number of seats in a restaurant, which is a common approach to regulating parking for restaurants experienced in many other jurisdictions.

6.4 Recommendations

Recommended commercial parking rates within the City of Guelph have been outlined in the subsections below. These recommendations are based not only on the observed demand from the off-street parking survey, but also on the findings of the land use policy review, inter-jurisdictional best practices, and consideration of ITE commercial parking rates.

Note that recommended rates are based on uses within the existing Zoning By-law. These uses may be deleted or consolidated through the City of Guelph's currently ongoing Zoning By-law review. As a result, not all recommended rates may be relevant in the new Zoning By-law.

Additionally, some of the uses recommended minimum parking rates below may not be permitted within mixed use areas (Intensification Corridors and Community Mixed Use Nodes) in the new Zoning By-law. As such, these recommended minimum parking rates may not be relevant in the future.

Well-designed pockets of convenient surface parking for commercial uses should be considered where appropriate, as indicated by the review of the land use planning framework within the City of Guelph. Where surface parking is to be provided, it is recommended that it be directed outside of the public realm, beyond the front yard and exterior yard setbacks preferably at the rear of buildings.

The review of the land use planning framework within the City of Guelph undertaken within Phase 1 of this study indicates that parking rates and flexible parking rates may be implemented as a result of shared parking opportunities. Areas well-served by transit and active transportation infrastructure are particularly suitable for these policies.

6.4.1 Office

The City of Guelph's Zoning By-law currently requires that 1 parking space be provided for every 33 square metres of floor area (3 per 100 s.m.). The current

Zoning By-law's parking rate for offices is similar to the average of what is required in the comparable municipalities included in the inter-jurisdictional review. However, most of the comparable municipalities have area-specific rate reductions for properties located within priority growth areas.

Based on the results of the off-street parking demand review undertaken as part of Phase 1 of this Parking Standards Review, offices were found to be the land use with the highest average parking utilization; however, only one of the surveyed sites surveyed averaged greater than 50% utilization. This may indicate that the results may be slightly skewed as a result of an outlier site with higher utilization rates than typical. Removing the data from 174 Stone Road, the average observed demand for offices is 2.6 spaces per 100 s.m. This review also found that the existing parking rates for offices are currently in line with the demand observed at the survey sites examined.

It was further observed that a reduction in required parking may be considered by the City of Guelph if a supply sharing arrangement is in place, due to the peaking characteristics of parking demand at the surveyed sites. Areas well-served by transit and active transportation are particularly suitable for these policies.

A rate of 2.5 spaces per 100 s.m. is recommended for Mixed Use Areas to align with the rate applied in Downtown Guelph. A rate of 3 spaces per 100 s.m. is recommended for all other areas, which aligns with the average rate in use in comparable municipalities. Existing and recommended parking rates for office uses are summarized in Exhibit 6-5.

Exhibit 6-5: Existing and Proposed Parking Rates for Office Uses

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Observed Rate	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1 space per 33 s.m. (3 spaces per 100 s.m.)	3 spaces per 100 s.m.	0.3 to 2.57 spaces per 100 s.m.	1 space per 67 s.m. (1.5 spaces per 100 s.m.)	2.6 spaces per 100 s.m.	2.5 spaces per 100 s.m.	3 spaces per 100 s.m.

Maximum parking rates for office uses within the City of Guelph should also be considered for implementation into the Zoning By-law within priority growth areas. As an example, the City of Kitchener has set a maximum parking rate for office and office-related uses at between 1 parking space per 25 s.m. of GFA (4 spaces per 100 s.m.) and 1 parking space per 38 s.m. of GFA (2.6 spaces per 100 s.m.), subject to the zoning of the site.

Proposed maximum rates for office uses within Mixed Use Areas are set out in Appendix C. For office uses within Mixed Use Areas, we recommend a maximum parking rate of 5 spaces per 100 s.m., which will provide flexibility for businesses opting to locate within the City of Guelph. The recommended maximum rate of 5.0 spaces per 100 s.m. is not expected to constrain the ability for business employers to provide adequate parking for their employees (as it is approximately twice the observed rate for office uses), nor is it anticipated to detract from investment in the City's priority growth areas.

6.4.2 Medical Office

The City of Guelph's Zoning By-law currently requires that 7 parking spaces be provided per practitioner. Out of the five municipalities included in the inter-jurisdictional review, only three municipalities included parking rates for medical offices in their Zoning By-laws. These parking rates are based on gross floor area occupied by a medical use, as opposed to the existing approach taken in Guelph which is based on a number of practitioners. We have observed that a parking rate based on GFA is more common and should be considered in Guelph's Zoning By-law review. In our opinion, a GFA based approach is more appropriate as it determines parking needs based on the size of a building, as opposed to a number of employees which can change from time to time.

The off-street parking demand review showed that for medical offices, three of the four surveyed sites experienced fairly consistent parking demand. This rate was significantly lower than the parking rate required by the City's Zoning By-law, indicating that the existing parking rate may be in excess of actual demands. Both the survey data and the recommended ITE parking rate suggest that parking rates for medical offices in the Zoning By-law may be reduced. Recommended parking rates for medical office uses are summarized in Exhibit 6-6 below.

Exhibit 6-6: Existing and Proposed Parking Rates for Medical Office Uses

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Observed Rate	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
7 spaces per practitioner	6 spaces per 100 s.m.	0.60 to 3.48 spaces per 100 s.m.	1.5 spaces per 100 s.m.	4.2 spaces per 100 s.m.	3 spaces per 100 s.m.	6 spaces per 100 s.m.

It is further recommended that maximum parking rates be implemented for medical office uses within the City of Guelph within priority growth areas. For example, the City of Kitchener has implemented a maximum parking rate of 1

parking space per 15 square metres of GFA (approximately 6.5 spaces per 100 square metres) and 1 parking space per 23 square metres of GFA (approximately 4.25 per 100 square metres), depending on the zoning of the site.

Proposed maximum rates for Mixed Use Areas are set out in Appendix C. For medical office uses within Mixed Use Areas, we recommend a maximum parking rate of 4 spaces per 100 square metres.

6.4.3 Retail

The City of Guelph's Zoning By-law establishes parking rates for a number of different types of retail establishments including retail sales / rental of furniture and appliances, retail sales / rental of electronics and AV equipment, retail establishment, and financial establishment. While not all of these uses are directly comparable land use classifications in other municipalities, the City of Guelph's current retail parking rate of 1 space per 16.5 square metres (6 spaces per 100 s.m.) is generally higher than the retail parking rates of the comparable municipalities as shown in Appendix B.

Through the off-street parking demand survey, it was found that commercial land uses experienced fairly consistent parking demands, which were significantly lower than the Zoning By-law rates. Exhibit 6-4 shows that the observed parking demand of the six retail commercial sites reviewed averaged an observed rate of between 0.1 to 2.1 spaces per 100 s.m. compared to the existing Zoning By-Law requirements which averaged between 5 and 13 parking spaces per 100 s.m. This demonstrates that the existing retail commercial parking rates are in excess of typical parking demands of these land uses.

As a result of the findings from the inter-jurisdictional review and the off-street parking demand survey, it is recommended that the parking rate for retail uses within the City of Guelph be reduced and shared parking opportunities be explored wherever possible. Recommended parking rates for retail uses are summarized in Exhibit 6-7.

Exhibit 6-7: Existing and Proposed Parking Rates for Retail Uses

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
				Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1 space per 16.5 s.m. (6 per 100 s.m.)	4 spaces per 100 s.m.	2.03 to 3.13 spaces per 100 s.m.	1 space 100 s.m.	2 spaces per 100 s.m.	3 spaces per 100 s.m.

We note that both the recommended rates for “Mixed Use Areas / Intensification Areas” (2 spaces per 100 s.m.) and “Other Areas” (3 spaces per 100 s.m.) exceed the parking demands observed through the parking utilization surveys undertaken in Phase 1 of this study. These recommended rates are aligned with those of comparable municipalities and reflect changing retail shopping patterns increasingly impacted by e-commerce / online shopping.

It is further recommended that maximum parking rates for retail uses be introduced into the Zoning By-law for priority growth areas. The City of Kitchener’s maximum parking rate for services and retail is set at between 1 parking space per 24 square metres of GFA (approximately 4.2 spaces per 100 s.m.) and 1 parking space per 72 square metres of GFA (approximately 1.4 spaces per 100 s.m.), subject to the site’s zoning designation.

Proposed maximum rates for Mixed Use Areas are set out in Appendix C. For retail uses within Mixed Use Areas, we recommend a maximum parking rate of 4 spaces per 100 square metres.

6.4.4 Restaurants

The City of Guelph’s parking rate of 1 space per 7.5 square metres (approximately 13 spaces per 100 s.m.) is higher than the average rate of 9 spaces per 100 s.m. for comparable municipalities.

It should be noted that two of the municipalities, the City of Burlington and the City of Waterloo, base their parking rates for restaurants on the number of seats provided. It is recommended that the City of Guelph base its parking rate on GFA, in keeping with the approach currently used in the City of Guelph, City of Kitchener, City of St. Catharines, and Town of Oakville. This approach allows for easier implementation of minimum and maximum parking rates, as restaurants would not be required to add or remove spaces based on changes in seating.

We note that the City of Guelph recently adopted new minimum parking rates for restaurants within the downtown area of 1 space per 100 s.m., in recognition that the downtown area has municipal parking facilities within the area and that the area is well served by transit and cycling facilities. This lower rate requirement is comparable to the downtown rate requirements recently approved by the City of Kitchener.

Parking rate requirements for restaurant uses vary considerably from area to area within a given jurisdiction. Areas well served by transit and paid parking facilities require considerably lower parking requirements, compared to standalone restaurants in more suburban locations where parking demand is greater due to limited mobility options.

Exhibit 6-8 summarizes existing and proposed parking rates for restaurants. Reduced parking rates are proposed for the City’s Mixed Use Areas / Corridors in recognition of the planned function of these areas, potential for shared parking

arrangements with other uses, and the availability of transit services. A reduced parking rate of 9 spaces per 100 s.m is proposed for all other areas to match the average rates of the comparable municipalities.

Exhibit 6-8: Existing and Proposed Parking Rates for Restaurant Uses

Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
				Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
1 space per 7.5 s.m. (13 per 100 s.m.)	9 spaces per 100 s.m.	11.32 to 18.30 spaces per 100 s.m.	1 space per 100 s.m.	5 spaces per 100 s.m.	9 spaces per 100 s.m.

Maximum parking rates may also be introduced into the Zoning By-law for priority growth areas. The City of Kitchener's Zoning By-law sets a maximum parking rate for restaurants, between 1 parking space per 5 square metres of GFA (20 per 100 s.m.) and 1 parking space per 15 metres of GFA (6.6 per 100 s.m.), depending on the zoning of the site. Proposed maximum rates for Mixed Use Areas are set out in Appendix C

It is also recommended that the City of Guelph explore opportunities to encourage shared parking opportunities for restaurants wherever possible. Often restaurants are located within a commercial plaza complex or at the base of mixed use buildings. In such instances, alternate timing of parking demands for other uses may present an opportunity for shared parking. For example, office uses generally exhibit peak parking demands during typical working hours, whereas restaurants are generally busier in evening hours. For restaurant uses within Mixed Use Areas, we recommend a maximum parking rate of 12 spaces per 100 square metres.

6.4.5 Other Commercial Uses

A summary of recommended rates for other commercial uses identified in the City of Guelph Zoning By-law is included in Exhibit 6-9. These recommendations are based on an examination of the parking rates included of the comparable municipalities in the inter-jurisdictional review, the parking rates in the Downtown Zoning By-law, and the direction provided by the City of Guelph's land use policy.

We note that the proposed rate adjustments were developed largely in response to the results of the inter-jurisdictional review and the parking rates of comparable municipalities. Also, it should be noted that GFA based parking requirements are proposed for a number of land uses which previously had requirements based on other variables, e.g. practitioner, staff, or the number of facilities. This change is

recommended as these variables are not always known early on in the planning process, and changes to these variables made later (e.g. hiring an additional practitioner at a medical office) should not require a parking by-law review.

Exhibit 6-9: Existing and Proposed Parking Rates for Other Commercial Uses

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Restaurant – Take Out	1 space per 9 s.m. (11 per 100 s.m.)	9 spaces per 100 s.m.	10.34 to 10.67 spaces per 100 s.m.	1 space per 100 s.m.	5 spaces per 100 s.m.	9 spaces per 100 s.m.
Building Supply	1 space per 20 s.m. for building (5 per 100 s.m.) 1 space per 50 s.m. for outdoor storage (2 per 100 s.m.)	1 space per 33 s.m. (3 per 100 s.m.)	0.61 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Interior Warehouse	1 space per 50 s.m. (2 per 100 s.m.)	Varies. See Appendix B.	0.42 spaces per 100 s.m.	Not applicable	1.5 spaces per 100 s.m.	2 spaces per 100 s.m.
Car Wash Manual	2 spaces per bay, plus 5 waiting spaces	Varies. See Appendix B.	Not applicable	Not applicable	2 stacking spaces per bay, plus 3 waiting spaces	2 stacking spaces per bay, plus 3 waiting spaces
Car Wash Auto	5 spaces per bay, plus 15 waiting spaces	Varies. See Appendix B.	Not applicable	Not applicable	10 stacking spaces	10 stacking spaces
Cleaning Establishment	1 space per 50 s.m. (2 per 100 s.m.)	Varies. See Appendix B.	Not applicable	1 space per 100 s.m.	2 spaces per 100 s.m.	2 spaces per 100 s.m.
Catering Service	1 space per 50 s.m. (2 per 100 s.m.)	1 space per 50 s.m. (2 per 100 s.m.)	Not applicable	1 space per 100 s.m.	2 spaces per 100 s.m.	2 spaces per 100 s.m.

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Commercial Entertainment	1 space per 5 seats or 1 space per 5 s.m. (20 per 100 s.m.), whichever is greater	Varies. See Appendix B.	8.02 to 9.26 spaces per 100 s.m.	1 space per 100 s.m.	5 spaces per 100 s.m.	10 spaces per 100 s.m.
Commercial School	1 space per 2 staff members, plus 1 space per 28 s.m. (3.3 per 100 s.m.)	1 space per 25 s.m. (4 per 100 s.m.)	3.99 spaces per 100 s.m.	1 space per 100 s.m.	1 space per 100 s.m.	4 spaces per 100 s.m.
Computer Establishment	1 space per 33 s.m. (3 per 100 s.m.)	1 space per 33 s.m. (3 per 100 s.m.)	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Construction / Farm Sales	1 space per 33 s.m. (3 per 100 s.m.)	1 space per 25 s.m. (4 per 100 s.m.)	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Contractor's Yard	4 spaces per yard or 1 space per 50 s.m. (2 per 100 s.m.), whichever is greater	1 space per 100 s.m.	1.89 spaces per 100 s.m.	Not applicable	1 space per 100 s.m.	1 per 100 s.m.
Convenience Store	1 space per 16 s.m. (6 per 100 s.m.)	1 space per 25 s.m. (4 per 100 s.m.)	5.86 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	4 spaces per 100 s.m.
Day Care Centre	1 space per 10 children, plus 1 space per facility	1 space per 25 s.m.	2.64 spaces per 100 s.m.	1 space per 100 s.m.	3 spaces per 100 s.m.	3 spaces per 100 s.m.
Drive-Through Facilities (Retail)	Not applicable (use to be added to the Zoning By-law)	Not applicable	Not applicable	Not applicable	3 stacking spaces	3 stacking spaces
Drive-Through Facilities (Restaurant)	Not applicable (use to be added to the Zoning By-law)	Not applicable	Not applicable	Not applicable	6 stacking spaces	6 stacking spaces

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Drive-Through Facilities (Financial)	Not applicable (use to be added to the Zoning By-law)	Not applicable	Not applicable	Not applicable	3 stacking spaces	3 stacking spaces
Drive-Through Facilities (All others)	Not applicable (use to be added to the Zoning By-law)	Not applicable	Not applicable	Not applicable	3 stacking spaces	3 stacking spaces
Dry Cleaning	1 space per 33 s.m. (3 per 100 s.m.)	Varies. See Appendix B.	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Factory Sales Outlet	1 space per 33 s.m. of sales area (3 per 100 s.m.)	Varies. See Appendix B.	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Financial Establishment	1 space per 16.5 s.m. (6 per 100 s.m.)	1 space per 20 s.m. (5 per 100 s.m.)	3.28 to 4.00 spaces per 100 s.m.	1 space per 100 s.m.	3.5 spaces per 100 s.m.	5 spaces per 100 s.m.
Garden Centre	1 space per 20 s.m. of the building (5 per 100 s.m.), 1 space per 50 s.m. of outdoor space	1 space per 33 s.m. (3 per 100 s.m.)	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Hardware Store	1 space per 20 s.m.	1 space per 33 s.m. (3 per 100 s.m.)	0.58 to 1.50 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Liquor Store	1 space per 16.5 s.m.	1 space per 20 s.m. (5 per 100 s.m.)	1.32 to 1.85 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	5 spaces per 100 s.m.
Medical Clinic	6 spaces per practitioner, or 1 space per 15.5 s.m.	1 space per 25 s.m. (4 per 100 s.m.)	4.19 spaces per 100 s.m.	1 space per 100 s.m.	4 spaces per 100 s.m.	6 spaces per 100 s.m.
Monument Sales	1 space per 50 s.m. (2 per 100 s.m.)	Varies. See Appendix B.	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	2 spaces per 100 s.m.

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Office Supply	1 space per 25 s.m. (4 per 100 s.m.)	Varies. See Appendix B.	0.66 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Personal Service Establishment	1 space per 16.5 s.m. (6 per 100 s.m.)	1 space per 25 s.m. (4 per 100 s.m.)	Not applicable	1 space per 100 s.m.	4 spaces per 100 s.m.	4 spaces per 100 s.m.
Print Shop	1 space per 50 s.m. (2 per 100 s.m.)	1 space per 33 s.m. (3 per 100 s.m.)	3.24 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	2 spaces per 100 s.m.
Storage Facility	1 space per 50 s.m. (2 per 100 s.m.)	1 space per 100 s.m.	0.42 spaces per 100 s.m.	Not applicable	1 space per 100 s.m.	1 space per 100 s.m.
Hotel	1 space per guest room, plus 1 space per 10 s.m. (10 per 100 s.m.) open to the public	1 space per guest room	0.74 to 1.15 spaces per room	0.75 per guest room	0.75 spaces per guest room	1 space per guest room
Repair Service	1 space per 33 s.m. (3 per 100 s.m.)	1 space per 100 s.m.	Not applicable	1 space per 100 s.m.	1 space per 100 s.m.	1 space per 100 s.m.
Research Establishment	1 space per 33 s.m. (3 per 100 s.m.)	1 space per 50 s.m.	2.78 spaces per 100 s.m.	1 space per 100 s.m.	2 spaces per 100 s.m.	2 spaces per 100 s.m.
Retail Sales / Rental of Furniture and Appliances	1 space per 33 s.m. (3 per 100 s.m.)	Varies. See Appendix B.	0.52 to 1.54 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Retail Sales / Rental of Electronics and AV Equipment	1 space per 20 s.m. (3 per 100 s.m.)	Varies. See Appendix B.	2.17 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Tradesperson Shop	1 space per 40 s.m. (2.25 per 100 s.m.)	1 space per 33 s.m. (3 per 100 s.m.)	Not applicable	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Trucking Operation	1 space per 50 s.m. (2 per 100 s.m.)	1 space per 100 s.m.	Not applicable	Not applicable	1 space per 100 s.m.	1 space per 100 s.m.
Vehicle Gas Bar	2 spaces at minimum per use	Varies. See Appendix B.	5.46 to 8.73 spaces per 100 s.m.	1 space per 100 s.m.	2 stacking spaces per fueling area, plus 5 spaces per 100 s.m. (GFA of any commercial building)	2 stacking spaces per fueling area, plus 5 spaces per 100 s.m. (GFA of any commercial building)
Service Station / Repair Shop	1 space per 14 s.m. (7 per 100 s.m.)	3 spaces per 100 s.m.	1.15 to 1.82 spaces per 100 s.m.	1 space per 100 s.m.	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Vehicle Sales	1 space per 25 s.m. (4 per 100 s.m.), or a minimum of 2 spaces, whichever is greater	1 space per 50 s.m. (2 per 100 s.m.)	2.46 spaces per 100 s.m.	1 space per 100 s.m.	1 space per 100 s.m.	2 spaces per 100 s.m.
Veterinary Service	1 space per 25 s.m. (4 per 100 s.m.)	1 space per 25 s.m. (4 per 100 s.m.)	3.58 spaces per 100 s.m.	1 space per 100 s.m.	2 spaces per 100 s.m.	4 spaces per 100 s.m.

In addition to these recommended minimum parking rates, proposed maximum rates for Mixed Use Areas are set out in Appendix C.

7 Miscellaneous Uses / Other Parking Rates

This Section of the Report discusses the City of Guelph's existing parking rates (not commercial or residential) which were reviewed in Phase 1 of this study. This Section also considers the parking rates of comparable municipalities for similar miscellaneous uses and makes various recommendations where updates to City's existing standards should be considered.

7.1 Existing By-law Standards

Section 4.13.4.4 of the Zoning By-law sets out minimum parking space requirements for other / miscellaneous land uses. These minimum parking space requirements are summarized in Exhibit 7-1.

Exhibit 7-1: Required Parking Spaces - Miscellaneous Land Uses

Type of Use or Building	Minimum Required Parking Spaces
Aggregate Extraction	4 per operation
Arena (No Seats)	1 per 33 m ² GFA
Public Hall (Arena with Seats, Assembly Hall, Auditorium, Religious Establishment, Gymnasium, Auction Centre, Club, Other Place of Assembly, Auditorium or Gymnasium to Another Use)	<p>1 per 5 seats or 1 per 10 m² GFA used for a hall, auditorium or similar use involving the assembly of persons, whichever is greater</p> <p>Where public assembly seating is provided in the form of fixed benches or pews, then 0.5 metres of each such bench or pew length shall be considered as equalling 1 seat</p> <p>The number of persons to be accommodated for public assembly activities with movable seating shall be passed on 1 person per 1 m² of movable seating</p>
Medical Treatment Facility	1.25 spaces per bed
Elementary School	1 per classroom plus a minimum of 4 visitor parking spaces, plus any required parking for a public hall if such exists
Secondary School	3 per classroom plus any required parking for a public hall if such exists

7.2 Comparison of Municipal Standards

In addition to the parking rates examined in the previous subsections, a comparative analysis was completed of all other uses outlined in the City of Guelph's Zoning By-law.

7.3 Recommendations

Recommended miscellaneous uses parking rates within the City of Guelph have been outlined below.

As previously mentioned, the review of the land use planning framework within the City of Guelph undertaken within Phase 1 of this Report indicates that parking rates and flexible parking rates may be implemented as a result of shared parking opportunities. Areas well-serviced by transit and active transportation are particularly suitable for these policies.

A summary of recommended rates for a variety of other uses identified in the City of Guelph's Zoning By-law is included in Exhibit 7-2. These recommendations are based on an examination of the parking rates included of the comparable municipalities in the inter-jurisdictional review, the parking rates in the Downtown Zoning By-law, and the direction provided by the City of Guelph's land use policy. The parking demands of these uses were not assessed as part of the off-street parking demand survey.

Note that recommended rates are based on uses within the existing Zoning By-law. These uses may be deleted or consolidated through the City of Guelph's currently ongoing Zoning By-law review. As a result, not all recommended rates may be relevant in the new Zoning By-law.

Additionally, some of the uses recommended minimum parking rates below may not be permitted within mixed use areas (Intensification Corridors and Community Mixed Use Nodes) in the new Zoning By-law. As such, these recommended minimum parking rates may not be relevant in the future.

Of the recommendations for 'other' uses, it is noted that a lower rate is recommended for publicly-owned Municipal Facilities / Recreation Centres compared to privately-owned facilities (i.e., health centres, fitness centres, billiard parlours, and bowling alleys). Lower parking rates are recommended for these publicly owned and / or operated facilities in order to avoid placing restrictions on these facilities which could hinder the delivery of public services and in recognition that these facilities are generally located within priority growth areas or other areas readily serviced by public transit.

Exhibit 7-2: Existing and Proposed Parking Rates for Miscellaneous Uses

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Warehouse	1 space per 200 s.m. (0.5 spaces per 100 s.m.)	1 space per 150 s.m. (0.67 spaces per 100 s.m.)	0.42 spaces per 100 s.m.	Not applicable	0.5 spaces per 100 s.m.	0.5 spaces per 100 s.m.
Manufacturing	1 space per 50 s.m. (2 spaces per 100 s.m.), where the GFA is between 1,000 s.m. and 5,000 s.m. 1 space per 150 s.m. (0.67 spaces per 100 s.m.), where the GFA is above 5,000 s.m.	1 space per 100 s.m.	0.99 space per 100 s.m.	Not applicable	1 space per 100 s.m.	1 space per 100 s.m.
Public Hall / Building	1 space per 5 seats or 1 space per 10 s.m. (10 spaces per 100 s.m.)	3 spaces per 50 s.m. (6 spaces per 100 s.m.)	2.05 to 4.31 spaces per 100 s.m.	1 per 67 s.m. (1.5 spaces per 100 s.m.)	6 spaces per 100 s.m.	6 spaces per 100 s.m.
Aggregate Extraction	4 spaces per operation	Varies. See Appendix B.	Not applicable	Not applicable	4 spaces per operation at minimum	4 spaces per operation at minimum
Arena	1 space per 33 s.m. (3 spaces per 100 s.m.)	5 per 100 s.m.	1.27 to 1.88 spaces per 100 s.m.	1 space per 67 s.m.	3 spaces per 100 s.m.	3 spaces per 100 s.m.

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
School – Elementary	1 space per classroom, plus 4 visitor parking spaces	1.5 spaces per classroom	0.13 spaces per student	1 space per 67 s.m. (1.5 spaces per 100 s.m.)	1 spaces per classroom, plus 4 visitor parking spaces	1 spaces per classroom, plus 4 visitor parking spaces
School – Secondary	3 spaces per classroom	4 spaces per classroom	0.26 spaces per student	1 space per 67 s.m. (1.5 spaces per 100 s.m.)	3 spaces per classroom	3 spaces per classroom
Church / Place of Worship	1 space per 5 seats or 1 space per 10 s.m. (10 spaces per 100 s.m.), whichever is greater	6 spaces per 100 s.m.	10.16 spaces per 100 s.m.	1 space per 67 s.m. (1.5 spaces per 100 s.m.)	5 spaces per 100 s.m.	6 spaces per 100 s.m.
Recreation Centre	1 space per 10 s.m. (10 spaces per 100 s.m.) or 1 space per 5 seats, whichever is greater	5 spaces per 100 s.m.	2.05 to 4.31 spaces per 100 s.m.	1 space per 67 s.m.	5 spaces per 100 s.m.	5 spaces per 100 s.m.

Land Use	Existing Rate: Minimum	Average Rate in Comparable Municipalities	ITE Rate	Existing Downtown Rate: Minimum	Recommended Rates	
					Mixed Use Areas / Corridors: Minimum	Other Areas: Minimum
Golf Course	6 spaces per hole	4 spaces per hole, plus 1 per 25 s.m. (4 spaces per 100 s.m.)	7.22 to 8.5 spaces per hole	Not applicable	4 spaces per hole, plus 4 spaces per 100 s.m. (GFA of clubhouse, proshop and other course related buildings)	4 spaces per hole, plus 4 spaces per 100 s.m. (GFA of clubhouse, proshop and other course related buildings)
Mini Golf	1 space per tee or hole	1 space per hole	-	Not applicable	1 space per tee or hole	1 space per tee or hole
Bowling Alley	1 space per 6 lanes, plus 1 space per 23 s.m (4.4 spaces per 100 s.m.). of accessory use	4 spaces per alley	4.39 spaces per lane	1 space per 100 s.m.	1 space per 6 lanes, plus 1 space per 100 s.m.	1 space per 6 lanes, plus 2 spaces per 100 s.m.
Medical Treatment Facility	1.25 spaces per bed	1 space per 50 s.m. (2 spaces per 100 s.m.)	2.42 spaces per 100 s.m.	1 space per 100 s.m.	2 spaces per 100 s.m.	2 spaces per 100 s.m.

8 Loading Space Requirements

This Section of the Report discusses the City's existing regulations for loading spaces and compared these regulations to those of comparable municipalities, and the guidance set out with regards to loading spaces contained in the City's Site Plan Procedures and Guidelines. This Section also makes recommendations for updated loading standards and requirements.

8.1 Existing By-law Standards

The City of Guelph Zoning By-law establishes the following definition for "Loading Space":

"Loading Space" means an off-street space or berth located on the same Lot as a permitted Use and used for the parking of a Commercial Vehicle loading or unloading merchandise or materials.

Section 4.14 of the Zoning By-law states that "adequate loading spaces" must be provided in an industrial mall / use, an aggregate use, a commercial mall / use, or a warehouse. However, the Zoning By-law does not establish loading space dimension requirements, nor does it establish rates for the provision of loading spaces.

8.2 Comparison of Municipal Standards

The City of St. Catharines' Zoning By-law states that loading spaces should be maintained with a hard surface and specifies where loading spaces should be located. While the Town of Oakville's Zoning By-law establishes minimum size requirements and location criteria for loading spaces, it does not specify a certain number of loading spaces that businesses are required to provide. The provision of loading spaces is instead left to the determination of businesses. Similarly, the City of Kitchener's Zoning By-law solely provides locational criteria for loading spaces where they are provided.

The City of Burlington requires that at least 1 off-street loading space must be provided for every principal building, including mixed use buildings, but excluding residential buildings of less than four storeys.

The City of Waterloo's Zoning By-law also provides minimum loading space requirements for non-residential uses between various ranges of gross floor area. Loading intensive non-residential uses specified by the Zoning By-law are subject to increased minimum loading space requirements between various ranges of gross floor area. For residential uses, minimum loading space requirements are based on the number of bedrooms. Additionally, the City of Waterloo's Zoning By-law identifies three types of loading spaces with unique dimensions. The types of loading spaces required by each use for different ranges of gross floor area is specified by the Zoning By-law.

8.3 Recommendations

The City of Guelph's Zoning By-law currently states that "adequate loading spaces" must be provided in an industrial mall / use, an aggregate use, a commercial mall / use, or a warehouse. Requirements related to the dimensions, rate, and location of loading spaces are not established by the Zoning By-law. These factors are left to the discretion of the business owner / operator.

The City of Guelph's Site Plan Procedures and Guidelines document sets out a number of criteria for loading spaces including rates, minimum dimensions, materials, and locational criteria. The loading space rate prescribed by this document is based on the GFA of the subject use, as summarized in Exhibit 8-1.

Exhibit 8-1: Loading Space Requirements in the City of Guelph's Site Plan Procedures and Guidelines

Gross Floor Area	Number of Spaces
0 to 500 s.m.	1
501 to 2,300 s.m.	2
Each Additional 9,300 s.m.	1 additional space

As per the Site Plan Procedures and Guidelines, loading spaces are required to be 3.6 metres wide by 9.0 metres long, with a vertical clearance of 4.2 metres. Loading spaces are further required to be located to the rear of a building's front wall or to the rear of an exterior sidewall facing a public right-of-way. The location of loading spaces should avoid interference with the movement of traffic on public streets or internal circulation. Loading spaces should be landscaped and screened and surfaced with a capped, hardtop material (i.e., asphalt).

It is recommended that the Site Plan Procedures and Guidelines continue to be used to provide direction for loading space requirements within the City of Guelph in regard to the required number of loading spaces and minimum dimensions, rather than new standards being implemented in the Zoning By-Law. This approach will provide flexibility to businesses to provide loading spaces appropriate to their individual needs. These requirements are contained in Section 3.0 of the Site Plan Procedures and Guidelines.

We further recommend that the City of Guelph's Zoning By-law is updated to include locational criteria for loading spaces. This approach would be more in keeping with the loading space requirements prescribed in comparable municipalities, where less discretion in regard to loading spaces is granted to business owners / operators. For example, the City of St. Catharines' Zoning By-law also prescribes where loading spaces should be located and also requires that they are maintained with a hard surface.

In keeping with the requirements of the Site Plan Procedures and Guidelines, it is recommended that the City of Guelph's Zoning By-law establish new locational criterion to require that any loading spaces are located to the rear of a building's front wall or to the rear of an exterior sidewall facing a public right-of-way. This

locational criteria would discourage loading spaces from interfering with public traffic and internal circulation.

9 Driveway Widths

This Section of the Report discusses the City of Guelph's current requirements for driveway widths and compares these standards to those of comparable municipalities to assess the adequacy of the regulations and to make recommendations with regards to the same.

9.1 Existing By-law Standards

The Zoning By-law establishes minimum dimension requirements for driveways and parking aisles.

Section 4.13.3.2 provides that all driveways associated with parking must have a minimum width of 3.0 metres at the street line and that all parking must be provided with adequate means of ingress and egress to and from a street or lane.

Section 4.13.7.1 provides that in an R.3 and R.4 Zone if access to required off-street parking spaces is by a driveway or parking aisle, such driveway or parking aisle shall have a minimum width of 6.0 metres throughout its length. In addition to the minimum dimensions established above, Section 4.13.7.2.1 of the Zoning By-law also establishes maximum widths of driveways in certain residential zones:

- (i) 7.5 metres in an R.1A Zone.
- (ii) 6.5 metres in an R.1B Zone.
- (iii) 6.0 metres in an R.1C Zone.
- (iv) 5.0 metres in an R.1D Zone.
- (v) 3.5 metres in an R.2 Zone
- (vi) In an R.3 zone (townhouses) the driveway shall not exceed the garage width of the unit or no more than 50% of the front yard whichever is less.

In addition to the above, we note that the Built Form Guidelines for Townhouses and Mid-Rise Buildings provide that the maximum width of a driveway for a townhouse should be restricted to 3 metres and the minimum depth of a driveway should be 6 metres.

While the Zoning By-law establishes fairly clear direction on the width requirements for driveways and parking aisles associated with residential development, the dimensional requirements for driveways and parking aisles for non-residential development are less clear.

9.2 Comparison of Municipal Standards

The City of Guelph and the comparable municipalities reviewed as part of this study vary significantly in how they prescribe minimum driveway widths in their Zoning By-laws.

9.2.1 Definition of ‘Driveway’

Through the inter-jurisdictional review, it has been observed that the City of Guelph and the identified comparable municipalities define “driveways” differently, as summarized in Exhibit 9-1.

Exhibit 9-1: Definitions of Driveways from Comparable Municipalities

Municipality	Definition
Guelph	<p>“Driveway (Residential)” means a surface area between a Street and a main Structure consisting of, but not limited to, asphalt, concrete, compact gravel, interlocking brick, paving stone or the like used or designed to be used for the driving or parking of Vehicles and shall include any surfaced walk or hard landscaping situated parallel to the driveway in a manner capable of being parked or driven upon by part or the whole of a Vehicle.</p> <p>“Driveway (Non-Residential)” means the area provided for Vehicle access between a Street and an off-street Parking Space, but does not include a Parking Aisle.</p>
Burlington	A single vehicular passageway, or series of interconnected passageways, for exclusive or shared private use, providing vehicular access between a street or condominium common element roadway and an area used for the parking, loading or storage of a vehicle.
Kitchener	Means a private road giving access from a public street to a building or parking space
Oakville	Means a motor vehicle access including a hammerhead provided between a road, lane or common element condominium roadway and a parking space, aisle, or loading area, or between two parking areas
St. Catharines	Not defined.
Waterloo	Means that portion of a lot used for the passage of motor vehicles from a street, lane or common element road to a parking space or loading area.

In all of the comparable municipalities (save for the City of St Catharine’s which does not define ‘driveways’), the primary function of a driveway is to provide vehicular access to a parking space.

It is noted that the City of Guelph includes “any surfaced walk or hard landscaping situated parallel to the driveway” which could reasonably be parked upon, which would include pedestrian pathways. While this definition is unique in relation to the comparable municipalities, it is not uncommon for municipalities to include walkways as a component of driveways.

9.2.2 Different Approaches to Regulating Driveway Widths

Based on our findings from the inter-jurisdictional review and our experience, there are several different approaches that have been taken to regulate driveway widths amongst Ontario municipalities. Some of the most common approaches to regulating driveway dimensions are summarized in Exhibit 9-2.

Exhibit 9-2: Approaches to Regulating Driveway Dimensions

No.	Approach	Description
1	Fixed Maximum Dimensions	A Zoning By-Law establishes hard maximums for driveway widths, such as “a maximum driveway width of 7 metres”.
2	Maximum Driveway Widths as a Percentage of Lot Width	A Zoning By-law establishes maximum driveway widths as a percentage of the overall lot width measured at either the front yard setback or the property line. For instance, “a driveway shall have a width of no more than 50% of the overall lot width”.
3	Maximum Driveway Widths as a Percentage of Unit Width or Building Façade	A Zoning By-Law establishes maximum driveway widths as a percentage of the width of the permitted dwelling or the width of the front façade. For instance, “a driveway shall have a width of no more than 50% of the width of the front façade of a dwelling”.
4	Hybrid Approach	A Zoning By-Law establishes maximum driveway widths with by combining Options 1 and 2 or 1 and 3 above. For instance, “a driveway shall have a maximum width of 7 metres or 50% of the lot width, whichever is lesser”.

In addition to the foregoing, it is noted that some municipalities also establish maximum driveway areas in addition to maximum driveway widths. In some cases municipalities have established maximum areas (e.g., no more than 50 square metres etc.) while others have regulated driveway areas as part of overall lot coverage restrictions (e.g., no more than 45% of the lot can be covered by hard surfaces). In our experience, these approaches are less common, more difficult to interpret by the general public and development community and more complex to implement by municipalities.

The City of Guelph’s existing Zoning By-Law largely follows the ‘fixed maximum dimension’ approach described above whereby for each of its residential zones the Zoning By-Law sets out a maximum driveway width that has been tailored to minimum lot dimensions. For instance, within the R.1A Zone – which is the City’s large lot single detached zone classification – driveways are limited to 7.5 metres in width. Within the R.1D Zone – which is the City’s zone classification for smaller residential lots – driveways are limited to 5 metres in width.

In the R.3 Zone (which sets out regulations for townhouses), the City has taken a hybrid approach to regulating driveway widths whereby the Zoning By-law limits the driveway to the width of the garage or 50% of the front yard, whichever is less.

As detailed in Section 9.2.3, many of the comparable municipalities reviewed as part of the inter-jurisdictional review have moved towards a hybrid approach to regulating driveway widths by generally limiting the width of a driveway to a specific dimension (e.g., 7 metres) or as a percentage of the lot or dwelling width, whichever is lesser.

9.2.3 Comparison of Residential Driveway Width Regulations

As part of the inter-jurisdictional review of parking standards completed in Phase 1 of this project, an analysis of driveway width zoning standards was undertaken. Specifically, this review compared the driveway width regulations set out specific to the low-density residential zones of the City of Guelph's Zoning By-Law compared to similar zones of the five comparable communities.

9.2.3.1 Large Lot Residential (Single Detached)

Within the City of Guelph's existing Zoning By-Law, the two lowest density residential zones (with the largest lot size requirements) are the R.1A and R.1B zones, which require a minimum lot frontage of 18 metres and 15 metres respectively.

Exhibit 9-3 and Exhibit 9-4 summarize the City of Guelph's existing driveway width regulations for these zones compare to similar zones of comparable municipalities.

Exhibit 9-3: R.1A Zone Comparable Driveway Regulations

Municipality	Zone	Min. Lot Width	Max. Driveway Width	Driveway as % of Minimum Lot Width
Guelph	R1A	18 metres	7.5 metres	42%
Kitchener (Draft)	-	20.2 metres	10.1 metres	50%
Waterloo	R3	22 metres	10.24 metres	47%
Oakville	RL7	18.5 metres	9 metres	49%
Burlington	R2	18 metres	50% of lot width	50%
St. Catharines	R1	16.5 metres	50% of unit width	50% (less once setbacks applied)

Exhibit 9-4: R.1B Zone Comparable Driveway Regulations

Municipality	Zone	Min. Lot Width	Max. Driveway Width	Driveway as % of Minimum Lot Width
Guelph	R1B	15 metres	6.5 metres	42%
Kitchener (Draft ZBL)	-	15.4 metres	6.7 metres	50%
Waterloo	R1	13.5 metres	7 metres	47%
Oakville	RL1	15 metres	50% of lot width	49%
Burlington	R3	15 metres	50% of lot width	50%
St. Catharines	R1	16.5 metres	50% of unit width	50% (less once setbacks applied)

As detailed in Exhibit 9-3, for larger lots (18 metres or greater) the City of Guelph and comparable municipalities permit driveways which functionally are three cars wide. It is noted that the City of Guelph's maximum driveway width is more restrictive than those of comparable municipalities.

Exhibit 9-4 shows that for lots 15 metres driveways are typically restricted to 7 metres or 50% of the lot width, which functionally would permit a double-wide driveway. This is consistent with the City of Guelph's existing standard which limits driveway widths in the R.1B zone to 6.5 metres in width.

9.2.3.2 Small to Medium Lot Residential (Single Detached)

The City of Guelph's existing R.1C and R.1D zones set out regulations and requirements for the City's small to medium lot, low density residential areas with minimum frontage requirements of 12 metres and 9 metres respectively.

Exhibit 9-5 and Exhibit 9-6 summarize the City of Guelph's existing driveway width regulations for single detached dwellings within these zones compare to similar zones of comparable municipalities.

Exhibit 9-5: R.1C Zone Comparable Driveway Regulations

Municipality	Zone	Min. Lot Width	Max. Driveway Width	Driveway as % of Minimum Lot Width
Guelph	R1C	12 metres	6 metres	50%
Kitchener (Draft)	-	Less than 12.1 metres	3.6 metres	30%
Waterloo	R2	12 metres	7 metres	58%
Oakville	RL6	11 metres	6 metres	55%
Burlington	R3.4	12 metres	50% of lot width	50%
St. Catharines	R2	10 metres	50% of unit width	50%

Exhibit 9-6: R.1D Zone Comparable Driveway Regulations

Municipality	Zone	Min. Lot Width	Max. Driveway Width	Driveway as % of Minimum Lot Width
Guelph	R1D	9 metres	5 metres	56%
Kitchener (Draft ZBL)	-	9 metres	3.6 metres	40%
Waterloo	R4	9 metres	7m	*78%
Oakville	RL9	9 metres	6 metres	*67%
Burlington	R4	9.5 metres	50% of lot width	50%
St. Catharines	R2	10 metres	50% of unit width	50%

As detailed in Exhibit 9-5, within the R.1C zone the City of Guelph and comparable municipalities permit driveways which functionally are two cars wide, save for the standards currently proposed by the City of Kitchener which would limit the width or a driveway to 3.6 metres for any lots less than 12 metres wide (functionally a single-car wide driveway).

Exhibit 9-6 shows that for lots with a width of 9 metres (R.1D and comparable zones from other communities) driveways width regulations vary greatly from community to community. The City of Kitchener is proposing regulations that would limit the width or a driveway to 3.6 metres (functionally a single-car wide driveway), whereas Burlington and St. Catharines limit the width of driveways to 50% of the width of the lot and unit width respectively.

Conversely, the Cities of Waterloo and Oakville have higher permitted driveway width permissions of 7 metres and 6 metres respectively. However, it is noted that while these municipalities permit greater driveway widths, both communities have regulations restricting the location of the driveway to areas not in front of the habitable portion of the dwelling and limiting lot coverage on the site. As such the actual width of a driveway which could be constructed on such a small lot (9 metres of frontage) is much less than the 6 metres or 7 metres that is permitted.

9.2.3.3 *Semi-Detached / Duplex Residential*

The City of Guelph's R2 zone establishes regulations for semi-detached and duplex dwellings in the City. Exhibit 9-7 compares the driveway width requirements of the R2 zone compared to similar zones of comparable municipalities.

Exhibit 9-7: R2 Zone Comparable Driveway Regulations

Municipality	Zone	Min. Lot Width	Max. Driveway Width	Driveway as % of Minimum Lot Width
Guelph	R2	7.5 metres per unit	3.5 metres	47%
Kitchener (Draft ZBL)	-	7.5 metres per unit (same standard applies to any lot less than 12.1 metres wide)	3.6 metres	48%
Waterloo	R5	7.5 metres per unit	3.5 metres (7 metres for two units)	47%
Oakville	RL9	7.5 metres per unit	3 metres (6 metres for two units)	40%
Burlington	R4	9 metres per unit	50% of lot width	50%
St. Catharines	R3 (Semi-Detached)	7.5 metres per unit	50% of unit width	50%

Based on the foregoing, it is observed that the City of Guelph's existing standard aligns closely with those of the Cities of Waterloo, Oakville and Kitchener (draft)

which functionally limit the width of driveways for semi-detached dwellings to a single car wide driveway.

9.2.3.4 Street Townhouses

The City of Guelph's R3 zone establishes regulations for townhouse dwellings in the City. Exhibit 9-8 compares the driveway width requirements of the R3 zone compared to similar zones of comparable municipalities.

Exhibit 9-8: R.3 Zone Comparable Driveway Regulations

Municipality	Zone	Min. Lot Width	Max. Driveway Width	Driveway as % of Minimum Lot Width
Guelph	R3	6 metres	Driveway shall not exceed the garage width of the unit or not more than 50% of the front yard whichever is less	50%
Kitchener (Draft ZBL)	Not applicable	6 metres per unit (same standard applies to any lot less than 12.1 metres wide)	3.6 metres	60%
Waterloo	R6	7.5 metres	58% of facade	58%
Oakville	RL11	18 metres (6 metres per lot)	9 metres (3 metres per lot)	50%
Burlington	RM5	6.8 metres	50% of lot width	50%
St. Catharines	R4	6 metres	50% of unit width	50%

Based on the foregoing, it is observed that the City's existing regulations which limit the width of the driveway to 50% of the front yard or the width of the garage is consistent with the approaches implemented by the other comparable

municipalities which generally limit the width of driveways to either 50% of the unit width or 50% of the lot width.

It is also noted that the R3 zone standards are closely aligned with the recommendations set out in the City of Guelph's Built Form Guidelines for Townhouses and Mid-Rise Buildings which direct that driveways should be restricted to 3 metres in width for townhouse dwellings.

9.3 Recommendations

As detailed in Section 9.2.2, the City of Guelph currently regulates driveway widths primarily with a fixed maximum rate (save for the R.3. zone), whereas many of the comparable municipalities have moved towards a hybrid approach to regulating driveway widths by limiting the width of a driveway to a certain percentage of the overall lot width or unit width up to a set maximum dimension.

The following Exhibits compare the City's existing approach to driveway widths versus approaches that would limit the width of driveways to a percentage of either the overall lot width or width of the façade of a dwelling.

Exhibit 9-9: Existing R.1A Zoning Driveway Regulations

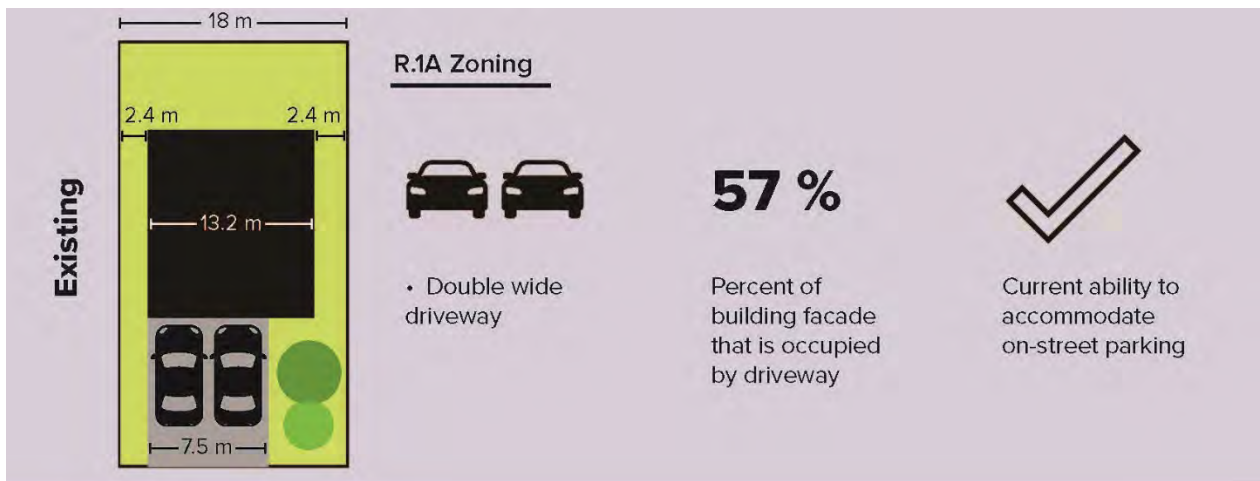


Exhibit 9-9 above illustrates how an R.1A zoned lot with 18 metres of frontage would function should a driveway with the maximum permitted width of 7.5 metres is constructed. In this example, the driveway would permit double wide parking, and the driveway would make up 57% of the front façade of the building once required side yard setbacks are applied.

Exhibit 9-10: Alternate Approaches to Regulating Driveways in the R.1A Zone

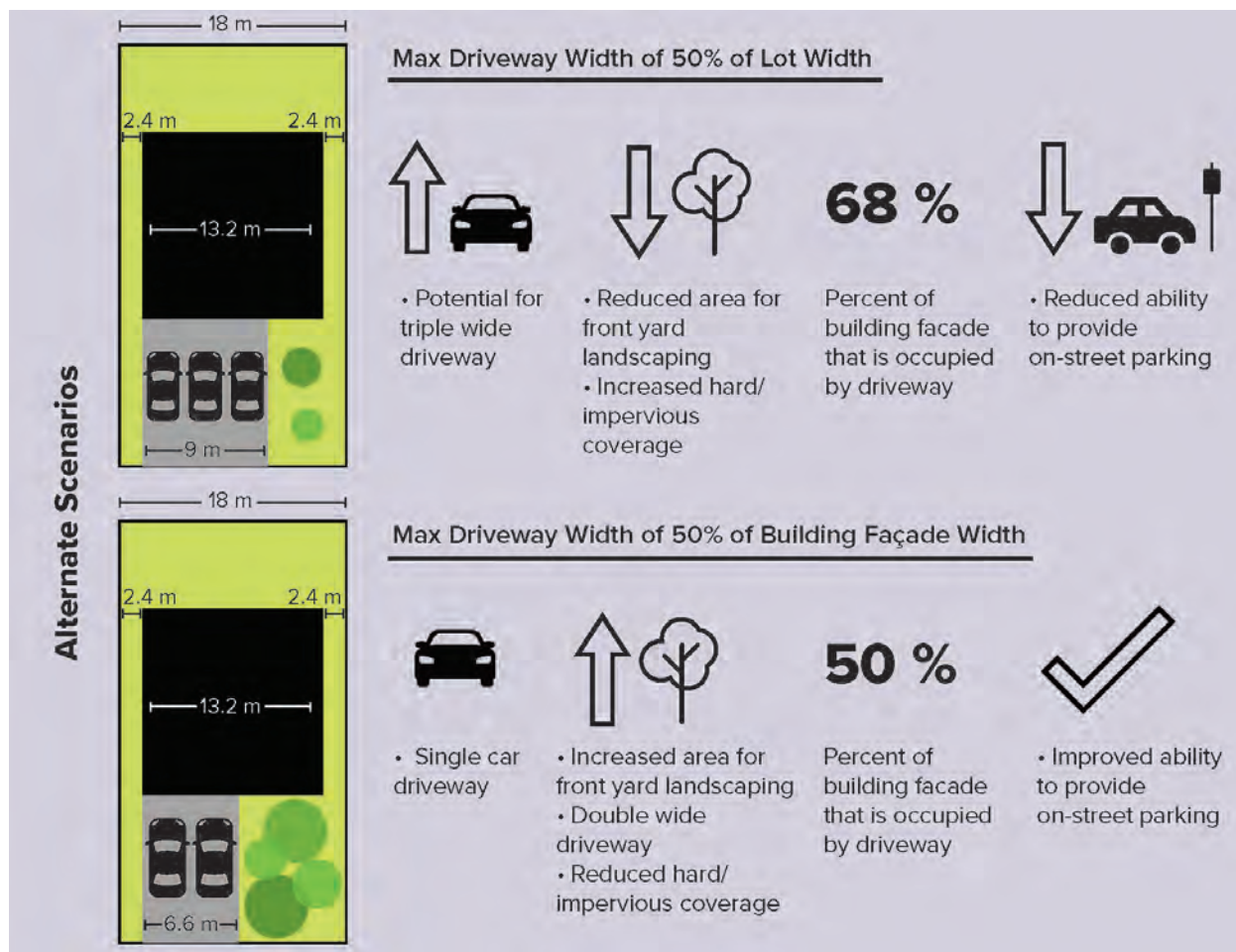


Exhibit 9-10 illustrates two alternate scenarios for an equal-sized lot should driveways be either regulated as a percentage of the overall lot frontage or as a percentage of the width of the dwelling.

If the driveway was permitted to be 50% of the overall lot width, a wider driveway would be permitted with space for a 3 car wide driveway. However, corresponding to the wider driveway, less space would be provided for landscaping / planting, the overall amount of impervious / hard surfaces would increase, and the overall ability to provide on-street parking would be reduced (due to the increased length of the curb cut for the driveway).

If the maximum driveway width was limited to 50% of the width of the dwelling, adequate space would still be available for a two-car wide driveway, while additional space would be provided for front yard landscaping, and less of the yard would be impervious / hard surfaced. Further, narrower driveways would result in increased potential for on-street parking (due to a longer curbside for vehicles to park beside).

Exhibit 9-11: Existing R.1D Zoning Driveway Regulations

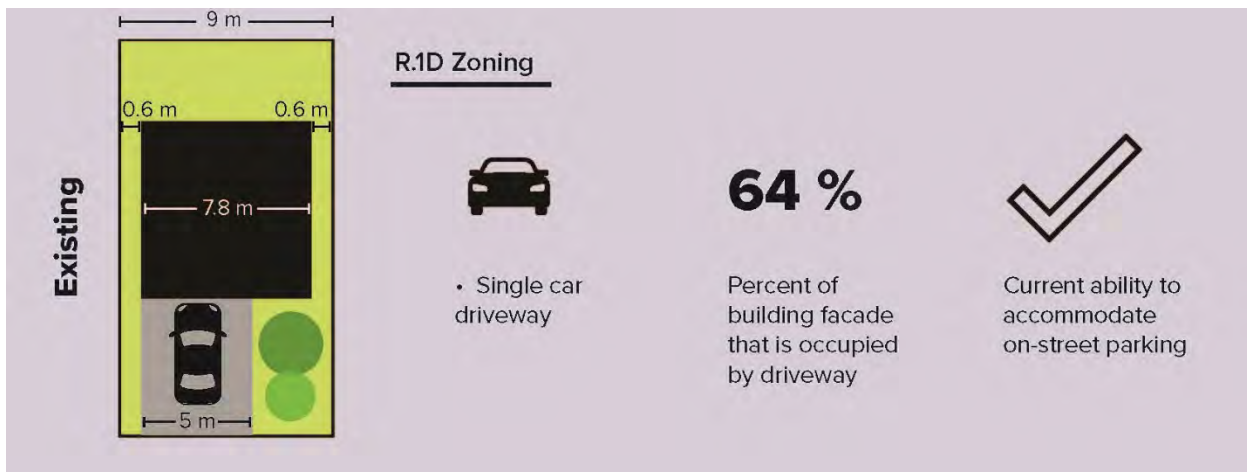


Exhibit 9-11 above illustrates how an R.1D zoned lot with 9 metres of frontage would function should a driveway width the maximum permitted width of 5 metres be constructed. In this example, the driveway would permit a one-car wide driveway, which would make up 64% of the front façade of the building once required side yard setbacks are applied. This is considerably wider more than the 50% target set out in the City's Urban Design Manual.

Exhibit 9-12: Alternate Approaches to Regulating Driveways in the R.1D Zone

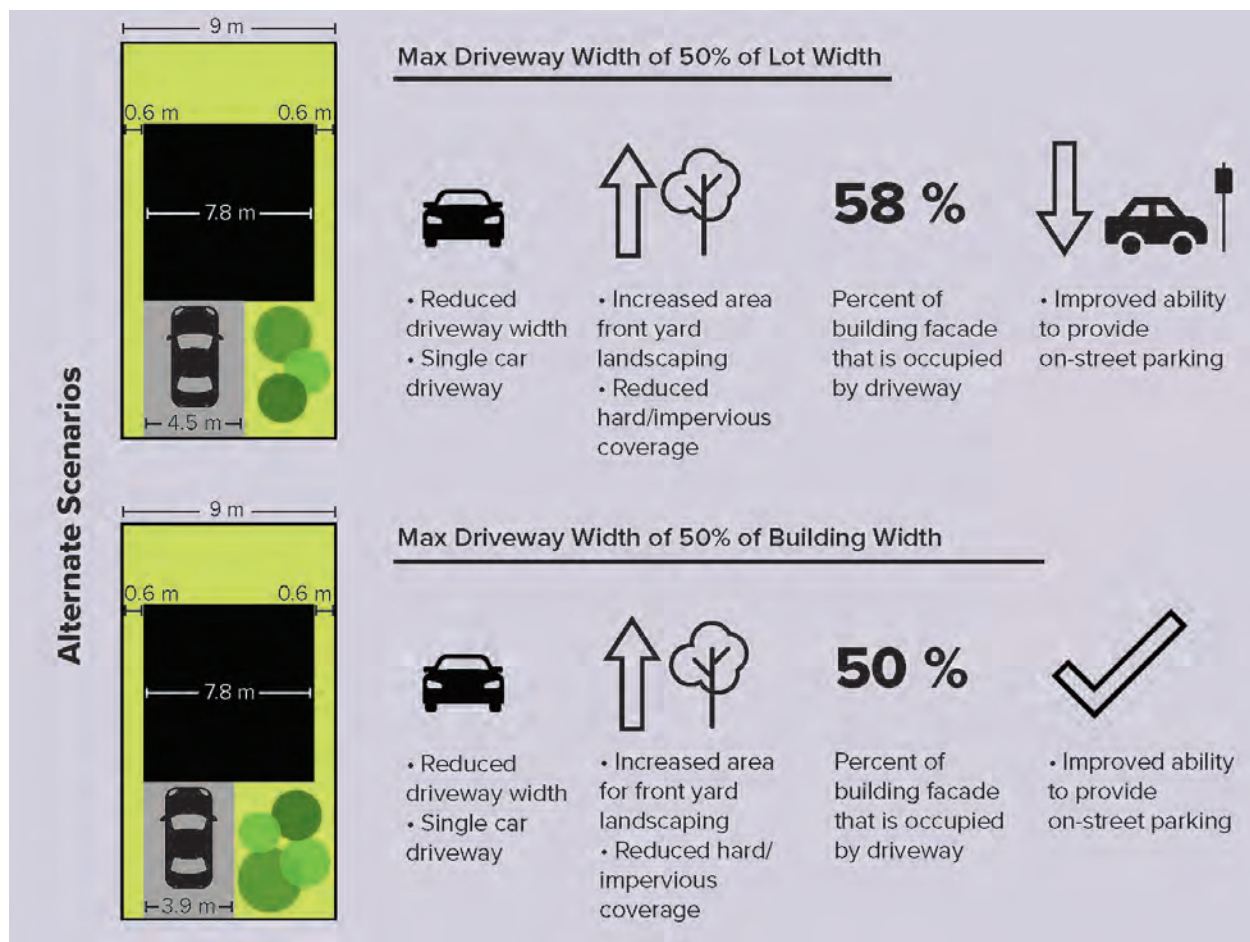


Exhibit 9-12 illustrates two alternate scenarios for an equally sized lot should driveways be either regulated as a percentage of the overall lot frontage or as a percentage of the width of the dwelling.

If the driveway was permitted to be 50% of the overall lot width, a driveway of up to 4.5 metres in width would be permitted which provides functional space for a single car wide driveway. A driveway of 4.5 metres would occupy 58% of the front façade of a dwelling, which is less than currently permitted but still above the threshold set out in the City's Urban Design Manual.

If the maximum driveway width was limited to 50% of the width of the dwelling, adequate space would still be available for a single car wide driveway, while additional space would be provided for front yard landscaping, and less of the yard would be impervious / hard surfaced. Further, narrower driveways would result in increased potential for on-street parking throughout the neighbourhood.

Exhibit 9-13: Existing R.2 Zoning Driveway Regulations (Semi-Detached Dwellings)

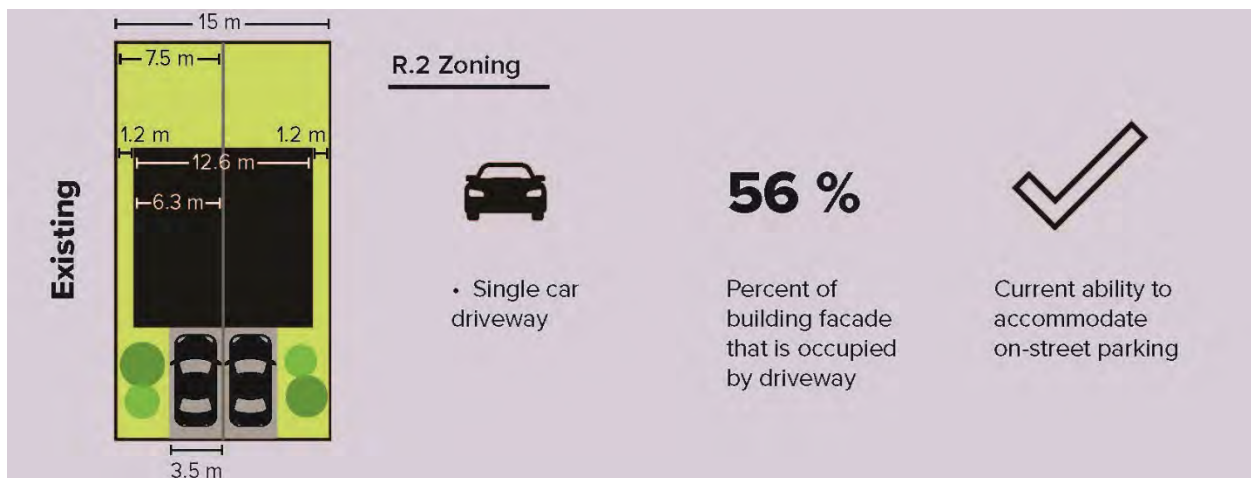


Exhibit 9-13 above illustrates how an R.2 zoned lot with 7.5 metres of frontage would function should a driveway width the maximum permitted width of 3.5 metres be constructed. In this example, the driveway would permit a one-car wide driveway, which would make up 56% of the front façade of the building once required side yard setbacks are applied, which is slightly higher than the 50% target set out in the City's Urban Design Manual.

Exhibit 9-14: Alternate Approaches to Regulating Driveways in the R.2 Zone

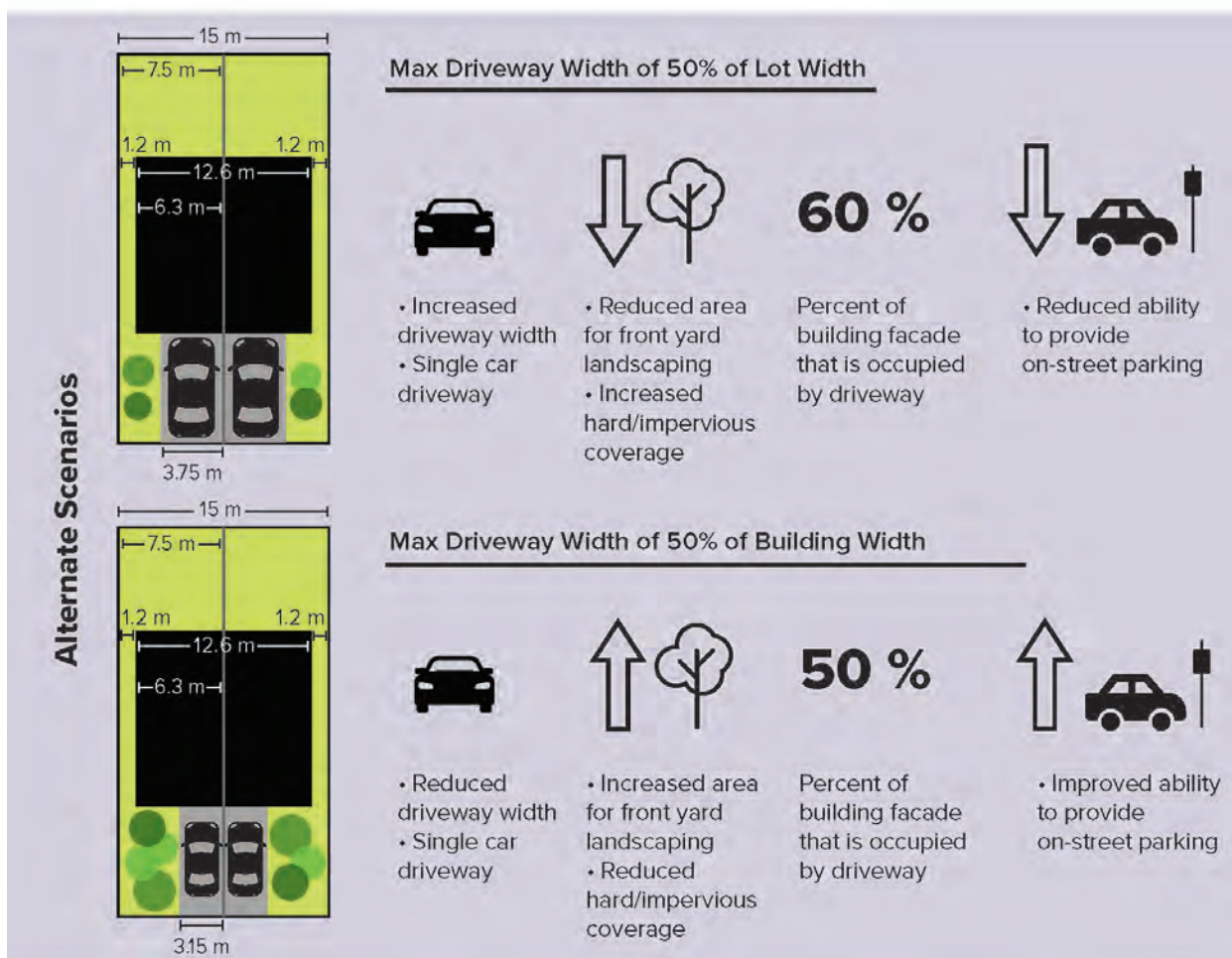
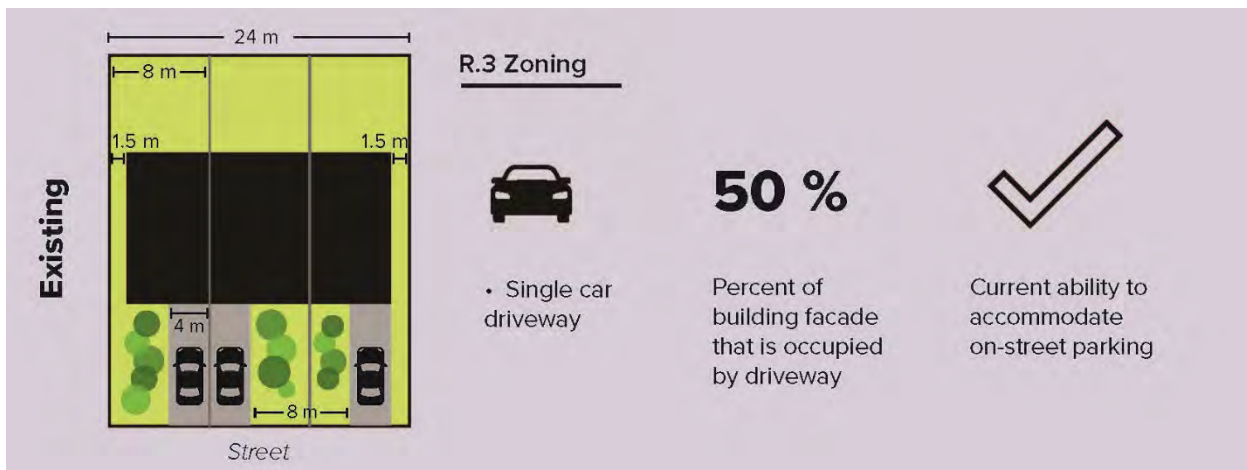


Exhibit 9-14 illustrates two alternate scenarios for an equally sized lot should driveways be either regulated as a percentage of the overall lot frontage or as a percentage of the width of the dwelling.

If the driveway was permitted to be 50% of the overall lot width, a driveway of up to 3.75 metres in width would be permitted which provides functional space for a single car wide driveway. This would result in a driveway slightly wider than what is currently permitted by the Zoning By-Law. A driveway with 3.75 metres of width would occupy 60% of the front façade of a dwelling, which is 10% higher than the recommended threshold established in the City's Urban Design Manual.

If the maximum driveway width was limited to 50% of the width of the dwelling, adequate space would still be available for a single car wide driveway, while additional space would be provided for front yard landscaping, and less of the yard would be impervious / hard surfaced. Further, narrower driveways would result in increased potential for on-street parking throughout the neighbourhood.

Exhibit 9-15: Existing R.3 Zoning Driveway Regulations (Street Townhouses)



It is again noted that the existing R.3 zone regulates driveways in a two-fold manner, being restricted to 50% of the front yard or to the width of the garage (whichever is lesser). Exhibit 9-15 above illustrates how an R.3 zoned lot with 8 metres of frontage would function should a driveway width of 4 metres be constructed (4 metres being 50% of the lot / yard width). In this example, the driveway would permit a one-car wide driveway, which would make up 50% of the front façade of the building once required side yard setbacks are applied, which aligns with the 50% target set out in the City's Urban Design Manual.

Exhibit 9-16: Implications of Wider Driveways in the R.3 Zone (Street Townhouses)



Exhibit 9-16 considers the implications of permitting wider driveways for Street Townhouses in the R.3 zone. In both the 60% and 75% scenarios, the amount of landscaped area and the ability to provide on-street parking would be reduced, whereas the percentage of the building façade occupied by a driveway and potentially a garage would be increased beyond the thresholds established by the Urban Design Manual and Built Form Guidelines for Townhouses and Mid-Rise Buildings.

In the 60% scenario, no additional driveway parking would be generated despite the higher permitted widths, whereas in the 75% scenario two additional off-street parking spaces could be provided. In both instances however the amount of hardscape and impervious surfaces would increase, resulting in more stormwater runoff from the site.

As highlighted in Exhibit 9-9 to Exhibit 9-16, driveway widths affect various lot performance standards, including:

- Landscaped coverage: larger parking areas reduce the amount of a lot that can be used for landscaping and tree planting.
- Runoff and Infiltration: larger parking areas increase stormwater runoff and reduce the amount of on-site infiltration due to an increase in impervious / hard surfaces.
- Aesthetic and Streetscaping: While driveways can be designed to be aesthetically pleasing, wider driveways can dominate streetscapes and detract from the pedestrian experience.
- On-Street Parking: Larger driveways reduce the space between driveways, which in turn can reduce the availability / possibility of on-street parking.

As a principle, from a conventional urban design perspective, a driveway and associated garage should generally be limited to 50% of the width of a dwelling to ensure that the driveway does not dominate the streetscape.

Exhibit 9-17 summarizes the existing minimum lot frontages and existing maximum driveway widths for the City of Guelph's residential zones and highlights the maximum portion of the lot frontage that could be constructed for a driveway.

Exhibit 9-17: Minimum Lot Frontages and Maximum Lot Widths in R.1, R2 and R3 Zones

Zone	Maximum Driveway Width	Minimum Lot Frontage	Percentage of Lot Frontage Permitted for Driveway Use
R.1A	7.5 metres	18 metres	42%
R.1B	6.5 metres	15 metres	43%
R.1C	6 metres	12 metres	50%
R.1D	5 metres	9 metres	55%
R.2	3.5 metres	7.5 metres	46%
R.3	50% of front yard	6 metres	50%

For larger lots within the R.1A zone, the maximum driveway width of 7.5 metres would equate to approximately 42% of the minimum lot width requirements of the zone. For small lots within the R.1D zone, this equates to approximately 55% of the total minimum lot width.

While the permitted driveway widths generally equate to 55% or less of the overall lot frontage, once side yard setbacks are considered, the permitted driveway widths take up a greater proportion of the actual width of a dwelling that could be constructed. For example:

- In the R.1A zone a minimum side yard of 1.5 meters is required on both sides of a dwelling that is two storeys or less (2.4 metres is required on

both sides of a dwelling taller than two storeys) measured from the lot line. In this instance, should a lot have 18.0 metres of frontage the maximum width of a permitted dwelling would be limited to a maximum of 13.2 metres (18 metres – 2.4 metres – 2.4 metres = 13.2 metres). In this case, should a 7.5-metre wide driveway be constructed it would equate to 57% of the width of the dwelling.

- In the R.1B zone a minimum side yard of 1.5 metres is required on both sides of a dwelling that is two storeys or less (2.4 metres is required on both sides of a dwelling taller than 2 storeys) measured from the lot line. In this instance, should a lot have 15.0 metres of frontage the maximum width of a permitted dwelling would be limited to a maximum of 10.2 metres (15 metres – 2.4 metres – 2.4 metres = 10.2 metres). In this case, should a 6.5-metre wide driveway be constructed it would equate to 64% of the width of the dwelling.
- In the R.1C zone a minimum side yard of 1.2 metres is required on both sides of a two-storey dwelling measured from the lot line. In this instance, should a lot have 12 metres of frontage the maximum width of a permitted dwelling would be limited to a maximum of 9.6 metres (12 metres – 1.2 metres – 1.2 metres = 9.6 metres). In this case, should a 6.0-metre wide driveway be constructed it would equate to 63% of the width of the dwelling.
- In the R.1D zone a minimum side yard of 0.6 metres is required on both sides of a dwelling measured from the lot line. In this instance, should a lot have 9.0 metres of frontage the maximum width of a permitted dwelling would be limited to a maximum of 7.8 metres (9 metres – 0.6 metres – 0.6 metres = 7.8 metres). In this case, should a 5.0-metre wide driveway be constructed it would equate to 65% of the width of the dwelling.
- In the R.2 zone a minimum side yard of 1.2 metres is required on both sides of a dwelling measured from the lot line. In this instance, should a lot have 7.5 metres of frontage the maximum width of a permitted dwelling would be limited to a maximum of 6.3 metres (7.5 metres – 1.2 metres = 6.3 metres). In this case, should a 3.5-metre wide driveway be constructed it would equate to 55% of the width of the dwelling.

Based on this analysis, while the existing Zoning By-Law generally limits driveway widths for single-detached and semi-detached dwellings to approximately 50% of a lot's frontage, functionally these same regulations permit driveway widths generally exceeding 60% of the width of a dwelling that could be developed on a given property. This conflicts with the direction of the City's Urban Design Manual and conventional urban design principles which generally direct that driveways and garages should be generally limited to 50% of the width of the dwelling.

Based on the above, it is recommended that the City of Guelph move towards a hybrid approach to regulating driveway widths, whereby a driveway would be

limited to 50% of the width of a dwelling up to an upward limit. Recommended regulations are summarized in Exhibit 9-18:

Exhibit 9-18: Proposed Maximum Driveway Width Standards

Zone	Existing Maximum Width	Proposed Regulation
R.1A	7.5 metres	50% of width of dwelling or 7.5 metres, whichever is lesser.
R.1B	6.5 metres	50% of width of dwelling or 6.5 metres, whichever is lesser.
R.1C	6 metres	50% of width of dwelling or 6 metres, whichever is lesser.
R.1D	5 metres	50% of width of dwelling or 5 metres, whichever is lesser.
R.2	3.5 metres	50% of width of dwelling or 3.5 metres, whichever is lesser.
R.3	50% of front yard or width of garage	No change proposed (consistent with the City of Guelph's Built Form Guidelines for Townhouses and Mid-Rise Buildings).

It is noted that should the proposed regulations be implemented by the City of Guelph through its Zoning By-law review, many lots throughout the City may feature driveway widths that exceed the proposed new regulations. In order to minimize 'non-conforming' situations, it is recommended that the City stipulates in its Zoning By-law that the width regulations apply on a go-forward basis (following the date of approval of the new / updated Zoning By-Law) and that nothing in the Zoning By-Law is intended to preclude the re-paving / re-surfacing of legally existing driveways.

10 Garage Dimensions

This Section of the Report reviews the existing City of Guelph standards relating to garage dimensions considers how other municipalities have regulated garages for low-density residential uses, and makes recommendations with regard to the same.

10.1 Existing By-law Standards

The City of Guelph's existing Zoning By-Law does not establish standards or requirements relating to garage dimensions, save for Section 5.1.2.11 of the Zoning By-law which provides that a garage cannot exceed 55% of the width of a lot for lots less than 12 metres in width.

Notwithstanding the lack of Zoning By-Law regulations relating to the dimension of garages, it is noted that both the City's Urban Design Manual and Built Form Standards for Townhouses and Mid-Rise Buildings both set out design guidance relating to the size of garages:

Exhibit 10-1: Garage Dimension Design Criteria

Document	Policy / Design Direction
Urban Design Manual	The width of garages should be limited to ensure that garages do not dominate the streetscape. Generally, front-facing garages should be no wider than half the width of the house.
Built Form Standards for Townhouses and Mid-Rise Buildings	Garages should be no wider than 50% of the width of unit frontage.

It is noted both the Urban Design Manual and Built Form Standards for Townhouses and Mid-Rise Buildings both direct that garages should generally be limited to 50% of the width of a dwelling. These guidelines are consistent with the recommendations set out in Section 9.3 of this Report which propose to limit the width of driveways to half of the width of a dwelling.

10.2 Comparison of Municipal Standards

Out of the comparable municipalities reviewed, four municipalities speak to the matter of garage dimensions, being the Town of Oakville, City of Burlington, City of Waterloo, and City of Kitchener (draft Zoning By-Law).

The Town of Oakville's Zoning By-Law determines the maximum area of a garage based on the frontage of the property. The Zoning By-Law provides that for detached dwellings on lots having less than 12.0 metres in lot frontage, the maximum total floor area for a private garage shall be 28.0 square metres. For

detached dwellings on lots shaving greater than or equal to 12.0 metres in lot frontage, the maximum total floor area for a private garage shall be 45.0 square metres.

The City of Burlington's Zoning By-law provides minimum internal dimensions for private garages, which are 6.0 metres in depth, 3.0 metres in width, and 2.0 metres in height. Minimum internal dimensions for unobstructed areas within private garages are also provided, which are 5.5 metres in depth, 3.0 metres in width, and 2.0 metres in height.

The City of Waterloo's Zoning By-Law generally limits garages to 2 cars in width and only permits three-car garages in certain specific situations and specific zones (R3). The Zoning By-Law provides that a house cannot contain a three-car garage unless it has at least 18.9 metres of frontage, and so long as the garage does not exceed 58% of the front façade of the building. Additionally, the City of Waterloo limits the number of private garages for semi-detached and townhouse units to one private garage per dwelling unit.

The City of Kitchener's draft residential parking standards propose that for lots narrower than 12.1 metres in width, garages are limited to 3.6 metres in width, which functionally would limit the width of the garage to a single car. For lots between 12.2 metres and 20.2 metres in width, a maximum garage width of 6.7 metres is proposed, which would functionally limit the width of the garage to 2 cars. Lots with over 20.2 metres of frontage can have a garage up to 10.1 metres in width, which functionally limit the width of the garage to 4 cars.

In terms of interior dimensions of garages, most of the comparable municipalities have established obstructed parking standards. These obstructed parking dimensions are generally wider and longer than standard parking dimension requirements, providing additional manoeuvring space within garages.

10.3 Recommendations

With the exception of Section 5.1.2.11 of the Zoning By-law which provides that a garage cannot exceed 55% of the width of a lot for lots less than 12 metres in width, the City of Guelph's existing Zoning By-law is silent on the matter of garage dimensions residential uses.

In recent years, the City of Guelph has adopted urban design guidelines and standards which generally direct that garages should be proportional to the width of a dwelling and should not detract or dominate the streetscape.

Specifically, the Urban Design Manual directs that "the width of garages should be limited to ensure that garages do not dominate the streetscape. Generally, front-facing garages should be no wider than half the width of house." This is consistent with emerging trends and best practices adopted or contemplated by many comparable municipalities.

The City's Urban Design Manual also directs that "lots narrower than 9.0 metres should generally be serviced by rear lanes to minimize the impact of driveways, garages and parked cars on the pedestrian environment and character of

communities.” This demonstrates the City’s preference that residential streets be designed to prioritize the pedestrian experience.

Based on our review of the City’s Urban Design Manual, the approaches of comparable municipalities, and other observed best practices, we recommend that the City introduces new regulations to limit the size and dimensions of private garages to functionally restrict narrow lots to single car garages and to encourage the use of rear-lane accessed garages where possible, as detailed in Exhibit 10-2. As evident, the recommended garage width regulations for attached garages are closely aligned with the maximum driveway width recommendations set out in Exhibit 10-2.

Exhibit 10-2: Proposed Attached Garage Width Regulations by Zone

Zone	Existing Maximum Width	Proposed Regulation
R.1A	NA	50% of width of dwelling or 7.5 metres, whichever is lesser.
R.1B	NA	50% of width of dwelling or 6.5 metres, whichever is lesser.
R.1C	55% of lot width for lots less than 12 metres in width	50% of width of dwelling or 6 metres, whichever is lesser.
R.1D	55% of lot width for lots less than 12 metres in width	50% of width of dwelling or 5 metres, whichever is lesser.
R.2	55% of lot width for lots less than 12 metres in width	50% of width of dwelling or 3.5 metres, whichever is lesser.
R.3	55% of lot width for lots less than 12 metres in width	50% of width of dwelling or 3.5 metres, whichever is lesser.

In addition to the above, it is recommended that the maximum garage width regulations do not apply to lots accessed by a rear lane. In such instances where garages are accessed by a rear lane, it is recommended that garages be limited to 6.5 metres in width which would functionally provide for a two-car wide garage.

It is noted that should the proposed regulations be implemented by the City of Guelph through its Zoning By-law review, many lots throughout the City may feature garage widths that exceed the proposed new regulations. In order to minimize ‘non-conforming’ situations, it is recommended that the City stipulate in its Zoning By-law that the width regulations apply on a go-forward basis (following the date of approval of the new / updated Zoning By-Law).

11 Garage Projections

This Section of the Report reviews the existing City of Guelph standards relating to garage projections (i.e., the location of the garage in relation to the associated dwelling), considers how other municipalities have regulated garages for low-density residential uses, and makes recommendations with regard to the same.

11.1 Existing By-law Standards

The City's Zoning By-Law is currently silent on the matter of garage projections for residential zones save for in the older built-up area, which stipulates that attached garages shall not project beyond the main front wall of a building unless the projection is adjacent to (and does not extend beyond) a covered / roofed porch, in which case the garage can project to a depth equal to the porch depth to a maximum of 2 meters. It is again noted that the Zoning By-law also requires parking to be setback 6 metres from the street line, which limits the siting of garages to beyond that point.

This direction for the older built-up area aligns with the City's Urban Design Manual (Volume 2) which provides that garages should not project beyond the main front wall of the building to promote "eyes on the street."

11.2 Comparison of Municipal Standards

Based on a review of comparable municipalities, it was noted that most Zoning By-Laws include regulations limiting or prohibiting garage projections beyond the front façade of the habitable portion of a dwelling.

The Town of Oakville's Zoning By-law does not permit private garages to project more than 1.5 metre beyond the wall of any portion of the building containing a residential use. This regulation only applies to the first storey of a building and for street fronting portions of a building.

The City of Burlington's Zoning By-law does not contemplate garage projections, while the City of St. Catharines' Zoning By-law only includes regulations for garage projections in site-specific special provisions.

The City of Waterloo's Zoning By-law states that the private garage may expand past the habitable floor spaces on the first storey by a maximum of 1.8 metres if a covered front porch is constructed with a minimum depth of 1.2 metres.

Within the City's older residential neighbourhoods, specific regulations related to garage projections apply. These regulations prohibit an attached garage associated with a single detached dwelling, duplex dwelling, semi-detached house, semi-detached duplex house, and street townhouse dwelling from projecting beyond the front façade of the habitable portion of the dwelling.

11.3 Recommendations

Consistent with the direction of the City's Urban Design Manual and the approaches taken by several comparable municipalities, it is recommended that

the City introduce new regulations to restrict garage projections beyond the front façade of dwellings to mirror the requirements implemented within the older built-up area.

Specifically, we recommend that regulations be implemented to prohibit new garage projections beyond the habitable portion of a dwelling unless a roofed porch is provided where a garage may project to a depth equal to the porch depth to a maximum of 2 meters.

12 Driveway Material Requirements

This Section of the Report discusses the City of Guelph's existing driveway material requirements compared to those of municipalities considered in the Phase 1 portion of this study and makes recommendations with regard to the same.

12.1 Existing By-law Standards

Section 4.13.3.3 of the City's existing Zoning By-Law establishes standards for the surface treatment of parking areas. Specifically, the Zoning By-Law directs that:

- The surface of every parking area and driveway in every zone shall be constructed with gravel or other stable surface and treated so as to prevent the raising of dust or loose particles and drained so as to prevent the flow of surface water onto adjacent lands.
- The surface of every parking area and driveway located in any front or exterior side yard of any lot in an R.3, R.4, or non-residential zone, shall be paved with asphalt, concrete or paving stones.
- The surface of every parking area or driveway located in any yard in a non-residential zone which is located within or adjacent to a residential zone shall be paved with asphalt, concrete or paving stones.

It is noted that lands within an industrial zone are exempt from these requirements.

12.2 Comparison of Municipal Standards

The Town of Oakville's Zoning By-law also requires that all parking areas, loading spaces, and stacked spaces in any Zone other than Environmental Zone or Other Zone are surface treated with asphalt, concrete, interlocking brick, similar hardscaped surface, or other material sufficient to provide stability, prevent erosion, be usable in all seasons, and allow infiltration of water.

In contrast, the City of St. Catharines' Zoning By-law only requires that every parking area, loading space, and driveway must be maintained with a hard surface.

The City of Kitchener has proposed new parking regulations for its residential zones (not yet in effect) which provides that "the driveway shall be comprised of a material that is consistent throughout the driveway, and that is distinguishable from all other ground cover or surfacing including landscaping or walkways within the front yard, interior side yard, or exterior side yard."

The City of Burlington and City of Waterloo do not currently regulate driveway materials through their respective Zoning By-laws.

12.3 Recommendations

The City of Guelph's existing Zoning By-Law provides limited direction on the materials used for the construction of driveways, parking spaces and loading areas. For instance, for residential uses, the Zoning By-Law provides "that residential driveways be constructed with gravel or another stable surface treatment in order to prevent the raising of dust / loose particles and drained in order to prevent the flow of surface water onto adjacent lands."

Based on our review of comparable municipalities, it was found that approaches vary considerably on the amount of direction provided within Zoning By-laws relating to the type of materials used for driveway and parking construction. Some municipalities provide specific direction on the types of materials to be used, while others are silent on the matter.

Despite the variation from jurisdiction to jurisdiction, two common requirements for driveway materials are:

- That the driveway to be differentiated from the remainder of the yard; and,
- That it be constructed with a hard surface.

Based on the foregoing, it is recommended that the City retain its current material requirements for driveways and additional guidance be set out within the City's Site Plan Procedures and Guidelines so as to provide flexibility in which materials are used.

13 Driveway and Parking Locations

This Section of the Report discusses the City of Guelph's existing driveway location requirements compared to those of municipalities considered in the Phase 1 portion of this study and makes recommendations with regard to the same.

13.1 Existing By-law Standards

Section 4.13.1 of the Zoning By-law provides that "every off-street Parking Area shall be located on the same Lot as the Use requiring the parking and shall not infringe on or obstruct any required Loading Spaces."

This Zoning By-law provides additional locational criteria for various different zone categories, as summarized in Exhibit 13-1.

Exhibit 13-1: Location of Parking - Zone Specific Standards

Zone	Parking Area Locational Requirement
R.1, R.2, R.3B	The required parking shall be provided a minimum of 6.0 metres from the street line and to the rear of the front wall of the main building
R.3A, R4	Parking may be provided in the side or rear yard, provided that no parking space is within 3.0 metres of any lot line, only visitor parking may be located in the front or exterior yard provided that it is to the rear of the required front or exterior yard, must not be located within 3.0 metres of a building entrance or any window of a habitable room
C.1, NC, RC, SC, OR, CR, D, P, I	Parking may be located within any yard provided that no part of a parking space is closer than 3.0 metres to any street line
Industrial	Parking may be developed in stages in accordance with the approved site plan, may be located in the front yard or exterior side yard only if no part of a parking space is within 3 metres of a street line and if the parking area is screened from view of any street with suitable landscaping (sod, trees, shrubbery, berms).

It is noted that the City's Zoning By-law provides that required parking spaces may be provided within Garages / Carports (some municipalities do not consider Garage / Carport parking spaces towards the satisfaction of parking requirements).

Section 4.13.3.4 of the Zoning By-law provides additional locational regulations for Enclosed Parking Areas / Parking Structures. Specifically, the Zoning By-law provides that above-ground parking structures shall conform to the setback requirements of the zone where they are situated (4.13.3.4.1);

- 4.13.3.4.2 Nothing in this By-law shall prevent the location of an underground Parking Area in any part of a required Side Yard or Rear Yard on a Lot provided such underground Parking Area is not within 3 metres of a Lot Line.

It is noted that the existing General Regulations of the Zoning By-law do not consider or permit shared parking or parking agreements between sites (i.e., the provision of the parking requirements of a site on another property by way of a legal agreement).

13.2 Comparison of Municipal Standards

Similar to the City of Guelph's Zoning By-law, the City of Burlington's Zoning By-law has various locational requirements for driveways based on use and zoning. For examples, parking may only be located in a side / rear yard for office uses in residential zones.

The Town of Oakville's Zoning By-law established driveway setbacks based on whether driveways are detached or where they are located in relation to the front line and flankage lot line.

While the City of St. Catharines' Zoning By-law identifies locational requirements for driveways within special policy areas, general locational requirements are not provided.

In contrast, the City of Kitchener's Zoning By-law states that a driveway should be located so as to lead directly from a street or lane to a required parking space, either within a garage or outside. Further specifications are provided based on the type of dwelling and whether the garage is detached.

13.3 Review of City of Guelph Design Guidelines

As part of the Phase 1 background review undertaken for this study, various City design guidelines and concept plans were reviewed.

Several of these documents set out design guidance relating to the location of parking which should be implemented in the City's Zoning By-Law, including:

Exhibit 13-2: Design Criteria for Parking, Driveway and Loading Areas

Document	Design guidance
Built Form Standards for Mid-Rise Buildings and Townhouses	<ul style="list-style-type: none"> Underground parking does not require a street setback although it should not impede soil volumes required for tree planting (i.e. medium trees). Side yard parking should not exceed more than 50% of the street line, to ensure that surface parking does not dominate the street. Loading bays, waste service areas and building utilities / mechanical equipment should be located within a building. If permitted outside a building, they shall not be located immediately adjacent to an intersection, will be directed away from a public street, park, river, public open space or residential area, or adequately screened if this is not possible. For surface parking lots, a minimum 3-metre setback should be provided between building walls and a parking space to allow for landscaping and public realm elements.
Site Plan Procedures and Guidelines	<ul style="list-style-type: none"> A 3-metre wide minimal perimeter landscape planting area shall be provided within the subject property for all parking lots.
Urban Design Manual (Vol. 2)	<ul style="list-style-type: none"> The location of vehicular parking and servicing for mid-rise buildings should not be permitted in the front or exterior side yard in order to create a pedestrian-friendly environment. Vehicular parking for high-rise buildings should be required below grade with a limited percentage of surface parking permitted for visitor parking. Where appropriate, structured parking should be permitted and integrated into the building design. The width of garages should be limited to ensure that garages do not dominate the streetscape. Generally front facing garages should be no wider than half the width of house. Garages should not project beyond the main front wall of the building to promote “eyes on the street.” Vehicular parking spaces should not be located in the front or exterior side yard of Industrial, Corporate Business Park and Institutional / Research Park properties. Drive-through facilities, where permitted by zoning, should be required to locate in rear and side yards and provide a buffer strip between the drive-through lane and the adjacent property.

13.4 Recommendations

Based on our review of existing standards and those of comparable municipalities, we recommend that the City should build upon its existing locational requirements and include the following additional requirements in its Zoning By-Law:

- Require a 0-metre setback for underground parking facilities.

- For surface parking lots for townhouse and multiple residential developments, a minimum 3 metre setback should be provided between building walls and a parking space to allow for landscaping and public realm elements.
- Parking should be setback a minimum of 6 metres from the front or exterior side lot line and 3 metres from any other lot line to provide opportunities for perimeter landscape planting area shall be provided from the street line for all surface parking lots.
- Parking and servicing for mid-rise buildings shall not be permitted in the front or exterior side yard.
- The majority of vehicular parking spaces shall not be located in the required front or exterior side yard of Industrial, Corporate Business Park and Institutional / Research Park properties. A portion may be permitted in the front yard.
- Drive-through facilities, where permitted by zoning, should be required to locate in rear and side yards. Alternate design recommendations are set out in the City of Guelph's Comprehensive Zoning Bylaw Discussion Paper.

Note that an urban design consultant has been retained by the City of Guelph to provide further direction and recommendations in regard to parking lot design requirements set out in the City's Zoning By-law.

14 Parking Space Dimensions

This Section of the Report considers the City of Guelph's existing standard dimensions for parking spaces compared to those of comparable municipalities. This Section also makes recommendations on where updates to the City's Zoning By-Law should be considered with regard to the size and type of parking space.

14.1 Existing By-law Standards

Section 4.13.3.2 of the Zoning By-law establishes minimum dimensions for parking spaces in the City of Guelph, which are summarized in Exhibit 14-1.

Exhibit 14-1: Parking Space Dimension Requirements

Use	Dimension Requirements
Exterior Parking Space – Residential Use	2.5 metres x 5.5 metres
Garage / Carport Parking Space – Residential Use	3.0 metres x 6.0 metres
Non-Residential Parking Space	2.75 metres x 5.5 metres
Accessible Parking Space	4.0 metres x 5.5 metres

In addition to the above, based on our review, it is noted that the current Zoning By-law does not contemplate or establish dimension requirements for the following:

- Parallel parking spaces;
- Tandem parking spaces;
- Angled parking spaces; and / or,
- Small vehicle parking spaces.

It is also noted that the dimensions for Accessible Parking Spaces are not in alignment with current Design of Public Spaces Standard as set out in the AODA, which contemplates "Type A" and "Type B" parking spaces. A "Type A" parking space has a wider width requirements and signage which identifies the space as "van accessible". A "Type B" parking space is considered a standard accessible parking space.

14.2 Comparison of Municipal Standards

Required parking space dimensions vary between the comparable municipalities examined in this Report and the City of Guelph. This subsection will examine parking space dimension requirements for standard parking spaces, obstructed parking spaces, tandem parking spaces, and parallel parking spaces in the comparable municipalities examined in this Report and the City of Guelph.

14.2.1 Parking Spaces

Exhibit 14-2 below compares requirements between the comparable municipalities and the City of Guelph for parking spaces which are not obstructed parking spaces, end parking spaces, parallel parking spaces, tandem parking spaces, barrier free parking spaces, structured parking spaces, or compact vehicle parking spaces. Both the required length and width of parking spaces prescribed by the Zoning By-law is similar to what is required in the other municipalities.

Exhibit 14-2: Standard Parking Space Dimension Requirements by Municipality

Municipality	Standard Parking Space Requirements
Guelph	Width: 2.75 m Length: 5.5 m
Burlington	Width: 2.75 m Length: 6.0 m
Kitchener	Width: 2.6 m Length: 5.5 m
Oakville	Width: 2.7 m Length: 5.7 m
St. Catharines	Width: 2.6 m Length: 5.2 m
Waterloo	Width: 2.8 m Length: 5.5 m

14.2.2 Obstructed Parking Spaces

Exhibit 14-3 below compares Zoning By-law requirements for obstructed parking space dimensions between the City of Guelph and other comparable municipalities examined in this Report.

Exhibit 14-3: Garage / Obstructed Parking Space Dimension Requirements by Municipality

Municipality	Garage / Obstructed Parking Space Dimensions (obstacles on both sides)
Guelph	Width: 3.0 m Length: 6.0 m
Burlington	Not applicable
Kitchener	Width: 3.0 m Length: 5.5 m
Oakville	The minimum required width of the parking space will be increased by 0.3 metres per side that is obstructed.
St. Catharines	Obstructed on one side: Width: 3.0 m Length: 5.2 m Obstructed on two sides: Width: 3.5 m Length: 5.2 m
Waterloo	Width: 2.8 m Length: 5.5 m

14.2.3 End Parking Spaces

Exhibit 14-4 below compares Zoning By-law requirements for minimum end parking space dimensions. The City of Guelph's Zoning By-law refers to end spaces as "exterior spaces". The City of Burlington's Zoning By-law does not specify minimum dimensions for end spaces. The Town of Oakville's Zoning By-law provides dimension requirements for parking spaces in which a wall, column, or other obstruction is located abutting or within any parking spaces, as described under Obstructed Parking Spaces Section 14.2.2. Similarly, both the City of St. Catharines' and the City of Waterloo's Zoning By-laws provide dimension requirements for parking spaces abutting any wall, column or structure on both sides and one side, as described above.

Exhibit 14-4: End Parking Space Dimension Requirements by Municipality

Municipality	End Space Dimensions
Guelph	Width: 2.75 m Length: 5.5 m
Burlington	Not applicable.
Kitchener	Width: 2.5 m Length: 5.5 m
Oakville	The minimum required width of the parking space will be increased by 0.3 metres per side that is obstructed.
St. Catharines	Obstructed on one side: Width: 3.05 m Length: 5.2 m Obstructed on two sides: Width: 3.5 m Length: 5.2 m
Waterloo	When one side abuts a wall or column: Width: 3.0 m Length: 5.5 m When both sides abut a wall or column: Width: 3.0 m Length: 5.5 m

14.2.4 Parallel Parking Spaces

Exhibit 14-5 below compares Zoning By-law requirements for parallel parking space dimensions between the comparable municipalities examined in this Report. The City of Guelph, City of Burlington and the the City of St. Catharines' Zoning By-laws do not currently provide dimension requirements for parallel parking spaces.

Exhibit 14-5: Parallel Parking Space Dimensions and Rates for Comparable Municipalities

Municipality	Parallel Parking Space Dimension Requirements
Guelph	<u>N/A</u>
Burlington	Not applicable
Kitchener	Width: 2.4 m Length: 6.7 m
Oakville	Width: 2.7 m Length: 7.0 m
St. Catharines	Not applicable
Waterloo	Width: 2.8 m Length: 6.5 m

14.2.5 Tandem Parking Spaces

The City of Guelph's Zoning By-law does not currently contemplate tandem parking spaces (except for accessory apartments). Exhibit 14-6 below compares Zoning By-law requirements for tandem parking space dimensions between the comparable municipalities examined in this Report.

Exhibit 14-6: Tandem Parking Space Dimensions and Rates for Comparable Municipalities

Municipality	Tandem Parking Space Dimension Requirements
Guelph	Not applicable
Burlington	Not applicable
Kitchener	Not applicable
Oakville	<u>Within a private garage:</u> Width: 3.0 m Length: 5.7 m <u>Outside a private garage:</u> Width: 2.7 m Length: 11.7 (minimum cumulative dimensions) per
St. Catharines	Not applicable
Waterloo	Width: 2.8 m Length: 6.0 m (when 45-degree angle to the driveway, drive aisle, or street is provided)

The City of Kitchener's Zoning By-law states that tandem parking may be used to satisfy parking requirements and does not limit the number of parking spaces which are permitted to be provided in tandem, subject to further requirements of this By-law. Minimum parking space dimensions for tandem parking spaces are not required. The Town of Oakville's Zoning By-law also states that tandem parking spaces are permitted for any dwelling.

The City of St. Catharines Zoning By-law prohibits tandem parking except for where noted by this By-law.

14.2.6 Barrier Free Parking Stalls

Barrier-free parking is discussed in detail under Section 16.

14.2.7 Structured Parking Spaces

The Zoning By-laws of the City of Guelph, the City of Burlington, the Town of Oakville, the City of St. Catharines, the City of Kitchener, and the City of Waterloo do not currently provide different dimension requirements for parking spaces within parking structures.

14.2.8 Compact Vehicle Parking Spaces

The City of Guelph's existing Zoning By-law does not currently contemplate compact parking stalls.

Some municipalities are choosing to permit compact parking spaces which are narrower than standard spaces and are an effective way to reduce the parking footprint while adhering to minimum parking supply requirements. Several municipalities in North America have adopted compact parking provisions that state the allowable amount of compact parking for a lot and the design guidelines for compact parking spaces.

14.3 Recommendations

14.3.1 Parking Spaces

The City of Guelph currently establishes minimum parking space dimensions for four types of parking spaces, being:

- Exterior Parking Space – Residential Uses (2.5 metres x 5.5 metres)
- Garage / Carport Parking Space – Residential Use (3.0 metres x 6.0 metres)
- Non-Residential Parking Space – (2.75 metres x 5.5 metres)
- Accessible Parking Space – (4.0 metres x 5.5 metres)

Based on our analysis of comparable municipalities, the current size requirements for exterior (residential), garage parking spaces, and non-residential parking spaces are similar to those of comparable municipalities. Accordingly, no changes to these standards are recommended.

Notwithstanding the above, we would recommend that additional direction be provided with regards to garage parking spaces. While the minimum dimensions for garages are consistent with comparable municipalities, we would recommend that these dimensions be exclusive of any obstruction, such as stairs within a garage. Should the City wish to ensure adequate space for refuse storage (green bins, recycling, and garbage), an additional 0.5 metres of length could be required which result in an interior dimension of 3.0 metres x 6.5 metres.

It is further recommended that underground parking must comply with the recommended dimensions for non-residential parking spaces. Should underground parking spaces be obstructed in any capacity, it is recommended that these spaces comply with the recommended dimensions for obstructed parking spaces.

14.3.2 Obstructed Parking Spaces

The City of Guelph's Zoning By-Law currently establishes a parking space dimension of 3.0 metres x 6.0 metres for obstructed parking spaces (within a garage / carport). This standard is consistent with the standards established of the comparable municipalities reviewed and provides for additional space for manoeuvring in and out of vehicles. Accordingly, it is recommended that the City retain this standard and apply it to car parking within a garage or adjacent to a wall or other obstruction.

14.3.3 End Parking Spaces

The City of Guelph's Zoning By-Law establishes end parking space dimensions of 2.75 metres by 5.5 metres for standard parking stalls and 2.4 metres by 5.5 metres for end parallel parking stalls in Section 4.13.3.2. For Residential uses, the Zoning By-law requires minimum end parking space dimensions of 2.5 metres by 5.5 metres. These dimensional requirements are similar to those of comparable municipalities and the requirements set out in the City's Site Plan Procedures and Guidelines. Accordingly, these requirements are recommended to be retained.

14.3.4 Parallel Parking

The City of Guelph's Zoning By-law currently does not contemplate parallel parking space requirements.

The comparable municipalities examined in the inter-jurisdictional scan have a range in required width of 2.4 metres to 2.8 metres and a range in required length of 6.5 metres to 6.7 metres. The dimensional requirements set out in the City's Site Plan Procedures and Guidelines, which include a required width of 2.6 metres and a required length of 6.5 metres, are similar to the dimensions required in these comparable municipalities. As a result, we recommend that the parallel parking space standards set out in the Site Plan Procedures and Guidelines be adopted into the City of Guelph's Zoning By-law.

14.3.5 Tandem Parking Space Dimensions

The City of Guelph's Zoning By-Law does not specifically contemplate tandem parking spaces, nor does the City's Urban Design Manual or Site Plan Procedures and Guidelines. Our inter-jurisdictional review has revealed that while some municipalities have specific standards for tandem parking, the majority of those reviewed do not establish regulations for such parking arrangements.

Of the comparable municipalities, only the cities of Waterloo and Oakville establish specific dimensions for tandem parking, which functionally require the same dimensional parking requirements of standard parking spaces multiplied by the number of parking spaces provided in tandem. Should the City opt to include tandem parking within its Zoning By-Law, we recommend that a similar approach be taken, whereby the same dimensional requirements be required, multiplied by the number of spaces provided in tandem and limit the number of tandem spaces to two.

14.3.6 Barrier Free Parking Stalls

Recommendations regarding the proposed dimensions of barrier-free parking stalls are contained in Section of this Report.

14.3.7 Structured Parking Spaces

While the City of Burlington, City of Kitchener, and the City of Waterloo provide regulations related to below-grade parking structures in their Zoning By-law, these policies pertain to setbacks. Parking space dimensions specifically for below-

grading parking structures have not been set out by any of the comparable municipalities.

Following practices from comparable municipalities which do not explicitly define dimensional requirements for structured parking spaces, we recommend that the same size requirements for standard parking and obstructed parking rates be applied to parking spaces within a parking structure, including below grade parking.

14.3.8 Compact Vehicle Parking Space Dimensions

While none of the comparable municipalities reviewed as part of the inter-jurisdiction scan expressly regulate compact car parking, other jurisdictions elsewhere have specified that a certain proportion of the required parking spaces may be compact. Typically, the maximum allowable portion of a parking lot that can be dedicated to compact parking spaces ranges from 10 to 15% and the widths of these spaces ranges from 2.3 to 2.5 meters. By permitting a portion of the required parking spaces as compact parking stalls, the City of Guelph would support a reduction in the overall footprint of new parking lots (i.e., less pavement required for smaller spaces) and support the use of compact vehicles which typically are more energy-efficient than larger vehicles.

It is recommended that Guelph introduce the following compact parking provisions:

- Compact parking be permitted for up to a maximum of 15% of the required non-residential parking and that those spaces be identified as compact parking spaces through signage or pavement markings.
- Compact spaces should maintain the same length requirements as a general parking space but the width should be reduced by 30 centimeters, resulting in a width of 2.4 metres which would be adequate for a broad variety of compact cars.

15 Drive Aisles

This Section of the Report considers the City of Guelph's existing standards for drive aisle as currently contained in its Zoning By-Law. This Section considers the regulations of comparable municipalities as well as the policy and design criteria set out in the City's Urban Design Manual and Site Plan Procedures and Guidelines as they relate to the design of drive aisles and makes recommendations with regard to the same.

15.1 Existing By-law Standards

The City of Guelph Zoning By-Law provides that "Parking Aisle" means that "a Parking Area which abuts a Parking Space and by which vehicular access is provided to such Parking Space". While a defined term, the Zoning By-Law does not currently contain dimensional requirements for drive aisle save for the requirement that every driveway associated with such Parking Spaces shall have a minimum width for access to a street or lane of 3 metres.

15.2 Comparison of Municipal Standards

The Cities of Waterloo and Kitchener generally require a minimum drive aisle width of 6.1 metres where parking is provided on both sides of the aisle. Where the drive aisle also serves as the fire route, the City of Kitchener's Zoning By-Law requires a wider drive aisle of 7.3 m.

The Town of Oakville's Zoning By-Law provides that the minimum width of an aisle providing access to a parking space within a parking area is 6.0 metres. This aisle width can be decreased to 5.5 metres where the angle of access to the parking space is greater than or equal to 60 degrees.

The City of Burlington and the City of St. Catharines do not establish minimum drive aisle widths in their respective Zoning By-Laws.

15.3 Recommendations

The City of Guelph's Zoning By-Law currently provides limited direction relating to the width / dimensional requirements for drive aisles. It is recommended that the Site Plan Procedures and Guidelines continue to be used to provide direction for drive aisle requirements within the City of Guelph. Drive aisle dimensional requirements are defined in Section 6.0 Vehicle Parking Design of the Site Plan Procedures and Guidelines. We note that these dimensions generally align with those of comparable municipalities based on our review.

16 Barrier-Free Parking Requirements

This Section of the Report considers the existing barrier-free parking requirements contained in the City of Guelph's Zoning By-Law and compares them to current Provincial standards and the rates of comparable municipalities. This Section also includes various recommendations to ensure conformity of the City's Barrier-Free parking standards with applicable law.

16.1 Existing By-law Standards

Section 4.13.5 of the Zoning By-law establishes accessible parking rates, and provides that "in any commercial, institutional, industrial, park or residential R.3A and R.4 Zones, where more than 25 Parking Spaces are required by Section 4.13.4, the required number of Parking Spaces shall include the provision of designated accessible Parking Spaces for the Use of physically disabled persons."

As aforementioned, the currently required dimensions for "special Vehicle Parking Space" is a minimum of 4.0 metres by 5.5 metres. Exhibit 16-1 summarizes the current accessible parking rate as set out in Section 4.13.5.1 of the City's Zoning By-law.

Exhibit 16-1: Required Accessible Parking Spaces

Total Required Parking Spaces	Number of Required Designated Accessible Parking Spaces
2 – 50	1
51 – 200	2
201 – 300	3
301 - 400	4
400+	4 spaces plus 1 additional accessible space per 100 required spaces

These current accessible parking standards (both dimensions and rate requirements) do not conform to the existing requirements of the Accessibility for Ontarians with Disabilities Act (AODA), which contemplates "Type A" and "Type B" parking spaces. A "Type A" accessible parking spaces are required to have a minimum width of 3.4 metres and be identified as "van accessible" with signage. A "Type B" accessible parking space is considered a standard parking space and is required to have a minimum width of 2.4 metres. The Integrated Accessibilities Standard (O. Reg. 191/11 of the AODA) identifies the minimum amount of accessible parking spaces which must be provided by organizations for the use of persons with disabilities, as outlined by Exhibit 16-2 below.

Exhibit 16-2: Required Accessible Parking Spaces in the AODA

Number of Provided Spaces	Minimum Required “Type A” Spaces	Minimum Required “Type B” Spaces
12 or fewer	1	0
13 to 100	4% of total spaces (rounded to the nearest whole number) with an equal number of “Type A” and “Type B” spaces, if an odd number of spaces is provided, the additional space may be “Type B”	
101 to 200	1 of each plus an additional 3% of total spaces (rounded to the nearest whole number) with an equal number of “Type A” and “Type B” spaces, if an odd number of spaces is provided, the additional space may be “Type B”	
201 to 1,000	2 of each plus an additional 2% of total spaces (rounded to the nearest whole number) with an equal number of “Type A” and “Type B” spaces, if an odd number of spaces is provided, the additional space may be “Type B”	
Over 1,000	11 of each plus an additional 1% of total spaces (rounded to the nearest whole number) with an equal number of “Type A” and “Type B” spaces, if an odd number of spaces is provided, the additional space may be “Type B”	

Note that the AODA requires that access aisles are provided for all accessible parking spaces in off-street parking facilities. These access aisles are required to be at least 1.5 metres in width, extend the full length of the parking spaces, and should be marked with high tonal contrast diagonal lines (where the surface is asphalt, concrete, or some other hard surface) to discourage parking in them.

In addition to the foregoing, it is noted that the City’s Facility Accessibility Design Manual sets out guidance and recommendations for accessible parking. The recommendations closely mirror those of AODA and establish additional design criteria for publicly owned lands / facilities.

16.2 Comparison of Municipal Standards

As previously discussed in this Report, Section 4.13.5 of the Zoning By-law establishes accessible parking rates, and provides that “in any commercial, institutional, industrial, park or residential R.3A and R.4 Zones, where more than 25 Parking Spaces are required by Section 4.13.4, the required number of Parking Spaces shall include the provision of designated accessible Parking Spaces for the Use of physically disabled persons.”

Exhibit 16-3 compares the accessible parking space dimensions and accessible parking rates in the City of Guelph with these requirements in the municipalities examined through the inter-jurisdictional review contained in this Report.

Exhibit 16-3: Accessible Parking Space Dimensions and Rates for Comparable Municipalities

Municipality	Accessible Parking Space Dimensions	Accessible Parking Rate (accessible / barrier-free parking spaces)
Guelph	Length: 5.5 metres Width: 4.0 m	2 to 50: 1 51 to 200: 2
Burlington	Width: 2.75 m Area: 16.5 m ²	5 to 50: 1 51 to 90: 2 90+: 3% of required parking spaces
Kitchener	<u>Type A:</u> Length: 5.5 m Width: 4.9 m <u>Type B:</u> Length: 5.5 m Width: 3.9 m	1 to 12: 1 13 to 100: 4% of total number of parking spaces 101 to 200: 1 plus 3% of total number of parking spaces
Oakville	<u>Type A:</u> Length: 5.7 m Width: 3.65 m <u>Type B:</u> Length: 5.7 m Width: 2.5 m	3 to 25: 1 26 to 100: 4% of total number of parking spaces 101 to 200: 1, plus 3% of the total number of parking spaces 201 to 1,000: 2, plus 2% of total number of parking spaces 1,001+: 11, plus 1% of total number of parking spaces
St. Catharines	Length: 5.2 m Width: 4.9 m	1 to 12: 1 13 to 100: 4% of the total number of parking spaces 101 to 200: 3% of the total number of parking spaces
Waterloo	Length: 5.5 m Width: 5.2 m	1 to 25: 1 26 to 50: 2 51 to 75: 3 76 to 100: 4

The City of Burlington's Zoning By-law specifically requires that medical office and institutional uses must provide at least 1 designated accessible parking space. Where out-patient services are provided, at least 10% of the required parking spaces should be designated accessible parking spaces. This By-law also requires that designated accessible parking spaces are located adjacent to delineated accessible parking walkways of at least 2.0 metres in width.

16.3 Recommendations

The City of Guelph's accessible parking rates and dimension requirements do not conform to the Accessibility for Ontarians with Disabilities Act (AODA). As a result, it is recommended that these standards and rate requirements be updated in order to conform to Provincial legislation.

In keeping with what is required through AODA, it is recommended that the Zoning By-law be amended to contemplate "Type A" and "Type B" parking spaces. As per AODA, "Type A" accessible parking spaces should be required to have a minimum width of 3.4 metres and be identified as "van accessible" with signage. A "Type B" accessible parking space should be defined as a standard parking space, which is required to have a minimum width of 2.4 metres.

The Integrated Accessibilities Standard (O. Reg. 191/11 of the AODA) identifies the minimum amount of accessible parking spaces which must be provided by organizations for the use of persons with disabilities, as outlined by Exhibit 16-4 below. It is recommended that the Zoning By-law be amended to, at minimum, conform to the accessible parking rates prescribed by the Integrated Accessibilities Standard.

Exhibit 16-4: Required Accessible Parking Spaces in the AODA

Number of Provided Spaces	Minimum Required "Type A" Spaces	Minimum Required "Type B" Spaces
12 or fewer	1	0
13 to 100	4% of total spaces (rounded to the nearest whole number) with an equal number of "Type A" and "Type B" spaces, if an odd number of spaces is provided, the additional space may be "Type B"	
101 to 200	1 plus an additional 3% of total spaces (rounded to the nearest whole number) with an equal number of "Type A" and "Type B" spaces, if an odd number of spaces is provided, the additional space may be "Type B"	
201 to 1,000	2 plus an additional 2% of total spaces (rounded to the nearest whole number) with an equal number of "Type A" and "Type B" spaces, if an odd number of spaces is provided, the additional space may be "Type B"	
Over 1,000	11 plus an additional 1% of total spaces (rounded to the nearest whole number) with an equal number of "Type A" and "Type B" spaces, if an odd number of spaces is provided, the additional space may be "Type B"	

AODA further requires that access aisles are provided for all accessible parking spaces in off-street parking facilities. These access aisles are required to be at least 1.5 metres in width, extend the full length of the parking spaces, and should

be marked with high tonal contrast diagonal lines (where the surface is asphalt, concrete, or some other hard surface) to discourage parking in them. It is recommended that the Zoning By-law be amended to require access aisles for all accessible parking spaces in off-street facilities with dimensions in keeping with AODA requirements.

17 Electric Vehicle Parking Space Requirements

This Section of the Report examines the emerging trend and requirements for electric vehicle parking spaces and make recommendations with respect to the same.

17.1 Existing By-law Standards

The City of Guelph's Zoning By-law does not currently have a definition for an electric vehicle parking space, nor does it establish regulations for electric vehicle parking.

17.2 Comparison of Municipal Standards

The City of Burlington, City of St. Catharines, and Town of Oakville also do not currently provide electric vehicle parking space requirements in their Zoning By-laws.

The City of Waterloo's Zoning By-law requires that at least 80% of structured parking spaces for apartment buildings, multi-unit residential buildings and mixed used buildings are designed / constructed to be electric vehicle ready (allowing for future installation of a minimum Level 2 Electric Vehicle Charging Device). Surface parking for non-residential uses is required to have between 0 and 4 electric vehicle parking spaces based on the number of non-residential parking spaces at minimum. At least 3% of the total required parking spaces for non-residential uses are required to be electric vehicle parking spaces.

The City of Kitchener's Zoning By-law requires that 20% of parking spaces (if enclosed) are required to accommodate electric vehicle parking, while 15% of parking spaces if outdoor are required to accommodate electric vehicle parking.

17.3 Recommendations

Electric vehicle parking spaces are not currently contemplated by the City of Guelph's Zoning By-law. The City of Guelph may contribute to supporting the increased demand for electric vehicle parking by introducing electric vehicle parking space requirements to their land use planning policies. These requirements will help to reduce barriers to the use of electric vehicles in order to ensure that this option becomes increasingly practical for consumers. The City of Guelph's Community Energy Initiative identifies increasing the share of electric passenger vehicles and commercial vehicles by 2030 as key actions in the "low carbon pathway" to becoming a Net Zero Community by 2050.

The City of Waterloo's Zoning By-law currently requires that 80% of structured parking spaces for apartment buildings, multi-unit residential buildings, and mixed use buildings are designed / constructed to be electric vehicle ready. Surface parking for non-residential uses is required to have between 0 and 4 electric vehicle spaces based on the number of required parking spaces. At a minimum, 3% of the total required parking spaces for non-residential uses are required to be electric vehicle parking spaces. The City of Kitchener's Zoning By-law currently

requires that 20% of parking spaces (if enclosed) are required to have electric vehicle parking, while 15% of outdoor spaces are required to accommodate electric vehicle parking.

Based on the above it is recommended that:

- 20% of the required parking supply for apartment residential and mixed use buildings should accommodate electric vehicle parking by having charging stations installed
- All other required parking spaces within multi-unit residential and mixed use buildings should be designed to accommodate electric vehicle supply equipment in the future.
- At least 10% of indoor or outdoor parking stalls for non-residential uses should also be installed with electric charging station receptacles and an additional 20% should be designed to accommodate electric vehicle supply equipment in the future.

18 Stackable / Hydraulic Lift Parking Requirements

This Section of the Report reviews the emerging technology of stackable / hydraulic lift parking, explores how these systems have been regulated elsewhere, and makes recommendations with regard to how they could be regulated by the City's Zoning By-Law.

18.1 Existing By-law Standards

While stackable / hydraulic lift parking is currently not contemplated by the City of Guelph's Zoning By-law, the City's Downtown Zoning By-law does permit this parking arrangement and counts spaces within these lifts towards the required parking for land uses within the area. The Downtown Zoning By-law defines stackable / hydraulic lift parking as an automated parking system, which refers to "a mechanical system, wholly contained within an enclosed Building or Structure, which moves motor vehicles to a parking space without the vehicle being occupied or operated by a human being."

18.2 Comparison of Municipal Standards

The City of Burlington, City of Kitchener, Town of Oakville, and the City of St. Catharines do not currently contemplate stackable / hydraulic lift parking.

The City of Waterloo's Zoning By-law specifies that stackable / hydraulic lift parking may only be used to satisfy parking requirements if explicitly stated in the Zoning By-law.

18.3 Recommendations

Stackable / hydraulic lift parking is not currently contemplated by the City of Guelph's Zoning By-law, save for within the Downtown area. Stackable parking has been used internationally as a tool for meeting parking requirements while saving space and providing a cost-effective alternate (or supplement) to underground parking.

It is recommended that the City of Guelph permit stackable parking City-wide as it already has within its Downtown area, and that spaces provided in stackable parking count toward the satisfaction of the overall parking supply required for a development.

19 Transportation Demand Management Measures

Transportation Demand Management (TDM) initiatives are commonly used by municipalities to influence travel behaviour by improving and promoting alternative modes of transportation other than single-occupancy vehicles. The reduction of vehicle demand on roads will help to manage parking demand within Guelph, and by extension could further support reduced parking requirement rates outlined in the Zoning By-law. Various TDM measures are discussed in the following subsections, the implementation can help support more sustainable modes of transportation and support a reduction in the number of required parking spaces. Some of these measures can be implemented into the City's Zoning By-law, but many of them are typically not included in the Zoning By-laws, and may be better addressed through municipal design guidelines, or TDM guidelines.

19.1 Bicycle Parking

The City's Zoning By-Law includes bicycle parking requirements within its downtown zones.

The Downtown Zoning By-Law also implemented the following definitions into the Zoning By-Law, which we recommend applying City-wide:

"Bicycle Parking Space" means a Bicycle Parking Space, Long Term and / or a Bicycle Parking Space, Short Term.

"Bicycle Parking Space, Long Term" means an area that is equipped with a bicycle rack or locker that is accessible, secure, weather-protected and for use by occupants or tenants of a Building and is not provided within a Dwelling Unit, suite, or on a Balcony.

"Bicycle Parking Space, Short Term" means an area for the purpose of parking and securing bicycles with a bicycle rack that is accessible for visitors to a Building and is located outdoors or indoors but not within a commercial suite, Dwelling Unit, secured room, enclosure or bicycle locker.

The City of Kitchener, City of Waterloo, City of Burlington, and the City of St. Catharines set out dimensional requirements for bicycle parking spaces in their Zoning By-laws. The City Waterloo's Zoning By-law includes bicycle parking space dimensional requirements for both horizontal and vertical mounted bicycle parking spaces. The City of Kitchener's Zoning By-law also provides dimensional requirements for the access aisle required between bicycle parking stalls in long-term bicycle parking facilities.

All of the municipalities examined in the inter-jurisdictional scan set out minimum bicycle parking rates for different uses contemplated by their Zoning By-laws, which are summarized in Appendix D of this Report. Both the City of Waterloo and the City of Kitchener's Zoning By-laws outline minimum parking rates for both long-term and short-term bicycle parking spaces.

The City of Kitchener's Zoning By-law additionally contemplates regulations for the shower and change facilities which should be provided in conjunction with

long-term bicycle parking stalls, including dimensional requirements and minimum numbers of showers within shower and change facilities.

In addition to the bicycle parking requirements for downtown, we note that the City's Site Plan Procedures and Guidelines and Cycling Master Plan establish principles and standards for the provision of bicycle parking for certain uses throughout the City. These rates are outlined in Exhibit 19-1 below.

Exhibit 19-1: Bicycle Parking Rates from the Site Plan Procedures and Guidelines

Use	Recommended Bicycle Parking Rates
Multiple dwellings (apartment, stacked and cluster townhouses)	1 per dwelling unit that does not have an exclusive use garage, plus 2 visitor spaces per 20 units.
Primary or Secondary Schools	4 spaces per classroom
Office	5% of required automobile parking
Commercial	5% of required automobile parking
Recreational Centre	10% of required automobile parking
Hotel / Motel	5% of required automobile parking
Industrial	4% of required automobile parking

Recommendations for bicycle parking rates are provided in Appendix E. These recommendations were based on policies contained in the Association of Pedestrian and Bicycle Professionals (APBP)'s Bike Parking Guide. This guide serves as a comprehensive resource for practitioners, providing best practices for the installation and maintenance of short-term and long-term bicycle parking. Bicycle parking rates implemented in comparable municipalities analyzed through the inter-jurisdictional scan were also considered while these recommendations were developed. This process ensured that our recommendations aligned with best practices for bicycle parking requirements, while remaining contextually-appropriate for the City of Guelph.

Long-term and Short-term Bicycle Parking Requirements

The APBP's Bike Parking Guide identifies two categories of bicycle parking facilities: short-term and long-term. According to this guide, short-term bicycle parking is intended to accommodate bicycle parking for a duration of fewer than two hours using simple, unsheltered bicycle racks. This type of bicycle parking is usually monitored using passive surveillance or "eyes on the street". In contrast, long-term bicycle parking is intended to accommodate bicycle parking for a duration of more than two hours. Examples of fixture types used for long-term bicycle parking include racks in secured areas and lockers. Long-term bicycle parking benefits from higher levels of security.

As previously mentioned, it is recommended that definitions for "Bicycle Parking Space, Short Term" and "Bicycle Parking Space, Long Term" be added to the City of Guelph's Zoning By-law. Recommendations for both long-term and short-term bicycle parking rates are outlined in Appendix E of this Report. These recommendations generally align with APBP standards with consideration for the

bicycle parking rates implemented in the Zoning By-laws of the comparable municipalities examined in the inter-jurisdictional scan.

Note that a bicycle parking demand survey/review was not completed as part of this Study. The City may consider conducting this type of research and analysis in the future to assess the adequacy of the proposed may long-term and short-term bicycle parking rate recommendations.

Bicycle Parking Stall Dimensional Requirements

Consistent with the City's Site Plan Procedures and Guidelines, we recommended that the following dimensional requirements for bicycle parking be implemented through the City's Zoning By-Law for bicycle parking:

Exhibit 19-2: Recommended Bicycle Parking Stall Dimensions

Criteria	Recommended Dimension
Bicycle Stall	1.8 metres x 0.6 metres minimum
Access Aisle to Bicycle Stall	1.2 metres minimum
Headroom	1.9 metres minimum vertical clearance

General Spacing Requirements for Bicycle Racks

The City of Guelph's Cycling Master Plan provided spacing requirements related to bicycle parking. Exhibit 19-3 outlines these requirements for stand-alone racks as short-term parking. The Cycling Master Plan further states that long-term bicycle parking requirements should use this spacing to guide the installation of racks in bike cages / rooms, etc.

Exhibit 19-3 sets out recommended spacing requirements for bike racks to be incorporated into the City's Zoning By-Law. Should the City wish to allow for flexibility in these standards, these spacing requirements could alternatively be incorporated into the Site Plan Procedures and Guidelines.

Exhibit 19-3: Recommended Spacing Requirements for Bicycle Racks

Spacing Type	Distance in Metres
General Spacing Requirements for Bicycle Racks	
Between Parallel Racks	0.6 metres
Between Racks which are End to End	1.8 metres
Between Racks and Obstacle (i.e., wall) Parallel to Rack	0.9 metres
Between Rack and Obstacle (i.e., wall) Perpendicular to Rack	1.2 metres
Between Rack and Obstacle (i.e., wall) Perpendicular to Rack, to Allow Double-Ended Access	2.5 metres
Aisle Width from Rack to Rack	3.9 metres

19.2 Preferential Carpool Parking

Through the provision of carpool spaces in preferred locations within parking facilities, drivers are incentivised to carpool. This decreases parking demand through the reduction in the number of single-occupant vehicles looking for a parking space. For this initiative to be effective, the subject lot must be well-utilized to ensure that drivers are incentivised to alter their behaviour to park in a better spot. There also needs to be proactive enforcement to ensure that the spaces are being filled by drivers that are carpooling.

The provision of carpool spaces is not typically mandated through Zoning, but the City may encourage the addition of carpool spaces in a design guideline for future developments.

19.3 Carshare

The provision of on-site carshare vehicles in areas that are well served by alternative modes of transportation could deter occasional drivers from owning a vehicle. The availability of carsharing vehicles in residential buildings can greatly reduce parking demand. Residents can reserve a vehicle for a window when the vehicle is needed, instead of having a personal vehicle sitting unused in a parking space for the majority of the time.

In some municipalities, including the City of Kitchener, allowances are made for developers to reduce the required number of parking spaces by 4 vehicles for every carshare space provided for up to a 16 vehicle reduction. The City of Kitchener does not outline this reduction in their Zoning By-law, but rather in a TDM checklist for developments. Although it is generally not appropriate to provide for “as of right” reductions within the zoning bylaw where certain conditions are required to be met (such as entering into agreements),

consideration of parking reductions where carshare is provided and secured could be considered through development applications.

19.4 Peer-to-Peer Shared Parking

Through peer-to-peer shared parking platforms such as Rover Parking, landowners are able to offer up on-site parking for a fee to drivers that are looking to park. This platform facilitates matching drivers looking for parking to parking spaces that would otherwise be empty, which makes better use of the available parking supply in the area.

The City of Guelph may consider allowing peer-to-peer shared parking platforms to make better use of underutilized parking supply in areas where drivers may be looking for parking in the future. Note that this is outside the scope of what may be permitted by a Zoning By-law.

19.5 Unbundled Parking

The provision of unbundled parking in residential buildings has been shown to result in a reduction of car ownership compared to buildings with bundled parking. When residents are faced with the decision to pay for a parking space, many will opt out; this leads to residents only owning a car and having a parking space if it is necessary. Unbundled parking also leads to more affordable housing for some residents, since the cost of parking is not forced onto all of the residents, only the ones who need a parking space.

The City of Guelph's Zoning By-law, the City of St. Catharines' Zoning By-law, and the City of Burlington's Zoning By-law do not currently contemplate unbundled parking.

The Town of Oakville's Zoning By-law specifically requires any minimum parking space, barrier-free parking space, bicycle parking space, stacking stage, and loading space required and any driveway / aisle leading to those spaces must be exclusively used for that purpose at all times, unless otherwise specified by the By-law (precludes unbundled parking).

In our experience and from our review, the use of unbundled parking is not generally contemplated or regulated through Zoning and is generally secured through development applications where conditions can be required to secure the provision of unbundled parking spaces.

19.6 Shared Parking

The provision of shared parking can reduce the required parking supply for developments by assessing a common parking area as a shared resource between the land uses it serves. Shared parking acknowledges that since different land uses experience peak parking demand at various times throughout the day, the peak parking demand may not need to be accommodated for all land uses at once. As a result, shared parking encourages more efficient use of the available parking supply. Municipalities including Burlington and Toronto often include shared parking provisions in their Zoning By-law, and Guelph is also recommended to do the same.

Exhibit 19-4 outlines recommended shared parking rates for various land uses that shared parking provisions may apply to. These values are developed by the Victoria Transport Policy Institute⁸, with some modifications based on off-street demand surveys conducted as part of this study for office and retail land uses.

Exhibit 19-4: Proposed Shared Parking Rates

Land Uses	Weekday			Weekend		
	Daytime	Evening	Overnight	Daytime	Evening	Overnight
Office / Industrial	100%	20%	5%	5%	5%	5%
Retail	90%	80%	5%	100%	70%	5%
Hotel	70%	100%	100%	70%	100%	100%
Restaurant	70%	100%	10%	70%	100%	20%
Movie Theatre	40%	80%	10%	80%	100%	10%
Entertainment	40%	100%	10%	80%	100%	50%
Conference / Convention	100%	100%	5%	100%	100%	5%
Institutional	100%	20%	5%	10%	10%	5%
Place of worship	10%	5%	5%	100%	50%	5%

There are a number of additional factors that need to be considered in implementing shared parking effectively:

- A mixed use development must be planned with use types by a proportion of floor area known in advance (e.g., retail, office, restaurant), so that a shared parking calculation can be conducted;
- Parking must be unreserved and designed to serve all uses;
- When a new business moves into a development, its parking demand profile may be different from the original use, which may reduce the potential for shared parking and lead to parking undersupply; and,
- The submission of a shared parking agreement between the proposed users of a shared parking facility can be required to ensure that it can be reviewed, and enforcement is undertaken if necessary.

19.7 Off-Site Parking

By allowing developments located in planned high-density areas to meet the parking requirements stated in the Zoning By-law using parking spaces located off-site, the City of Guelph could encourage a more compact and pedestrian-friendly urban form. These off-site facilities could be dedicated to serving parking demands at a specific development or shared between multiple developments within a reasonable vicinity. As shown in Exhibit 3-9 and Exhibit 3-10, an

⁸ “Shared Parking Facilities Among Multiple Users.” Online TDM Encyclopedia - Shared Parking, 2015, www.vtpi.org/tm/tm89.htm.

acceptable distance may range from 120 metres to 480 meters and would vary based on the land use of the development. Note that off-site parking is not a tool that can be implemented through a Zoning By-law.

19.8 Community Energy Initiative Update Targets

In May of 2018, City Council endorsed an update to the Community Energy Initiative (CEI) presented by Our Energy Guelph (OEG), which established a community-wide goal of net zero carbon by 2050. In May of 2019, OEG presented an additional update to the CEI with the intent to establish next steps in program and project implementation. Sustainability Solutions Group was retained to prepare a “low carbon pathway”, which identifies 25 actions to allow the City of Guelph to achieve the goal of net zero carbon.

Nine of the actions comprising the low carbon pathway pertain specifically to transportation. Three of these actions will be analyzed below for their potential to be implemented by the City of Guelph’s Zoning By-law.

19.8.1 Action 18: Increasing the Cycling and Walking Mode Share

Action 18 of the low carbon pathway deals with increasing the cycling and walking mode share within the City of Guelph. This action corresponds directly with the objectives of TDM, which aims to promote more sustainable modes of transportation by influencing travel behaviour. A variety of TDM measures may be implemented to assist the City of Guelph in increasing the cycling and walking mode share. The other six don’t lend themselves to implementation through zoning.

Some TDM measures can be implemented into and enforced by a Zoning By-law. For example, the City of Guelph’s Zoning By-law may be used to prescribe bicycle parking rates and dimensions, to ensure that cycling infrastructure is adequate for accommodating an increase in cyclists. It is recommended that bicycle parking rates are implemented into the City of Guelph’s Zoning By-law, as specified in Exhibit 19-1. Recommended bicycle parking stall dimensions are also outlined in Exhibit 19-2, which we recommend adding to the Zoning By-law in consistency with the City’s Site Plan Procedures and Guidelines.

Geographic-based parking tools may also be implemented into a Zoning By-law, as outlined in Section 4 of this Report, to better tailor parking requirements to the needs of specific areas of the City of Guelph. This approach allows it to be easier to avoid establishing parking requirements which encourage land use patterns that do not promote active transportation within the City. As a result, intensification areas may be promoted which are particularly well-suited for facilitating cycling and walking. Geographic-based parking regulations which we recommend implementing into the City of Guelph’s Zoning By-law are outlined in Section 4.4 of this Report.

Additionally, establishing parking maximums may be incorporated into a Zoning By-law to ensure that an oversupply of parking is not provided which may discourage travellers from cycling or walking. It is recommended that parking maximums be implemented into the City of Guelph’s Zoning By-law, in

conjunction with geographic-based parking, to limit parking in areas of intensification in the City. Recommended maximum parking rates are outlined in Appendix C.

Other TDM measures are not suitable for implementation via Zoning By-law and may be better addressed using other regulatory tools, such as municipal design guidelines or TDM guidelines. Examples of these measures include adding a requirement for carpool / carshare spaces into a design guideline. Incentives, such as parking reductions, may also be provided to developers who install carpool / carshare spaces. A mode share increase can also be promoted by expanding and improving pedestrian and cycling network infrastructure throughout the City. While these approaches are outside the scope of this Report, it is recommended that these tools be explored by the City of Guelph.

19.8.2 Action 22: Promoting Electric Passenger Vehicles Usage

Action 22 establishes a goal for 100% of new passenger vehicles in the City of Guelph to be electric by 2030. Zoning By-laws may be used to require developers to install a minimum number of parking spaces equipped with electric vehicle supply equipment now or in the future, which is the most powerful municipal land use tool available for promoting electric passenger vehicle usage. These requirements promote increased demand for electric vehicles and reduce barriers for users to promote the practicality of this travel option. Refer to Section 17.3 for recommended requirements for electric vehicle supply equipment in the City of Guelph.

19.8.3 Action 23: Promoting Electric Commercial Vehicle Usage

Action 23 sets out an additional goal for 95% of commercial vehicles to be electric by 2030. As mentioned above, Zoning By-laws may implement regulations to require developers to install a minimum number of parking spaces with electric vehicle supply equipment or parking spaces where this equipment may be added in the future. As previously mentioned, these requirements promote and reduce barriers for electric vehicle usage. Recommended updates for electric vehicle requirements in the City of Guelph's Zoning By-law are outlined in Section 17.3 of this Report. Requiring commercial uses to install parking stalls with electric vehicle charging stations and accommodate electric vehicle supply equipment in the future is the primary avenue for which the City of Guelph's Zoning By-law could contribute to the achievement of this action.

20 Conclusion and Next Steps

This Report provides a summary of IBI Group's work undertaken to-date as part of this study, including:

- A review of existing parking, loading, and driveway standards as set out in the City of Guelph's Zoning By-law, and a review of the current land use planning policy framework as it relates to parking and loading;
- An Off-Street Parking Demand review, which included parking utilization surveys of 20 sites throughout the City; and,
- An inter-jurisdictional review of five comparable municipalities who have recently undergone reviews of their respective Zoning By-laws and updates to their municipal parking requirements / standards, and an in-depth review of observed best practices.

This Report culminates in a series of recommendations to the City of Guelph on what, if any, revisions should be made to the requirements related to items reviewed in this study when undertaking the Zoning By-law Review. Specific recommendations and additional commentary are provided on the following topics:

- Setting rates based on geographic context;
- Minimum parking rates and the consideration of maximum rates for residential, commercial and other land uses;
- Loading space requirements;
- Driveway width requirements;
- Garage dimension and projection requirements;
- Driveway material requirements;
- Driveway and parking location requirements;
- Parking space dimension requirements;
- Drive aisle requirements;
- Barrier-free and accessible parking requirements;
- Electric vehicle parking requirements;
- Stackable / hydraulic lift parking; and,
- Transportation demand management measures, including bicycle parking.

As many of the applicable requirements in the existing Zoning By-law are out-of-date, it was found that many were not in alignment with peer municipalities, provincial legislation, observed best practices, or observed parking demand. The recommendations made in this Report are aimed at modernizing the City of Guelph Zoning By-law to rectify these issues. The recommendations on these

items have been made with the collective professional experience and judgement of the IBI Group project team and are based on all information collected throughout this study. A complete summary of the rate recommendations made in this Report can be found in Appendix C.

Appendix A

Parking Demand Survey Results

ID	Address	Land Use	Survey	Time	General	Accessible	Visitor	Carpool	Bicycle	Reserved	Mother	EV	Total	Utilization
1	83, 89 Dawson Road	Medical Office	Capacity		353	11			10	46	4		414	-
			Weekday	9:40	236	10			0	20	0		266	64%
				10:30	260	9			0	25	1		295	71%
				11:30	245	9			0	24	3		281	68%
				13:40	224	10			0	25	1		260	63%
				14:30	244	8			1	29	3		284	69%
				15:25	218	9			0	26	2		255	62%
2	77 Westmount Rd	Medical Office	Capacity		82	2				16			100	-
			Weekday	9:30	25	0				9			34	34%
				10:15	32	0				8			40	40%
				11:20	38	1				9			48	48%
				13:30	36	2				10			48	48%
				14:20	38	2				9			49	49%
				15:20	34	0				9			43	43%
3	175 Chancellors Way	Medical Office	Capacity		122	6			11			1	129	-
			Weekday	9:41	31	2			0			1	34	26%
				10:20	31	1			0			1	33	26%
				10:52	30	2			0			1	33	26%
				11:35	38	0			0			1	39	30%
				13:40	43	0			0			1	44	34%
				14:40	37	2			0			1	40	31%
				15:25	34	1			0			1	36	28%
			Saturday	12:00	16	0			0			0	16	12%
				13:00	15	1			0			0	16	12%
				13:30	13	0			0			0	13	10%
				14:00	10	0			0			0	10	8%
				14:30	8	0			0			0	8	6%
				15:00	6	0			0			0	6	5%
				15:30	5	0			0			0	5	4%
4	281 Stone Rd E	Medical Office	Capacity		44	4			4	11			59	-
			Weekday	10:00	38	3			0	8			49	83%
				11:00	42	3			0	9			54	92%
				12:00	34	0			0	9			43	73%
				14:00	42	3			0	9			54	92%
				15:00	40	2			0	8			50	85%
				15:55	40	2			0	9			51	86%
5	848 Gordon St	Office	Capacity		32	2							34	-
			Weekday	9:56	26	0							26	76%
				10:35	26	0							26	76%
				11:06	25	0							25	74%
				11:50	23	0							23	68%
				14:13	26	0							26	76%
				14:54	18	0							18	53%
				15:45	17	0							17	50%
			Saturday	12:00	8	0							8	24%
				12:30	11	0							11	32%
				13:30	11	0							11	32%
				14:00	13	0							13	38%
				14:30	12	0							12	35%
				15:00	5	0							5	15%
				15:30	3	0							3	9%
6	174 Stone Rd W	Office	Capacity		157	5	10						172	-
			Weekday	9:49	133	2	5						140	81%
				10:26	132	2	6						140	81%
				10:57	132	2	5						139	81%
				11:38	134	2	6						142	83%
				14:00	133	1	6						140	81%
				14:45	124	1	6						131	76%
				15:35	120	1	5						126	73%
7	679 Southgate Dr	Office	Capacity		68	2							70	-
			Weekday	9:30	29	0							29	41%
				10:12	27	0							27	39%
				10:44	32	0							32	46%
				11:14	31	0							31	44%
				13:30	32	0							32	46%
				14:20	30	0							30	43%
				15:12	29	0							29	41%

ID	Address	Land Use	Survey	Time	General	Accessible	Visitor	Carpool	Bicycle	Reserved	Mother	EV	Total	Utilization
8	37, 39, 43 Goodwin Dr	Multiple Residential	Capacity		296	5	17		15				318	-
			Friday	20:00	181	0	14						181	57%
				20:36	197	0	15						197	62%
				21:20	196	1	14						197	62%
				21:52	204	0	14						204	64%
				22:20	185	0	16						185	58%
			Saturday	8:00	215	0	16						215	68%
				9:00	189	0	11			9			189	59%
9:30	171	0		9			9			171	54%			
9	35 Mountford Dr	Multiple Residential	Capacity		133	3	42						136	-
			Friday	20:00	72	0	29						72	53%
				20:26	81	0	32						81	60%
				21:05	82	0	39						82	60%
				21:31	85	0	33						85	63%
				22:15	84	0	28						84	62%
			22:41	88	0	28						88	65%	
			Saturday	8:30	83	0	28						83	61%
9:13	78	0		30						78	57%			
10:30	66	2		31						68	50%			
10	803 Gordon St	Multiple Residential	Capacity		24	2	6						26	-
			Friday	20:24	23	0							23	88%
				20:53	24	0							24	92%
				21:32	24	0							24	92%
				22:04	25	0							25	96%
				22:45	24	0							24	92%
			Saturday	8:30	22	0	3						22	85%
				9:30	21	0	3						21	81%
10:00	19	0		2						19	73%			
11	901 Paisley Rd	Multiple Residential	Capacity		36	2	12			2			40	-
			Friday	20:00	27	0	2						27	68%
				20:30	27	0	2						27	68%
				21:00	27	0	2						27	68%
				21:30	27	0	2						27	68%
				22:00	28	0	2						28	70%
			22:30	28	0	2						28	70%	
			Saturday	8:00	22	0	4			2			24	60%
8:52	27	0		4			2			29	73%			
9:46	23	0		1			2			25	63%			
12	32 Arkell Rd	Multiple Residential	Capacity		48	1	5						49	-
			Friday	20:14	25	1	2						26	53%
				20:49	29	1	3						30	61%
				21:27	33	1	3						34	69%
				22:00	32	1	4						33	67%
				22:30	32	1	4						33	67%
			Saturday	8:30	39	1	3						40	82%
				9:00	36	1	3						37	76%
9:30	30	1		3						31	63%			
13	454 Janefield Ave	Multiple Residential	Capacity		75		16						75	-
			Friday	20:00	42		13						42	56%
				20:30	43		15						43	57%
				21:00	47		14						47	63%
				21:30	49		15						49	65%
				22:00	47		15						47	63%
			22:30	50		15						50	67%	
			Saturday	9:00	52		8						52	69%
9:30	52			9						52	69%			
10:00	45			9						45	60%			
14	5 Schroder Cres	Multiple Residential	Capacity		78	4	8						82	-
			Friday	20:10	45	3							48	59%
				20:35	48	3							51	62%
				21:23	52	3							55	67%
				21:42	48	2							50	61%
				22:25	51	2							53	65%
			22:53	53	2							55	67%	
			Saturday	8:20	44	2	5						46	56%
9:07	42	2		5						44	54%			
10:08	39	2		2						41	50%			

ID	Address	Land Use	Survey	Time	General	Accessible	Visitor	Carpool	Bicycle	Reserved	Mother	EV	Total	Utilization
15	3 Clair Rd E	Commercial	Capacity		356	14				7			377	-
			Saturday	12:00	156	5				3			164	44%
				12:30	143	7				5			155	41%
				13:30	136	5				7			148	39%
				14:00	150	4				7			161	43%
				14:30	145	6				8			159	42%
				15:00	135	5				8			148	39%
				15:30	126	3				5			134	36%
			Weekday	16:00	118	2				1			121	32%
				17:27	188	5				3			196	52%
				18:30	199	3				1			203	54%
				19:10	201	3				2			206	55%
19:45	193	2					0			195	52%			
16	10 Woodlawn Rd E	Commercial	Capacity		192	8			6				200	-
			Saturday	12:10	53	1			0				54	27%
				13:53	62	1			0				63	32%
				14:37	64	1			0				65	33%
				15:22	65	3			0				68	34%
				Weekday	12:48	55	1			0				56
			14:00		57	2			0				59	30%
			14:36		61	1			1				62	31%
			15:45		52	1			0				53	27%
			16:30		47	0			0				47	24%
			17:15		46	1			0				47	24%
17	375 Eramosa Rd	Commercial	Capacity		75	2			6				77	-
			Saturday	12:36	22	1			0				23	30%
				14:06	30	1			0				31	40%
				14:49	25	1			0				26	34%
				15:39	30	2			0				32	42%
			Weekday	13:10	39	1			0				40	52%
				13:55	45	1			0				46	60%
				14:30	42	0			0				42	55%
				15:34	41	0			0				41	53%
				16:17	43	1			0				44	57%
					32	0							32	42%
18	265 Eramosa Rd	Commercial	Capacity		123	2		8					133	-
			Saturday	12:30	15	0		0					15	11%
				14:03	11	0		0					11	8%
				14:46	14	1		0					15	11%
				15:36	14	1		0					15	11%
			Weekday	12:59	28	0		0					28	21%
				13:58	35	0		0					35	26%
				14:25	29	1		0					30	23%
				15:35	24	0		0					24	18%
				16:26	25	0		0					25	19%
18:12	17	0			0					17	13%			
19	23 Victoria Rd N	Commercial	Capacity		432	10			7				442	-
			Saturday	12:55	113	0			3				113	26%
				14:20	123	1			1				124	28%
				15:00	128	0			1				128	29%
				15:50	104	0			1				104	24%
			Weekday	13:20	131	1							132	30%
				13:40	114	1							115	26%
				14:19	107	0							107	24%
				15:22	125	1							126	29%
				16:10	112	0							112	25%
17:41	153	2								155	35%			
20	235 Starwood Dr	Commercial	Capacity		66	2							68	-
			Saturday	13:00	13	0							13	19%
				14:23	14	0							14	21%
				15:05	7	0							7	10%
				15:53	4	0							4	6%
			Weekday	13:33	15	0							15	22%
				13:49	14	0							14	21%
				14:15	15	0							15	22%
				15:08	13	0							13	19%
				15:58	16	0							16	24%
17:35	12	1								13	19%			

Appendix B

Inter-Jurisdictional Comparison of Parking Standards (Minimums)

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Residential						
Single Detached	1 per unit	2 (one which can be provided in a garage)	1 per unit*	2 per unit	1 per unit	1 per unit
Single Detached with an Accessory Apartment	3	Not specified	1 additional parking space per accessory dwelling	1 additional parking space per accessory dwelling	2, one per unit (inferred)	1 per unit (principal and secondary)
Semi-Detached	1 per unit	2 (one which can be provided in a garage)	1 per unit*	2 per unit	1 per unit	1 per unit
Semi-Detached with Accessory Apartment	3	Not specified	Not specified	1 additional parking space per accessory dwelling	2, one per unit (inferred)	Not specified
Duplex	1 per unit	2 (one which can be provided in a garage)	1 per unit*	2 per unit	1 per unit	1 per unit
Townhouse	1 per unit	2 per unit	1.15 per unit (includes visitor parking) for 5-81 units. 1.1 per unit (includes visitor parking) for more than 81 units.	2 per unit	1 per unit	1-1.4 per unit
Tourist Home	1 per building plus 1 per guestroom	Not specified	Not specified	Not specified	Not specified	Not specified
Nursing Home	1 per 3 beds	0.85 spaces per employee, plus 0.50 occupant spaces per unit, plus 0.25 visitor spaces per unit, noted as Long Term Care Facility	1 per 92 s.m. (1.1 per 100 s.m.) for Residential Care Facility, Large 2 per facility for Residential Care Facility, Small 1 per bed for Hospice	0.25 per bed, noted as Long Term Care Facility	0.4 per dwelling unit and per care bed, noted as Long Term Care Facility	0.3 per bedroom, noted as Assisted Living Facility
Apartment Building	Up to 20 units: 1.5 per unit Greater than 20 units: 1.25 per unit	1.25 per one-bedroom unit 1.50 per two-bedroom unit 1.75 per three or more bedrooms 0.35 visitor spaces per unit 1.25 spaces per unit for a mixed use building	1.15 per unit (includes visitor parking) for 5-81 units. 1.1 per unit (includes visitor parking) for more than 81 units.	1.0 per unit with less than 75.0 s.m. 1.5 per dwelling for all other units	1.25 per unit in a residential only building 1 per unit in a mixed use building	0.7 to 1.25 per unit. Varies depending on location and zoning of site.

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Residential (cont.)						
Group Home	1 per building, plus 1 per staff	2 per dwelling	1 per 63 s.m. (1.6 per 100 s.m.)	1 per unit	2 per unit	1 per building, plus 1 per staff
Bed and Breakfast	1 per guestroom, plus 1 for owner	1 space per guest room in addition to parking required for a detached dwelling	Not specified	1 additional parking space per lodging unit	1 space per rental room	Not specified
Lodging House Type 1	1 per building plus 1 per 3 lodging units	1 space per 4-person capacity noted as Lodge, Fraternity, Private Club in By-law	1 per 63 s.m. (1.6 per 100 s.m.)	1 additional parking space per lodging unit	Not specified	0.5 parking spaces per lodging room occupant. If the lodging house is owner occupied, an additional 1 parking space required for the owner
Commercial						
Office	1 per 33 s.m. (3 per 100 s.m.)	3.5 per 100 s.m.	1 per 33 s.m. (3 per 100 s.m.)	1 per 35 s.m. (2.9 per 100 s.m.)	1 per 28 s.m (3.6 per 100 s.m.)	3 per 100 s.m. (varies by area)
Retail	1 per 16.5 s.m. (6.1 per 100 s.m.)	Store: 4 per 100 s.m Centre: 5.25 per 100 s.m Supermarket:10 per 100 s.m	1 per 33 s.m. (3 per 100 s.m.)	1 per 18 s.m. (5.6 per 100 s.m.)	1 per 20 s.m. Shopping Centre, less than 4,645 s.m.: 1 per 20 s.m. (5 per 100 s.m.) Shopping Centre between 4,645 and 30,000 s.m.:1 per 37 s.m. (2.7 per 100 s.m.) Shopping Centre greater than 30,000 s.m.:1 per 27 s.m (3.7 per 100 s.m.)	4 per 100 s.m. (varies by area)
Restaurant	1 per 7.5 s.m. (13.3 per 100 s.m.)	1 per 4 seats	1 per 7.5 s.m. (13.3 per 100 s.m.)	1 per 10 s.m. (10 per 100 s.m.)	1 per 20 s.m. (5 per 100 s.m.)	1 per 4 seats where the total building floor area is less than 1,000 square metres (varies by zone)
Restaurant - Take Out	1 per 9 s.m. (11.1 per 100 s.m.)	1 space per 4 persons capacity or 25 spaces per 100 s.m. GFA, whichever is greater.	1 per 7.5 s.m. (13.3 per 100 s.m.)	1 per 10 s.m. (10 per 100 s.m.)	1 per 20 s.m (5 per 100 s.m.)	15 per 100 s.m. where the total building floor area is less than 1,000 square metres (varies by zone)
Building Supply	1 per 20 s.m. (5 per 100 s.m.) for building 1 per 50 s.m. (2 per 100 s.m.) for outdoor storage	Not specified	1 per 33 s.m (3 per 100 s.m.)	Not specified	Not specified	Not specified
Interior Warehouse	1 per 50 s.m. (2 per 100 s.m.)	Not specified	The greater of 1 per 1,500 s.m. (0.07 per 100 s.m.) or 2	1 per 100 s.m. for the first 7,500 s.m., plus 1 per 200 s.m. (0.5 per 100 s.m.) of additional net floor area	Not specified	Not specified

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Commercial (cont.)						
Car Wash Manual	2 per bay plus 5 waiting spaces	Not specified	0 (stacking spaces to be provided in accordance with s. 5.11)	1 per 100 s.m	Not specified	Not specified
Car Wash Auto	5 per bay plus 15 waiting spaces	Not specified	1 per bay for commercial vehicle wash facilities	1 per 100 s.m	Not specified	Not specified
Cleaning Establishment	1 per 50 s.m. (2 per 100 s.m.)	Not specified	Not specified	Not specified	Not specified	Not specified
Catering Service	1 per 50 s.m. (2 per 100 s.m.)	Not specified	1 per 90 s.m (1.1 per 100 s.m.)	1 per 40 s.m (2.5 per 100 s.m.) noted as Food Production	Not specified	Not specified
Commercial Entertainment	1 per 5 seats or 1 per 5 s.m. (20 per 100 s.m.), whichever is greater	Adult entertainment establishment: 1 space per 2 persons capacity Night club / Dance hall: 1.1 space per 4 persons	1 per 40 s.m (2.5 per 100 s.m.)	Adult Entertainment Establishment: 1 per 18 s.m. (5.6 per 100 s.m.) Place of entertainment: 1 per 22 s.m. (4.5 per 100 s.m.)	Nightclub: 1 per 4 persons based on maximum occupant load Adult Oriented Entertainment: 1 per 20 s.m. (5 per 100 s.m.)	Not specified
Commercial School	1 per 2 staff members, plus 1 per 28 s.m. (3.6 per 100 s.m.)	1 space per 3 students, faculty and staff	1 per 40 s.m (2.5 per 100 s.m.)	1 per 22 s.m. (4.5 per 100 s.m.)	Not specified	2 parking spaces per teaching area
Computer Establishment	1 per 33 s.m. (3 per 100 s.m.)	Not specified	1 per 33 s.m. (3 per 100 s.m.)	Not specified	Not specified	Not specified
Construction / Farm Sales	1 per 33 s.m. (3 per 100 s.m.)	Not specified	1 per 33 s.m (3 per 100 s.m.) noted as Major Equipment Supply and Services	Not specified	1 per 35 s.m (2.9 per 100 s.m.) noted in By-law as Heavy Equipment Sales and Service	Not specified
Contractor's Yard	Greater of 4 per yard or 1 per 50 s.m. (2 per 100 s.m.)	Not specified	1 per 90 s.m (1.1 per 100 s.m.)	1 per 100 s.m., noted as Contractors Establishment	1 per 100 s.m.	Not specified
Convenience Store	1 per 16 s.m.	Not specified	1 per 33 s.m. (3 per 100 s.m.)	1 per 18 s.m. (5.6 per 100 s.m.)	Not specified	Not specified
Day Care Centre	1 per 10 children, plus 1 per facility	4 spaces per 100 s.m	1 per 30 s.m (3.3 per 100 s.m.)	1 per 40 s.m. (2.5 per 100 s.m.)	1 per 25 s.m (4 per 100 s.m.)	4 per 100 s.m. (varies by area)
Dry Cleaning	1 per 33 s.m. (3 per 100 s.m.)	Not specified	Not specified	1 per 22 s.m. (4.5 per 100 s.m.)	Not specified	Not specified
Factory Sales Outlet	1 per 33 s.m. (3 per 100 s.m.) of sales area	Not specified	Not specified	Not specified	Not specified	Not specified

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Commercial (cont.)						
Financial Establishment	1 per 16.5 s.m. (6.1 per 100 s.m.)	6 spaces per 100 s.m noted in By-law as Bank, Trust Company, Credit Union	1 per 33 s.m. (3 per 100 s.m.)	1 per 22 s.m. (4.5 per 100 s.m.)	Not specified	Not specified
Garden Centre	Building - 1 per 20 s.m (5 per 100 s.m.) Outdoor - 1 per 50 s.m. (2 per 100 s.m.)	Not specified	1 per 33 s.m (3 per 100 s.m.)	Not specified	Not specified	Not specified
Hardware Store	1 per 20 s.m. (5 per 100 s.m.)	Not specified	1 per 33 s.m (3 per 100 s.m.)	Not specified	Not specified	Not specified
Liquor Store	1 per 16.5 s.m. (6.1 per 100 s.m.)	Not specified	1 per 20 s.m (5 per 100 s.m.) noted as Brewpub	Not specified	Not specified	Not specified
Medical Clinic	6 per practitioner or 1 per 15.5 s.m. (6.5 per 100 s.m.)	Not specified	1 per 19 s.m. (5.3 per 100 s.m.) noted as Health Clinic	Not specified	1 per 28 s.m (3.6 per 100 s.m.)	Not specified
Medical Office	7 per practitioner	6 per 100 s.m.	1 per 19 s.m. (5.3 per 100 s.m.)	1 per 35 s.m. (2.9 per 100 s.m.) for the first 60% of the net floor area occupied by medical office use 1 per 18 s.m. (5.6 per 100 s.m.) where medical offices occupy over 60% of the net floor area occupied by medical office	Not specified	Not specified
Monument Sales	1 per 50 s.m. (2 per 100 s.m.)	Not specified	Not specified	Not specified	Not specified	Not specified
Office Supply	1 per 25 s.m. (4 per 100 s.m.)	Not specified	Not specified	Not specified	Not specified	Not specified
Personal Service Establishment	1 per 16.5 s.m. (6.1 per 100 s.m.)	4 spaces per 100 s.m noted in By-law as Service Commercial	1 per 33 s.m. (3 per 100 s.m.)	1 per 22 s.m. (4.5 per 100 s.m.) noted as Service Commercial Establishment	1 per 20 s.m. (5 per 100 s.m.) noted as Service Commercial	Not specified
Print Shop	1 per 50 s.m. (2 per 100 s.m.)	Not specified	1 per 33 s.m (3 per 100 s.m.)	Not specified	Not specified	Not specified
Storage Facility	1 per 50 s.m. (2 per 100 s.m.)	Not specified	The greater of 1 per 1,500 s.m. (0.1 per 100 s.m.), or 2	1 per 100 s.m., noted as Commercial Self- Storage and Bulk Storage Facility	1 per 100 s.m.	Not specified

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Commercial (cont.)						
Hotel	1 per guest room, plus 1 per 10 s.m. open to the public	1 per suite	1 per room	1 per lodging unit, plus1 per 30 s.m. (3.3 per 100 s.m.) of area outside of a lodging unit	1 per guest room	1 per guest room, plus 5 per 100 s.m. of GFA for commercial, conference and or convention space
Repair Service	1 per 33 s.m. (3 per 100 s.m.)	Not specified	1 per 90 s.m (1.1 per 100 s.m.)	1 per 100 s.m. net floor area for first 7,500 s.m 1 per 200 s.m. (0.5 per 100 s.m.) for additional net floor area	1 per 100 s.m.	Not specified
Research Establishment	1 per 33 s.m. (3 per 100 s.m.)	Not specified	1 per 33 s.m. (3 per 100 s.m.)	Not specified	1 per 100 s.m.	Not specified
Retail Sales / Rental of Furniture and Appliances	1 per 33 s.m. (3 per 100 s.m.)	Not specified	Not specified	Not specified	Not specified	Not specified
Retail Sales / Rental of Electronics and AV Equipment	1 per 20 s.m. (5 per 100 s.m.)	Not specified	Not specified	Not specified	Not specified	Not specified
Tradesperson Shop	1 per 40 s.m. (2.5 per 100 s.m.)	Not specified	1 per 33 s.m. (3 per 100 s.m.) notes as Craftsperson’s Shop / Artisan's Establishment	Not specified	Not specified	Not specified
Trucking Operation	1 per 50 s.m. (2 per 100 s.m.)	Not specified	1 per 40 s.m., exclusive of any parking for fleet vehicles, noted as Transportation Depot	1 per 100 s.m., noted as Transportation Terminal	1 per 100 s.m., noted as Transportation Depot	Not specified
Vehicle Gas Bar	2 at minimum per use	Not specified	0 (stacking spaces to be provided in accordance with s. 5.11)	Not specified	1 per 20 s.m. (5 per 100 s.m.)	Not specified
Service Station / Repair Shop	1 per 14 s.m. (7.1 per 100 s.m.)	Not specified	3 per service bay, noted as Automotive Detailing and Repair Operation	1 per 100 s.m., noted as Transportation Terminal	1 per 20 s.m. (5 per 100 s.m.) noted as Motor Vehicle Repair Garage	3.5 spaces per 100 s.m.
Vehicle Sales	1 per 25 s.m. (4 per 100 s.m.), or a minimum of 2, whichever is greater	Not specified	1 per 33 s.m (3 per 100 s.m.)	1 per 100 s.m. noted as Transportation Terminal	1 per 30 s.m. (3.3 per 100 s.m.)	Not specified
Veterinary Service	1 per 25 s.m. (4 per 100 s.m.)	Not specified	1 per 40 s.m. (2.5 per 100 s.m.)	1 per 22 s.m. (4.5 per 100 s.m.)	1 per 20 s.m. (5 per 100 s.m.) noted as Animal Care Establishment	Not specified

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Industrial						
Warehouse	1 per 200 s.m. (0.5 per 100 s.m.)	1 per 100 s.m.	1 per 1,500 s.m. (0.07 per 100 s.m.)	1 per 100 s.m. for the first 7,500 s.m., plus 1 per 200 s.m. (0.5 per 100 s.m.)for any additional floor area	1 per 100 s.m., noted as Industry-Light	2.5 per 100 s.m., where the building floor area is 1,000 s.m. or less 1 per 100 s.m., where the building floor area is 1,000 to 5,000 s.m. 0.75 per 100 s.m., where the building floor area is greater than 5,000 s.m.
Manufacturing	1 per 50 s.m. (2 per 100 s.m.), where the gross floor area is up to 1,000 s.m. 1 per 100 s.m., where the gross floor area is between 1,000 s.m. and 5000 s.m. 1 per 150 s.m., where the gross floor area is above 5000 s.m.	1 per 100 s.m.	1 per 90 s.m. (1.1 per 100 s.m.)	1 per 100 s.m. for the first 7,500 s.m., plus 1 per 200 s.m. (0.5 per 100 s.m.)for any additional floor area	1 per 100 s.m., noted as Industry-Heavy	2.5 per 100 s.m., where the building floor area is 1,000 s.m. or less 1 per 100 s.m., where the building floor area is 1,000 to 5,000 s.m. 0.75 per 100 s.m., where the building floor area is greater than 5,000 s.m
Institutional						
Public Hall / Building	1 per 5 seats or 1 per 10 s.m. (10 per 100 s.m.)	Community Institution:1 per 4-person capacity Convention / Conference / Banquet Centre: 10 spaces per 100 s.m	1 per 23 s.m (4.3 per 100 s.m.) noted as Place of Assembly and Community	1 per 18 s.m. (5.6 per 100 s.m.)	1 per 20 s.m. (5 per 100 s.m.) noted as Place of Assembly / Banquet Hall	3 per 100 s.m., noted as Government Use
Aggregate Extraction	4 per operation	Not specified	Not specified	Not specified	Not specified	Not specified
Arena	1 per 33 s.m. (3 per 100 s.m.)	1 space per 4 seats notes as Movie theatre	2 per court plus 20 per playing field, noted as Outdoor Active Recreation	Not specified	1 per 20 s.m., noted as Theatre	5 per 100 s.m., noted as Auditorium
School - Elementary	1 per classroom, plus 4 visitor parking spaces	1.5 per classroom	1 per 100 s.m., including portables	1.5 per classroom, not including any portables	Not specified	2 per teaching area, 3 per 100 s.m. for ancillary uses
School - Secondary	3 per classroom	4 per classroom	1 per 77 s.m. (1.3 per 100 s.m.)	4 per classroom	Not specified	2 per teaching area, plus 3 per 100 s.m. for ancillary uses
Church / Place of Worship	1 per 5 seats or 1 per 10 s.m., whichever is greater, noted as Public Hall	6 spaces per 100 s.m.	1 per 23 s.m. (4.3 per 100 s.m.)	1.0 per 5 persons capacity, plus 1 per 22 s.m. (4.5 per 100 s.m.) of accessory space	1 per 20 s.m. (5 per 100 s.m.)	8 per 100 s.m., noted as Spiritual Use

Use	Guelph	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Institutional (cont.)						
Recreation Centre	1 per 10 s.m. (10 per 100 s.m.) or 1 per 5 seats, whichever is greater	1 space per 6 persons, noted as Entertainment Establishment	1 per 20 s.m. (5 per 100 s.m.) noted as Fitness Centre	Not specified	1 per 20 s.m. (5 per 100 s.m.)	Not specified
Golf Course	6 per hole	Not specified	1 per 23 s.m. (4.3 per 100 s.m.) plus 4 per golf hole	6 per hole, plus 1 per 22 s.m. (4.5 per 100 s.m.) for any accessory uses	18 per 9 holes of golf, plus 1 per 27 s.m. (3.7 per 100 s.m.) of clubhouse	Not specified
Mini Golf	1 per tee / hole	Not specified	Not specified	1 per hole	Not specified	Not specified
Bowling Alley	1 per 6 lanes, plus 1 per 23 s.m. (4.3 per 100 s.m.) of accessory use	4 spaced per alley	Not specified	Not specified	Not specified	Not specified
Medical Treatment Facility	1.25 per bed	0.65 spaces per patient bed noted in By-law as Hospital / Health Care Facility	1 per 70 s.m. (1.4 per 100 s.m.) noted as Hospital	1 per 50 s.m. (2 per 100 s.m.) noted as Hospital	1 per 50 s.m. (per 100 s.m.) noted as Hospital	0.3 parking spaces per hospital bedroom

Appendix C

Proposed Geographic-Based Parking Rates (Priority Growth Areas)

Land Use	Mixed Use Areas Parking Rate: Minimum	Mixed Use Areas Parking Rate: Maximum
Residential		
Single Detached	1 space per unit	2 spaces per unit
Single Detached with an Accessory Apartment	1 space per unit	1 space per unit
Semi-Detached	1 space per unit	2 spaces per unit
Semi-Detached with Accessory Apartment	1 space per unit	1 space per unit
Duplex	1 space per unit	2 spaces per unit
Street Townhouse	1 space per unit	2 spaces per unit
Cluster Townhouse	1 space per unit (plus 0.2 visitor parking spaces per dwelling unit)	2 spaces per unit
Stacked Townhouse	1 space per unit (plus 0.2 visitor parking spaces per dwelling unit)	2 spaces per unit
Tourist Home	0.75 per guest room	1 space per unit
Nursing Home	1 space per 3 bed	Not applicable
Apartment Building	1.0 spaces per unit (plus 0.1 visitor parking spaces per dwelling unit)	1.5 spaces per unit (includes visitor parking spaces)
Group Home	1 space per building, plus 1 space per staff	Not applicable
Bed and Breakfast	1 space per building, plus 1 space per staff	Not applicable
Lodging House Type 1	1 space per building, plus 1 space per 3 lodging units	Not applicable
Commercial		
Office	2.5 spaces per 100 s.m.	5 spaces per 100 s.m.
Retail	2 spaces per 100 s.m.	3 spaces per 100 s.m.
Restaurant	5 spaces per 100 s.m.	12 spaces per 100 s.m.
Restaurant – Take Out	5 spaces per 100 s.m.	10 spaces per 100 s.m.
Building Supply	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Interior Warehouse	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Car Wash Manual	2 spaces per bay, plus 3 waiting spaces	2 spaces per bay plus 5 waiting spaces
Car Wash Auto	10 stacking spaces	Not applicable
Cleaning Establishment	2 spaces per 100 s.m.	3 spaces per 100 s.m.
Catering Service	2 spaces per 100 s.m.	3 spaces per 100 s.m.
Commercial Entertainment	5 spaces per 100 s.m.	10 spaces per 10 s.m.
Commercial School	1 space per 100 s.m.	5 spaces per 100 s.m.
Computer Establishment	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Construction / Farm Sales	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.

Land Use	Mixed Use Areas Parking Rate: Minimum	Mixed Use Areas Parking Rate: Maximum
Commercial		
Contractor's Yard	1 space per 100 s.m.	1.5 spaces per 100 s.m.
Convenience Store	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Day Care Centre	3 spaces per 100 s.m.	Not applicable
Drive-Through Facility (Retail)	3 stacking spaces	Not applicable
Drive-Through Facility (Restaurant)	6 stacking spaces	Not applicable
Drive-Through Facility (Financial)	3 stacking spaces	Not applicable
Drive-Through Facility (All others)	3 stacking spaces	Not applicable
Dry Cleaning	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Factory Sales Outlet	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Financial Establishment	3.5 spaces per 100 s.m.	4.5 spaces per 100 s.m.
Garden Centre	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Hardware Store	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Liquor Store	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Medical Clinic	4 spaces per 100 s.m.	4 spaces per 100 s.m.
Medical Office	3 spaces per 100 s.m.	4 spaces per 100 s.m.
Monument Sales	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Office Supply	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Personal Service Establishment	4 spaces per 100 s.m.	5 spaces per 100 s.m.
Print Shop	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Storage Facility	1 space per 100 s.m.	1.5 spaces per 100 s.m.
Hotel	0.75 spaces per guest room	1 space per guest room
Repair Service	1 space per 100 s.m.	1.5 spaces per 100 s.m.
Research Establishment	2 spaces per 100 s.m.	3 spaces per 100 s.m.
Retail Sales / Rental of Furniture and Appliances	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Retail Sales / Rental of Electronics and AV Equipment	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Tradesperson Shop	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Trucking Operation	1 space per 100 s.m.	3 spaces per 100 s.m.
Vehicle Gas Bar	2 stacking spaces per fueling area, plus 5 spaces per 100 s.m. (GFA of any commercial building)	Not applicable

Land Use	Mixed Use Areas Parking Rate: Minimum	Mixed Use Areas Parking Rate: Maximum
Industrial		
Service Station / Repair Shop	1.5 spaces per 100 s.m.	3 spaces per 100 s.m.
Vehicle Sales	1 space per 100 s.m.	2 spaces per 100 s.m.
Veterinary Service	2 spaces per 100 s.m.	3 spaces per 100 s.m.
Warehouse	0.5 spaces per 100 s.m.	Not applicable
Manufacturing	1 space per 100 s.m.	Not applicable
Institutional		
Public Hall / Building	6 spaces per 100 s.m.	8 spaces per 100 s.m.
Aggregate Extraction	4 spaces per operation at minimum	Not applicable
Arena	3 spaces per 100 s.m.	5 spaces per 100 s.m.
School - Elementary	1 spaces per classroom, plus 4 visitor spaces	Not applicable
School - Secondary	3 spaces per classroom	Not applicable
Church / Place of Worship	5 spaces per 100 s.m.	5 spaces per 100 s.m.
Recreation Centre	5 spaces per 100 s.m.	5.5 spaces per 100 s.m.
Golf Course	4 spaces per hole, plus 4 spaces per 100 s.m. (GFA of clubhouse, prohouse, and other course related buildings)	4 spaces per hole, plus 5 per 100 s.m.
Mini Golf	1 space per tee or hole	1 space per tee or hole
Bowling Alley	1 space per 6 lanes, plus 1 space per 100 s.m.	1 space per 6 lanes, plus 2 per 100 s.m.
Medical Treatment Facility	2 spaces per 100 s.m.	Not applicable

Appendix D

Inter-Jurisdictional Comparison of Bicycle Parking Standards (Minimums)

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Residential					
Single Detached	Not applicable	0 to 1 space per unit (depending on location)	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Single Detached with an Accessory Apartment	Not applicable	0 to 1 space per unit (depending on location)	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Semi-Detached	Not applicable	0 to 1 space per dwelling unit (depending on location)	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Semi-Detached with Accessory Apartment	Not applicable	0 to 1 space per dwelling unit (depending on location)	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Duplex	Not applicable	0.5 to 1 long-term space per unit without a private garage (depending on location), 2 to 6 short-term spaces where more than 20 dwelling units are on a lot (depending on location)	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Townhouse	Not applicable	Cluster townhouse dwelling: 0.5 to 1 long-term space per unit without a private garage (depending on location), 2 to 6 short-term spaces where more than 20 dwelling units are on a lot (depending on location)	Stacked townhouse dwelling: 1 per dwelling unit	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Tourist Home	Not applicable	10% of total required parking spaces	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Nursing Home	Not applicable	If occupied by 9 or more persons: 1 long-term space per 110 s.m. to 710 s.m. (depending on location), 2 to 6 short-term spaces if GFA is greater than 550 s.m.	The lesser of 5 or 0.25 per unit	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Apartment Building	Not applicable	0.5 to 1 long-term space per unit without a private garage (depending on location), 2 to 6 short-term spaces where more than 20 dwelling units are on a lot (depending on location)	1 per dwelling	6 spaces plus 1 for every additional 10 units above 20	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit For lots containing 20 or more units: 0.3 long-term spaces and 0.3 short-term spaces per dwelling unit
Group Home	Not applicable	If occupied by 9 or more persons: 1 long-term space per 110 s.m. to 710 s.m. (depending on location), 2 to 6 short-term spaces if GFA is greater than 550 s.m.	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Bed and Breakfast	Not applicable	10% of total required parking spaces	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Lodging House Type 1	Not applicable	No spaces required	Not applicable	Not applicable	For lots containing less than 20 units: 0.6 long-term or short-term spaces per dwelling unit
Commercial					
Office	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 333 to 500 s.m. (depending on location), 1 short-term space per 500 to 750 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Retail	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Restaurant	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 100 to 250 s.m. (depending on location), 2 short-term spaces per restaurant	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 170 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Restaurant - Take Out	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 100 to 250 s.m. (depending on location), 2 short-term spaces per restaurant	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 170 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Building Supply	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Interior Warehouse	2 spaces plus 1 space per 1,000 s.m.	0 to 1 long-term space per 1,500 s.m. (depending on location), 0 to 1 short-term space per 3,000 s.m. (depending on location)	No spaces required	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Car Wash Manual	2 spaces plus 1 space per 1,000 s.m.	No spaces required	Not applicable	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Car Wash Auto	2 spaces plus 1 space per 1,000 s.m.	No spaces required	Not applicable	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Cleaning Establishment	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Catering Service	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 1,000 to 1,500 s.m. (depending on location), 1 short-term space per 2,000 to 3,000 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Commercial Entertainment	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m., 1 short-term space per 250 s.m.	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Commercial School	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 167 to 300 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	Two spaces per each teaching area
Computer Establishment	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 333 to 500 s.m. (depending on location), 1 short-term space per 500 to 750 s.m. (depending on location)	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Construction / Farm Sales	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Contractor's Yard	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	2 spaces, plus 0.25 spaces per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Convenience Store	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
		term space per 167 to 333 s.m. (depending on location)			For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Day Care Centre	2 spaces plus 1 space per 1,000 s.m.	1 short-term space per 333 to 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 500 s.m.	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Drive-Through Facility	2 spaces plus 1 space per 1,000 s.m.	No spaces required	Not applicable	Not applicable	Not applicable
Dry Cleaning	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Factory Sales Outlet	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Financial Establishment	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Garden Centre	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Hardware Store	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Liquor Store	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Medical Clinic	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	Not applicable	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Medical Office	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Monument Sales	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Office Supply	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Personal Service Establishment	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Print Shop	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Storage Facility	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Hotel	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 30 to guest rooms (depending on location), 2 to 6 short-term spaces (depending on number of guest rooms)	Not applicable	6 spaces plus 1 space per 10 guest rooms	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Repair Service	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 1,000 to 1,500 s.m. (depending on location), 1 short-term space per 2,000 to 3,000 s.m. (depending on location)	2 spaces, plus 0.25 spaces per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Research Establishment	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 333 to 500 s.m. (depending on location), 1 short-term space per 500 to 750 s.m. (depending on location)	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Retail Sales / Rental of	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Furniture and Appliances		term space per 500 s.m. (depending on location)			For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Retail Sales / Rental of Electronics and AV Equipment	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Tradesperson Shop	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 1,000 to 1,500 s.m. (depending on location), 1 short-term space per 2,000 to 3,000 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Trucking Operation	2 spaces plus 1 space per 1,000 s.m.	0 to 1 long-term space per 1,500 s.m. (depending on location), 0 to 1 short-term space per 3,000 s.m. (depending on location)	2 spaces, plus 0.25 spaces per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Vehicle Gas Bar	2 spaces plus 1 space per 1,000 s.m.	No spaces required	Not applicable	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Service Station / Repair Shop	2 spaces plus 1 space per 1,000 s.m.	0 to 1 long-term space per 1,500 s.m. (depending on location), 0 to 1 short-term space per 3,000 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Vehicle Sales	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 s.m. to 1,000 s.m. (depending on location), 1 short-term space per 167 to 333 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Veterinary Service	2 spaces plus 1 space per 1,000 s.m.	1 short-term space per 500 to 1,000 s.m.	The greater of 2 spaces or 1 space per 1,000 s.m.	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Industrial					
Warehouse	2 spaces plus 0.25 spaces per 1,000 s.m.	0 to 1 long-term space per 1,500 s.m. (depending on location), 0 to 1 short-term space per 3,000 s.m. (depending on location)	No spaces required	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Manufacturing	2 spaces plus 0.25 spaces per 1,000 s.m.	1 long-term space per 1,000 to 1,500 s.m. (depending on location), 1 short-term space per 2,000 to 3,000 s.m. (depending on location)	2 spaces, plus 0.25 spaces per 1,000 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Institutional					
Public Hall / Building	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 250 to 500 s.m. (depending on location)	The greater of 2 spaces or 1 per 500 s.m.	1 space per 1,000 s.m	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Aggregate Extraction	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Arena	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 250 to 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 1,000 s.m.	1 space per 1,000 s.m	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
School - Elementary	1 space per 10 employees and 1 space per 35 employees	0 or 1 long-term space per 1,000 s.m. (depending on location), 0 or 1 short-term space per 100 s.m. (depending on location)	0.25 spaces per classroom, not including portables	1 space per classroom	Two spaces per each teaching area
School - Secondary	1 space per 10 employees and 1 space per 35 employees	0 to 1 long-term space per 500 to 100 s.m. (depending on location), 0 to 1 short-term space per 100 s.m.	0.5 spaces per classroom, not including portables	1 space per classroom	Two spaces per each teaching area
Church / Place of Worship	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 250 to 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 500 s.m.	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces

Use	Burlington	Kitchener	Oakville	St. Catharines	Waterloo
Recreation Centre	2 spaces plus 1 space per 1,000 s.m.	1 long-term space per 500 to 1,000 s.m. (depending on location), 1 short-term space per 250 to 500 s.m. (depending on location)	The greater of 2 spaces or 1 space per 500 s.m.	1 space per 1,000 s.m	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Golf Course	2 spaces plus 1 space per 1,000 s.m.	0 to 1 parking space per 1,000 s.m. (depending on location)	Not applicable	Not applicable	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Mini Golf	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Bowling Alley	2 spaces plus 1 space per 1,000 s.m.	10% of total required parking spaces	Not applicable	1 space per 1,000 s.m.	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces
Medical Treatment Facility	2 spaces plus 1 space per 1,000 s.m.	0 or 1 long-term space per 750 to 1,000 s.m. (depending on location), 0 or 1 short-term space per 1,500 to 2,000 s.m. (depending on location)	The greater of 2 spaces or 1 space per 500 s.m.	6 spaces plus 1 space per 4,000 s.m;	For uses with a GFA of 2,400 s.m. or less: 10% to 40% of the required parking spaces depending on location For uses with a GFA over 2,400 s.m.: 10% to 40% of the required parking spaces depending on location, 50% of the required bicycle parking must be long-term spaces

Appendix E

Proposed Long-term and Short-term Bicycle Parking Rates

Land Use	APBP Requirement		Recommended Bicycle Parking Requirement	
	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement
Residential				
Single Detached	No spaces required	No spaces required	No spaces required	No spaces required
Single Detached with an Accessory Apartment	With private garage for each unit: no spaces required Without private garage for each unit: 0.5 spaces per bedroom, 2 spaces minimum	No spaces required	1 space per unit without a private garage	No spaces required
Semi-Detached	No spaces required	No spaces required	No spaces required	No spaces required
Semi-Detached with Accessory Apartment	With private garage for each unit: no space required Without private garage for each unit: 0.5 spaces per bedroom, 2 spaces minimum	No spaces required	1 space per unit without a private garage	No spaces required
Duplex	With private garage for each unit: no space required Without private garage for each unit: 0.5 spaces per bedroom, 2 spaces minimum	With private garage for each unit: 0.05 spaces per bedroom, 2 spaces minimum Without private garage for each unit: 0.05 spaces per bedroom, 2 spaces minimum	1 space per unit without a private garage	1 space per unit
Street Townhouse	No spaces required	No spaces required	No spaces required	No spaces required
Cluster Townhouse	With private garage for each unit: no space required Without private garage for each unit: 0.5 spaces per bedroom, 2 spaces minimum	With private garage for each unit: 0.05 spaces per bedroom, 2 spaces minimum Without private garage for each unit: 0.05 spaces per bedroom, 2 spaces minimum	1 space per unit without a private garage	1 space per unit
Stacked Townhouse	With private garage for each unit: no space required Without private garage for each unit: 0.5 spaces per bedroom, 2 spaces minimum	With private garage for each unit: 0.05 spaces per bedroom, 2 spaces minimum Without private garage for each unit: 0.05 spaces per bedroom, 2 spaces minimum	1 space per unit without a private garage	1 space per unit
Tourist Home	Not applicable	Not applicable	1 space per 4 guest rooms	1 space per 2 guest rooms, 2 spaces minimum
Nursing Home	Not applicable	Not applicable	1 space per 250 s.m.	2 spaces, or 6 spaces if GFA is greater than 500 s.m.
Apartment Building	0.5 spaces per bedroom, 2 spaces minimum	0.05 spaces per bedroom, 2 spaces minimum	1 space per unit	1 space per unit
Group Home	Not applicable	Not applicable	Not applicable	Not applicable
Bed and Breakfast	Not applicable	Not applicable	Not applicable	Not applicable
Lodging House Type 1	Not applicable	Not applicable	Not applicable	Not applicable
Commercial				
Office	1 space for every 10,000 s.f. (929 s.m.) of floor area, 2 spaces minimum	1 space per 20,000 s.f. (1,858 s.m.) of floor area, 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum	1 space per 750 s.m., 2 spaces minimum

Land Use	APBP Requirement		Recommended Bicycle Parking Requirement	
	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement
Retail	1 space for every 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Restaurant	Not applicable	Not applicable	1 space per 250 s.m., 2 spaces minimum	2 spaces per restaurant
Restaurant – Take Out	Not applicable	Not applicable	1 space per 250 s.m., 2 spaces minimum	2 spaces per restaurant
Building Supply	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Interior Warehouse	Not applicable	Not applicable	1 space per 1,500 s.m., 2 spaces minimum	1 space per 3,000 s.m., 2 spaces minimum
Car Wash Manual	Not applicable	Not applicable	No spaces required	No spaces required
Car Wash Auto	Not applicable	Not applicable	No spaces required	No spaces required
Cleaning Establishment	Not applicable	Not applicable	1 space per 1,500 s.m., 2 spaces minimum	1 space per 3,000 s.m., 2 spaces minimum
Catering Service	Not applicable	Not applicable	1 space per 1,500 s.m., 2 spaces minimum	1 space per 3,000 s.m., 2 spaces minimum
Commercial Entertainment	Not applicable	Not applicable	1 space per 500 s.m., 2 spaces minimum	1 space per 250 s.m., 2 spaces minimum
Commercial School	Not applicable	Not applicable	1 space per 500 s.m., 2 spaces minimum	1 space per 250 s.m., 2 spaces minimum
Computer Establishment	Not applicable	Not applicable	1 space per 500 s.m., 2 spaces minimum	1 space per 250 s.m., 2 spaces minimum
Construction / Farm Sales	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Contractor’s Yard	Not applicable	Not applicable	1 space per 1,500 s.m., 2 spaces minimum	1 space per 3,000 s.m., 2 spaces minimum
Convenience Store	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Day Care Centre	1 space per 20 employees, 2 spaces minimum	1 space per 20 employees, 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum	1 space per 333 s.m., 2 spaces minimum
Dry Cleaning	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Factory Sales Outlet	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Financial Establishment	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Garden Centre	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Hardware Store	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Liquor Store	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum

Land Use	APBP Requirement		Recommended Bicycle Parking Requirement	
	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement
Medical Clinic	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Medical Office	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Monument Sales	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Office Supply	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Personal Service Establishment	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Print Shop	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Storage Facility	Not applicable	Not applicable	1 space per 1,500 s.m., 2 spaces minimum	1 space per 1,500 s.m., 2 spaces minimum
Hotel	Not applicable	Not applicable		
Repair Service	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Research Establishment	1 space per 10,000 s.f. (929 s.m.) of floor area, 2 spaces minimum	1 space per 20,000 s.f. (1,858 s.m.) of floor area, 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum	1 space per 750 s.m., 2 spaces minimum
Retail Sales / Rental of Furniture and Appliances	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Retail Sales / Rental of Electronics and AV Equipment	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Tradesperson Shop	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Trucking Operation	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Vehicle Gas Bar	Not applicable	Not applicable	No spaces required	No spaces required
Service Station / Repair Shop	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Vehicle Sales	1 space per 12,000 s.f. (1,115 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.f. (465 s.m.) of floor area, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 space per 465 s.m., 2 spaces minimum
Veterinary Service	Not applicable	Not applicable	1 space per 1,000 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
Industrial				
Warehouse	Not applicable	Not applicable	1 space per 1,500 s.m., 2 spaces minimum	1 space per 3,000 s.m., 2 spaces minimum
Manufacturing	1 space per 15,000 s.f. (1,394 s.m.) of floor area, 2 spaces minimum	Subject to municipal zoning	1 space per 1,500 s.m., 2 spaces minimum	1 space per 3,000 s.m., 2 spaces minimum
Institutional				
Public Hall / Building	1 space per 10 employees, 2 spaces minimum	1 space for every 10,000 s.f. (929 s.m.) of floor area, 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum	1 space per 250 s.m., 2 spaces minimum
Aggregate Extraction	Not applicable	Not applicable	No spaces required	No spaces required

Land Use	APBP Requirement		Recommended Bicycle Parking Requirement	
	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement
Arena	1 space per 20 employees, 2 spaces minimum	Spaces for 2% of maximum expected daily attendance	1 space per 1,000 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
School - Elementary	1 space per 10 employees, 2 spaces minimum	1 space per 20 students of planned capacity, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 spaces per 100 s.m., 2 spaces minimum
School - Secondary	1 space per 10 employees plus 1 space per 20 students of planned capacity, 2 spaces minimum	1 space per 20 students of planned capacity, 2 spaces minimum	1 space per 1,000 s.m., 2 spaces minimum	1 spaces per 100 s.m., 2 spaces minimum
Church / Place of Worship	1 space per 20 employees, 2 spaces minimum	Spaces for 2% of maximum expected daily attendance	1 space per 1,000 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
Recreation Centre	1 space per 20 employees, 2 spaces minimum	Spaces for 2% of maximum expected daily attendance	1 space per 1,000 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
Golf Course	Not applicable	Not applicable	1 space per 500 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
Mini Golf	Not applicable	Not applicable	1 space per 500 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
Bowling Alley	Not applicable	Not applicable	1 space per 500 s.m., 2 spaces minimum	1 space per 500 s.m., 2 spaces minimum
Medical Treatment Facility	1 space per 20 employees or 1 space per 70,000 s.f. (6,503 s.m.) of floor area, whichever is greater; 2 spaces minimum	1 space per 20,000 s.f. (1,858 s.m.) of floor area, 2 spaces minimum	1 space per 5,000 s.m., 2 spaces minimum	1 space per 1,500 s.m., 2 spaces minimum