THE MUNICIPAL INFRASTRUCTURE GROUP LTD.
8800 Dufferin Street, Suite 200
Vaughan, Ontario L4K 0C5
T 905.738.5700
F 905.738.0065
www.tmig.ca

March 18, 2019

PROJECT NUMBER 17201

Mr. David Breveglieri
City of Mississauga
300 City Centre Drive, 6th Floor
Mississauga, ON L5B 3C1

Dear Mr. Breveglieri,

Re: Transportation Demand Management and Parking Strategy Report
Lakeview Village Draft Plan of Subdivision, City of Mississauga

Lakeview Community Partners Limited has recently submitted a Draft Plan of Subdivision with supporting planning and transportation studies for the future development of Lakeview Village. The provision, management and supply of parking is of special relevance to the successful implementation of the development. Determining how much parking is necessary for the functional and economic viability of Lakeview Village and for the success of the Lakeshore Connecting Communities Master Plan are critical ingredients of the development.

Our goals in the development and organization of this document are to provide a comprehensive categorization of Transportation Demand Management strategies and best practices for the efficient development of land uses within Lakeview Village. As is often the case when trying to categorize a wide range of items there are instances where one item might legitimately be placed in multiple categories. This document contains many strategies to reduce congestion and single occupancy vehicle challenges faced around new developments by providing transportation alternatives and countermeasures in support of reduced parking rates.

In order to advance the Lakeview Village Development Master Plan, Lakeview Community Partners Limited has retained The Municipal Infrastructure Group Limited to prepare this Transportation Demand Management and Parking Strategy that examines the key considerations mentioned above, with a view to developing a specific plan of action for Lakeview Village. This document expands on the previously submitted Right-of-Way Analysis, Transportation Considerations Study, and Sustainability Report also prepared by The Municipal Infrastructure Group Limited.

We trust the enclosed is sufficient for your needs, but please do not hesitate to contact the undersigned should you require any additional assistance.

Sincerely,
THE MUNICIPAL INFRASTRUCTURE GROUP LTD.

Michael Dowdall, C.E.T., MITE
Project Manager
mdowdall@tmig.ca

J.A. (Jim) Bacchus, B.A., MITE
Director of Transportation Services
jbacchus@tmig.ca

TRANSPORTATION DEMAND MANAGEMENT AND PARKING STRATEGY REPORT

In support of the Amended Zoning By-law for

LAKEVIEW VILLAGE

FINAL ▪ MARCH 2019

REPORT PREPARED FOR

LAKEVIEW COMMUNITY PARTNERS LIMITED
4585 PALLADIUM WAY
BURLINGTON, ON L7M 0W9

REPORT PREPARED BY

THE MUNICIPAL INFRASTRUCTURE GROUP LTD.
8800 DUFFERIN STREET, SUITE 200
VAUGHAN, ON L4K 0C5
(905) 738-5700

TMIG PROJECT NUMBER 17201

this report has been formatted for double-sided printing

CONTENTS

1 INTRODUCTION 1
1.1 Study Purpose 1
1.2 Background 2
1.2.1 Lakeview Village Development Master Plan 2
1.2.2 Phase I – Parking Strategy for Mississauga City Centre 3
1.2.3 City of Mississauga Parking Strategy – Phase II, Port Credit & Lakeview 3
1.2.4 Parking Matters – Mississauga Parking Master Plan and Implementation Strategy (PMPIS) 4
1.2.5 Mississauga Transportation Master Plan 5
1.2.6 City of Mississauga TDM Strategy and Implementation Plan 5
1.2.7 Metrolinx 2041 Regional Transportation Plan 5
2 EXISTING ZONING BY-LAW PARKING REQUIREMENTS 8
2.1 Residential Parking Requirements 8
2.2 Non-Residential Parking Requirements 9
2.3 Mixed-Use Shared Parking Formula 11
2.4 Bicycle Parking 11
3 LAKEVIEW PARKING STRATEGY 12
3.1 Parking Goals for the Lakeview Area 12
3.2 Residential Parking Requirements 12
3.3 Non-Residential Parking Requirements 12
3.4 Mixed-Use Shared Parking Formula 12
3.5 Bicycle Parking 13
3.6 Lakeview Parking Structure and Public Parking 14
4 CITY CENTRE PARKING STRATEGY 16
4.1 Residential Parking Requirements 16
4.2 Non-Residential Parking Requirements 16
4.2.1 Office 16
4.2.2 Commercial 16
4.3 Mixed-Use Shared Parking Formula 17
4.4 Bicycle Parking 17
4.5 Transportation Demand Management and Parking 18
5 MISSISSAUGA TRANSPORTATION MASTER PLAN 20
5.1 Major Nodes 20
5.2 Parking Master Plan 21
5.3 Cycling Master Plan 21
5.4 Transit 21
5.5 Major Attractions 21
5.6 Parking Provision Policies 21
5.7 Smart Management of Traffic and Parking 22

6 MISSISSAUGA TDM STRATEGY AND IMPLEMENTATION PLAN 23
6.1 TDM Plan Vision and Objectives 23
6.2 Bicycle Parking Recommendations 23
7 TRANSPORTATION DEMAND MANAGEMENT 25
7.1 Overview 25
7.2 Guiding Principles 25
7.3 Transportation Demand Management 26
7.4 Proposed TDM Measures 27
7.4.1 Residents 27
7.4.2 Vehicular Parking 27
7.4.3 Technology Trends 28
7.4.4 Cycling 29
7.4.5 Transit 31
7.4.6 Sustainable Parking Strategies 32
7.4.7 Employer or City Actions 33
7.4.8 Financial Incentives or Disincentives 34
7.4.9 Alternative Work Arrangements 35
8 RECOMMENDED PARKING RATES 36
8.1 Residential Parking Requirements 36
8.2 Non-Residential Parking Requirements 38
8.3 Mixed-Use Shared Parking Formula 39
8.4 Bicycle Parking 40
8.5 Bike Share 41
8.6 Lakeview Square Public Parking Structure 43
9 CONCLUSIONS 47
10 REFERENCES 50

FIGURES

Figure 1-1 Lakeview Village Parking Strategy (2018 Development Master Plan) 2
Figure 8-1 2018 Cycling Master Plan proposed Bike Share Service Area 42
Figure 8-2 Potential On-Street Parking Locations 45

TABLES

Table 2-1 City of Mississauga Zoning By-Law Residential Parking Requirements 9
Table 2-2 City of Mississauga Zoning By-Law Non-Residential Parking Requirements 10
Table 2-3 City of Mississauga Zoning By-Law 0225-2007 Part 3 Mixed Use Shared Parking 11
Table 3-1 Lakeview Parking Strategy Report Recommended C4 Zone Shared Parking Schedule 13
Table 3-2 Lakeview Parking Strategy Report Proposed Bicycle Parking Requirements 13
Table 3-3 Port Credit & Lakeview Proposed Minimum Required Shower/Change Facilities per Gender 14
Table 4-1 City Centre Mixed Use Shared Parking Update 17
Table 4-2 City Centre Proposed Bicycle Parking Requirements 18
Table 4-3 City Centre Proposed Minimum Required Shower/Change Facilities per Gender 18
Table 6-1 Mississauga TDM Plan Recommended Minimum Bicycle Parking Requirements 24
Table 8-1 Recommended Lakeview Village Residential Parking Rates 36
Table 8-2 Recommended Lakeview Village Non-Residential Parking Rates 38
Table 8-3 Recommended Lakeview Village Mixed-Use Shared Parking Formulas 39
Table 8-4 Recommended Lakeview Village Bicycle Parking Requirements 40
Table 8-5 Recommended Lakeview Village Minimum Required Shower/Change Facilities per Gender 41

1 INTRODUCTION

1.1 Study Purpose

Lakeview Community Partners Limited (LCPL) has recently submitted a number of planning and transportation studies that support the future development of Lakeview Village. The provision, management and supply of parking are an area of special relevance to the successful implementation of the development achieving. Determining how much parking is necessary for the functional and economic viability of Lakeview Village development programs and the success of the Lakeshore Connecting Communities Master Plan as well as how the right amount of parking is provided are critical ingredients for future success.

Lakeview Village is being planned to mitigate external and internal traffic impacts by controlling the supply of parking in the public realm as well as the site-specific parking supply. Visitor parking will be located within specific developments to satisfy those independent parking rates, but parking will also be provided on many internal collector and local streets. Visitor parking will also be accommodated in a freestanding public parking structure located between Lakeview Square and the Serson Innovation Campus. Any above-grade parking structure will be located to balance accessibility and easily 'intercept' visitors from outside of Lakeview Village with limited visual impact on the public realm. Parking structures will be designed as linear uses wrapping street frontages or will provide screening of parked vehicles with either a façade treatment, graphic panels or landscaping, or some combination of the above. These 'park once' locations are strategically located to serve multiple user groups which will result in higher parking utilization for longer periods and turnover rates that generate multiple vehicles using each space during a 24-hour period.

Residential parking will consist of at-grade private garages for ground-related townhouses. For all other building types, surface parking for visitors may be provided, but most resident and visitor parking will be provided below grade. Driveways and ramps to below-grade parking will be strategically located to provide accessibility from a minor street or rear lane with limited visual exposure from the public realm and to minimize impacts on the street system.

Obtaining zoning by-law permissions for reduced parking rates and / or adopt *maximum* parking standards should and will be considered throughout the development at the Draft Plan of Subdivision and/or Site Plan Application stage, in conjunction with the provision of enhanced transit and active transportation facilities. The extent of the parking reductions shall be considered through specific zoning applications and site-specific parking demand proposals.

Our goals in the development and organization of this document were to provide a comprehensive categorization of TDM strategies, effectiveness and policy areas to make finding specific best practices easier for the development of land uses within Lakeview Village. As is often the case when trying to categorize a wide range of items there are instances where one item might legitimately be placed in multiple categories. This document contains many strategies to reduce congestion and single occupancy vehicle challenges faced around new developments by providing alternatives and countermeasures.

The goal of any TDM plan is to reduce the dependency on personal vehicles to make daily trips to and from work/home. The key to the success of these strategies is to have a sufficient number of alternatives and infrastructure that will replace the need of having a personal vehicle. Education and exposure also play a key role in making the commuters aware of the alternate travel options available.

In order to advance the Lakeview Village Development Master Plan, LCPL has retained The Municipal Infrastructure Group Limited (TMIG) to prepare a Transportation Demand Management and Parking Strategy that examines in depth the key considerations mentioned above, with a view to developing a specific plan of action for the Lakeview Village area. This document expands on the previously submitted Transportation Considerations and Sustainability Reports prepared by TMIG. The conceptual Lakeview Village parking strategy figure presented in 2018 Development Master Plan is shown in **Figure 1-1**.

Figure 1-1 Lakeview Village Parking Strategy (2018 Development Master Plan)

1.2 Background

1.2.1 Lakeview Village Development Master Plan

The Lakeview Village Development Master Plan (DMP) was submitted to the City of Mississauga October 5th, 2018. This Plan is required by the City of Mississauga as a bridge between the policy planning framework in the City's Mississauga Official Plan (MOP) and the eventual detailed development applications yet to be submitted for review and approval by the City. More specifically, the DMP builds on the legacy and vision of the Inspiration Lakeview Master Plan and is essentially a continuation of the past planning and design efforts spearheaded by the City and local residents, advancing the project to develop and execute on the City's vision while fulfilling the City's MOP requirements.

The DMP will provide guidance for future land use planning and development application processes, recognizing that some of today's underlying assumptions may change over time. This does not weaken the content or intent of the Development Master Plan, nor the enclosed Parking Strategy, but rather directs LCPL to consider the broader context and overall area requirements as noted by the MOP and in other applicable

approval authority documents. It is understood that with time, amendments may be pursued or required to the DMP and thus, the Parking Strategy Report embodies an element of fluidity for flexibility in the future.

The DMP, envisages approximately 7,754 residential units (rezoning is for 8,004 units) in the form of apartment condominiums and townhouses, along with approximately 75,884 m^2 of commercial space (including hotel/office uses), approximately 10,355 m^2 of retail space and a significant portion of park land and open space.

The built form of Lakeview Village is planned to control the impacts of parking and servicing on the public realm. Visitor parking will be located on street and accommodated in several free-standing public parking structures located between Lakeview Square and the Serson Innovation Campus. These above-grade parking structures are located to balance accessibility to easily 'intercept' visitors from the larger street network with limited visual exposure from the public realm. Parking structures will be designed to contain liner uses wrapping street frontages or provide screening of parked vehicles with either a façade treatment, graphic panels or landscaping, or some combination of the above. These 'park once' locations are strategically located to serve multiple user groups which will result in higher parking utilization for longer periods and turnover rates that generate multiple vehicles using each space during a 24-hour period.

Residential parking will consist of at-grade private garages for ground-related townhouses. For all other building types, minimal convenience surface parking for may be provided, but resident and visitor parking will be provided below-grade situated under all other building types. Driveways and ramps to below-grade parking will be strategically located to provide accessibility from a minor street or rear lane with limited visual exposure from the public realm.

1.2.2 Phase I – Parking Strategy for Mississauga City Centre

In January 2009, the City of Mississauga commissioned a report for Mississauga City Centre entitled "*Phase I – Parking Strategy for Mississauga City Centre*". The City Centre Parking Strategy is intended to guide and direct the City in meeting future public parking needs, in association with private sector development, in manner that will facilitate the area's transition to a truly urban environment.

This strategy reflected the longer-term urban design, economic development and transportation planning policies established for the area. These include a compact urban form, providing a diversity of uses including significant office and institutional employment opportunities, as well as supporting existing and future transit investment through the use of Transportation Demand Management (TDM) policies and techniques.

1.2.3 City of Mississauga Parking Strategy – Phase II, Port Credit & Lakeview

In June 2014, the City of Mississauga commissioned a report for the Port Credit and Lakeview areas entitled "*City of Mississauga Parking Strategy – Phase II, Port Credit & Lakeview*". The City of Mississauga has recognized that parking can be a powerful tool to achieve a variety of community objectives. Through Phase I - Parking Strategy for Mississauga City Centre, the City has begun to change the way in which parking is managed in its more dense urban environments. Phase II of the Parking Strategy focuses on two established communities along Mississauga's Lakeshore Road: Port Credit and Lakeview.

The purpose of the Phase II study is to build upon the findings of Phase I and to develop an effective Parking Strategy for the Port Credit and Lakeview areas that supports the City's urban design, economic, land use and transportation objectives.

Phase II provides a comprehensive review of the existing parking context in both Port Credit and Lakeview and includes detailed recommendations that will allow the City to meet its objectives. Key issues addressed in this report include:

- locations where the City could build additional public parking to facilitate future development;
- guidance on how the City should approach parking in Lakeview in order to foster the development of a new commercial main street area along Lakeshore Road East in Lakeview;

- how much new off-street municipal parking the City should provide in Lakeview to foster development of commercial uses along Lakeshore Road East;
- recommended modifications to the parking supply rates in the Zoning By-law that will encourage development in the main street areas of Port Credit and Lakeview;
- ways in which the City can foster cultural uses in Port Credit and Lakeview such as art galleries, museums, cultural group offices, heritage buildings, street festivals, and the Transformative Parking Space project;
- recommended bicycle parking supply and end of trip requirements for commercial developments and implementation recommendations; and
- Transportation Demand Management (TDM) objectives to ensure the parking strategy is linked to supporting transit use and active transportation.

1.2.4 Parking Matters – Mississauga Parking Master Plan and Implementation Strategy (PMPIS)

The purpose of the 2017 Mississauga PMPIS Existing Policy and Best Practices Review '*is to seek a strategic approach to parking in Mississauga, through development of a Parking Master Plan and Implementation Strategy (PMPIS). The approach is intended to improve the efficiently and effectiveness of current and future resources dedicated to parking, and also to use parking as a tool to realize the development objectives of the City's planning framework. Parking is an important intersection between transportation and land use, and needs to be addressed proactively*.'

The City's Vision for parking, as stated in the PMPIS is as follows:

> *The City recognizes that parking provides an important service to residents who travel by vehicle around the City. The City's policies and procedures will strike the right balance between improving private and public parking infrastructure and ensuring that all forms of access are considered and fairly promoted as the City grows. The City will strive to ensure a fair apportionment of the costs of parking in the community.*

Based on the review of existing City policy and best practices presented in the PMPIS, the PMPIS '*recommends that the City work towards developing a clear and deliberate parking framework that recognises both the known importance and measurable impact of parking on the City'*. It is recommended that the parking framework be based on the following seven themes:

1. *Vision & Principles - A clear statement of parking's intended contribution to a future Mississauga. Outlines the parking management principles the City will pursue in managing and resolving transportation and land use aspirations as outlines in the Official Plan and Strategic Plan.*
2. *Governance - Outlines the City's administrative processes and governance mechanisms both operational and long term management of parking.*
3. *Paid Parking - Defines and captures the role of the City in determining the appropriate amount of paid parking in the City on an area/precinct basis in accordance with the vision and parking management principles.*
4. *Funding & Finance - A statement of the City's fiscal priorities for parking asset management and strategic investment in parking over time.*
5. *Parking Provisions - City statute that outlines the obligations of land owners and other infrastructure providers to provide and mange parking on public and private land.*
6. *Demand Management - Those parking management principles that are designed to bring about a better balance of supply and demand for parking and guide people to using alternative modes where feasible.*
7. *Technology - Modern parking infrastructure that provides more accurate information on the availability and usage of parking to guide strategic decision making concerning parking supply and management across the municipality.*

*From the best practices and trends outlined within the PMPIS, it is clear that these themes will help to better define the focus for the stages of the **Parking Master Plan and Implementation Plan** (in progress). The intention is to develop a Master Plan that provides the City with the ability to strategically evaluate the role of parking as it moves towards implementing the City's long range strategic vision now and into the future.*

1.2.5 Mississauga Transportation Master Plan

The January 2019 Draft Mississauga Transportation Master Plan (TMP) will shape how people move within the City from present day to 2041. The plan will incorporate the City's vision where everyone and everything has the freedom to easily and efficiently get anywhere at any time.

The plan aims to provide an integrated network with safe, travel options within and beyond the city, with simple and pleasant connections that are accessible regardless of someone's age, ability, income or familiarity with the city. As stated in the TMP:

> *A transportation system that heavily relies on single-occupant vehicle trips is known to face escalating congestion, economic burden, declining air quality, accelerating climate change, negative physical and mental health impacts, and risk of isolation for those who cannot drive or access a personal vehicle. Mississauga is well positioned to escape these perils as the city continues to grow and change, by expanding capacity for other modes of travel alongside the option to drive, and by finding new ways to manage traffic of all kinds as more people travel to, from, and within Mississauga.*

1.2.6 City of Mississauga TDM Strategy and Implementation Plan

The 2017 Mississauga *TDM Strategy and Implementation Plan* addresses the need for Transportation Demand Management (TDM) programs in the City and provides suggestions as to possible programs that could be put in place, new policies and amendments to by-laws, and overall objectives and action steps to achieve the City's TDM Vision.

The City's TDM Vision, as stated in the TDM Plan is as follows:

> *As outlined in its Official Plan, Mississauga aspires to provide seamlessly connected networks and an urban fabric that will enable and motivate sustainable travel by residents. TDM strategies will support this vision, together with policies at the Federal, Provincial, Regional and local levels. Key platforms for TDM delivery will include the development approval process, city-wide programs, and collaborative efforts with key partners.*

Lakeshore Connecting Communities

Lakeshore Connecting Communities is about planning for the future of Lakeshore Road. This master plan study will look at how to best connect the communities of Clarkson, Port Credit and Lakeview while preserving and enhancing the unique character and sense of place of each community. The study will build on recent planning studies to develop a design for the Lakeshore Road corridor from building face to building face that supports all modes of transportation, connects people to places, and moves goods to market. The study will also evaluate rapid transit alternatives east of Hurontario Street as well as extending rapid transit into the Port Credit area.

1.2.7 Metrolinx 2041 Regional Transportation Plan

The 2041 Regional Transportation Plan (RTP) presents a common vision for the region:

> *The GTHA will have a sustainable transportation system that is aligned with land use, and supports healthy and complete communities. The system will provide safe, convenient and reliable connections, and support a high quality of life, a prosperous and competitive economy, and a protected environment. The Goals of the 2041 RTP are to achieve strong connections, complete travel experiences, and sustainable and healthy communities.*

Strategy 2 – 'Connect more of the region with frequent rapid transit' of the 2041 RTP proposes the development of a Frequent Rapid Transit Network across the GTHA to provide high-quality transit to more people in more places. The network is a logical approach to the problem of moving people efficiently by transit in a region with multiple major population and employment concentrations, where travel demand patterns are increasingly dispersed and not simply focused on one central core. This strategy proposes several additional BRT, LRT, Priority Bus, subway and RER projects in addition to existing and planned projects to form an integrated Frequent Rapid Transit Network that will allow people to travel quickly and seamlessly across the GTHA.

As part of complete 2041 frequent rapid transit network strategy within proximity to Lakeview Village, Metrolinx proposes the Waterfront LRT (Lakeshore Road BRT) line extending from Hurontario Street to downtown Toronto, and planned GO expansion to the Lakeshore West Line.

Metrolinx has planned an expansion of GO Transit along many of its rail corridors in order to introduce Regional Express Rail (RER) service to the GTHA. RER service has been planned for the Lakeshore West GO Train line to provide two-way, all day service between Toronto and Aldershot seven days a week.

The RER project, also known as the GO Expansion, will provide express service by increasing the existing 30-minute service on the Lakeshore West line to an average of 15-minute service or better within the next 10 years.

RTP Strategy 3 – 'Optimize the transportation system' states that optimizing the GTHA's transportation system means making the best possible use of existing and future transportation assets. Actions recommended in Strategy 3 include integrating fares and services, planning for the first- and last-mile of each traveller's journey, improving the traveller experience, providing universal access, using design excellence in planning, improving safety, and using roads and highways efficiently.

The Growth Plan was recently updated based on a comprehensive review. The updated plan, which came into effect on July 1, 2017, sets out a broad vision for transportation within the GGH. It includes policies to improve integration between transportation and land use planning decisions across the region, including requiring municipalities to develop and implement TDM policies in official plans and other planning documents.

The 2041 RTP recommends several actions to make TDM programs more attractive such as:

- Collaborate to develop and implement TDM programs as required by the Growth Plan.
- Advance workplace TDM programming and encourage private-sector leadership, participation and investment with mandated participation by large employers, institutions and other venues that generate a significant number of trips.
- Develop new approaches to TDM delivery from the fields of service design and behavioural economics.
- Reinvigorate carpooling with a compelling and user-friendly online regional platform integrated with trip planning and payment tools, and drive participation, including removing regulatory obstacles to user incentives.
- Deliver TDM programming to support all new rapid transit services, transit station areas, and areas impacted by major construction and events.
- Develop incentives for off-peak travel to reduce peak travel demands and, in the case of transit, to grow off-peak ridership.

Strategy 4 – 'Integrate transportation and land use' of the RTP addresses parking management in land use planning as follows:

> *The 2041 RTP presents an opportunity to make parking management a regional priority, and to support development of parking standards, guidelines and supply forecasts that municipalities can use in planning and regulating off-street parking. Parking standards and guidelines could be regionally coordinated, but should remain sensitive to the context and characteristics of different locations. Parking policies should coordinate off-street parking supply with transit expansion, support other alternatives to driving, recognize the need for deliveries and passenger pick-up and drop-off, and encourage innovations such as car-sharing and dynamic parking pricing.*

Approaches that could be quickly implemented across the region include shared parking, unbundled parking for multi-family housing, the provision of bike parking and preferential parking spaces for car-sharing, electric vehicles and carpools; some of these initiatives support Growth Plan policies relating to intensification and Major Transit Station Areas.

2 EXISTING ZONING BY-LAW PARKING REQUIREMENTS

2.1 Residential Parking Requirements

Part 3 of the City of Mississauga Zoning By-law 0225-2007 provides parking supply requirements for the Lakeview and Port Credit areas. Residential parking requirements are detailed in Table 3.1.2.1 of the By-law, and **Table 2-1** summarizes the parking requirements for the residential uses that are permitted within Lakeview Village.

Table 2-1 City of Mississauga Zoning By-Law Residential Parking Requirements

Type of Use	Minimum Off-Street Parking Regulations
Condominium Apartment	1.00 resident spaces / studio unit 1.25 resident spaces / one-bedroom unit 1.40 resident spaces / two-bedroom unit 1.75 resident spaces / three-bedroom unit 0.20 visitor spaces / unit
Rental Apartment	1.00 resident spaces / studio unit 1.18 resident spaces / one-bedroom unit 1.36 resident spaces / two-bedroom unit 1.50 resident spaces / three-bedroom unit 0.20 visitor spaces / unit
Condominium Horizontal Multiple Dwelling	Without exclusive use garage and driveway: 1.10 resident spaces / studio/one-bedroom unit 1.50 resident spaces / two-bedroom unit 1.75 resident spaces / three-bedroom unit 2.00 resident spaces / four-bedroom unit 0.25 visitor spaces / unit With exclusive use garage and driveway: 2.00 resident spaces / four-bedroom unit 0.25 visitor spaces / unit
Rental Horizontal Multiple Dwelling	Without exclusive use garage and driveway: 1.10 resident spaces / studio/one-bedroom unit 1.25 resident spaces / two-bedroom unit 1.41 resident spaces / three-bedroom unit 1.95 resident spaces / four-bedroom unit 0.25 visitor spaces / unit With exclusive use garage and driveway: 2.00 resident spaces / four-bedroom unit 0.25 visitor spaces / unit
Condominium Townhouse Dwelling	2.0 resident spaces / unit 0.25 visitor spaces / unit
Street Townhouse Dwelling	2.0 spaces / unit
Retirement Building	0.50 spaces / unit
Long-Term Care Building	0.33 spaces / bed

2.2 Non-Residential Parking Requirements

The existing Zoning By-law provides non-residential parking supply requirements for the Lakeview and Port Credit areas in Table 3.1.2.2 of the by-law., and **Table 2-2** summarizes the parking requirements for non-residential uses that are permitted within Lakeview Village.

Table 2-2 City of Mississauga Zoning By-Law Non-Residential Parking Requirements

Type of Use	Minimum Off-Street Parking Regulations
Office	3.2 spaces / 100 m^2 GFA – non-residential
Medical Office	6.5 spaces / 100 m^2 GFA – non-residential
Medical Office - Restricted	6.5 spaces / 100 m^2 GFA – non-residential
Retail Store	5.4 spaces / 100 m^2 GFA – non-residential
Retail Store (in a C4 zone)	4.0 spaces / 100 m^2 GFA – non-residential
Personal Service Establishment	5.4 spaces / 100 m^2 GFA – non-residential
Repair Establishment	5.4 spaces / 100 m^2 GFA – non-residential
Take-out Restaurant	6.0 spaces / 100 m^2 GFA – non-residential
Restaurant	16.0 spaces / 100 m^2 GFA – non-residential
Restaurant (in a C4 Zone)	9.0 spaces / 100 m^2 GFA – non-residential
Overnight Accommodation (Hotel)	0.8 spaces per guest room; plus 10.0 spaces / 100 m^2 GFA – non-residential used for public use areas including meeting rooms, conference rooms, recreational facilities, dining and lounge areas and other commercial facilities, but excluding bedrooms, kitchens, laundry rooms, washrooms, lobbies, hallways, elevators, stairways, and recreational facilities directly related to the function of the overnight accommodation
Art Gallery / Museum	3.6 spaces / 100 m^2 GFA – non-residential
Day Care	2.5 spaces / 100 m^2 GFA – non-residential
Public School (up to and including Grade 8)	1.0 spaces / 100 m^2 GFA – non-residential (excluding portables); plus 1.0 spaces / portable classroom
Public School (up to and including Grade 8)	1.0 spaces / 100 m^2 GFA – non-residential (excluding portables); plus 1.0 spaces / portable classroom
Post-Secondary	1.1 spaces / 100 m^2 GFA – non-residential used for academic purposes 0.15 spaces / resident student and/or staff
Commercial School	5.0 spaces / 100 m^2 GFA – non-residential
Science and Technology Facility	3.2 spaces / 100 m^2 GFA – non-residential
Financial Institution	5.5 spaces / 100 m^2 GFA – non-residential; plus a stacking lane where a drive-through is provided
Utility Building	1.0 spaces / staff on duty with a minimum of 2.0 spaces
Waste Transfer Station	1.1 spaces / 100 m^2 GFA – non-residential up to 6,975 m^2 GFA; and 0.6 spaces / 100 m^2 GFA – non-residential over 6,975 m^2 GFA
Composting Facility	1.6 spaces / 100 m^2 GFA – non-residential up to 2,325 m^2 GFA; and 1.1 spaces / 100 m^2 GFA – non-residential between 2,325 m^2 and 9,300 m^2 GFA; and 0.6 spaces / 100 m^2 GFA – non-residential over 9,300 m^2 GFA

2.3 Mixed-Use Shared Parking Formula

The Zoning By-law provides a shared parking formula for mixed-use developments in Table 3.1.2.3, and acknowledges that different land uses will not experience their peak parking demand at the same time of day. Provided as **Table 2-3**, the existing shared parking formula allows for reduced parking supply requirements for mixed-use developments.

Table 2-3 City of Mississauga Zoning By-Law 0225-2007 Part 3 Mixed Use Shared Parking

Type of Use	Percentage of Peak Period			
	Morning	Noon	Afternoon	Evening
Office / Medical Office / Financial Institution	100 (10)	90 (10)	95 (10)	10 (10)
Retail Centre / Retail Store / Personal Service Establishment	80 (80)	90 (100)	90 (100)	90 (70)
Restaurant / Convenience Restaurant / Take-out Restaurant	20 (20)	100 (100)	30 (50)	100 (100)
Overnight Accommodation	70 (70)	70 (70)	70 (70)	100 (100)
Residential – Resident	90 (90)	65 (65)	90 (90)	100 (100)
Residential - Visitor	20 (20)	20 (20)	60 (60)	100 (100)

XX – Weekday, (XX) – Weekend

2.4 Bicycle Parking

At the time of this report, the City of Mississauga's existing general by-law does not state specific bicycle parking requirements for new developments, or provide the number of showers/change facilities required per gender for a given number of required employee bicycle parking spaces.

3 LAKEVIEW PARKING STRATEGY

3.1 Parking Goals for the Lakeview Area

The 2014 *City of Mississauga Parking Strategy – Phase II Port Credit & Lakeview* report provided recommendations for the parking requirements applied to new developments in the Port Credit and Lakeview areas and ways to better manage and utilize existing public parking supply. Specific to the Lakeview area, three general parking goals were identified:

- *to support Good Urban Design and contribute to creating a walkable and transit supportive urban environment by minimizing surface parking and encouraging higher density development through the use of parking facilities that are well located and integrated with primary development;*
- *to foster Economic Development by assisting the private sector in achieving the development vision for Lakeview through the implementation of parking requirements that encourage efficient use of parking resources as well as strategic public investment in the provision of municipal parking facilities and transportation alternatives; and*
- *to support Transportation Demand Management (TDM) by influencing commuter mode choice through parking supply management and pricing and the provision of commuting alternatives through the parking program.*

3.2 Residential Parking Requirements

Reduced residential parking requirements that match those used in the City Centre area were suggested for apartments in close proximity to the Port Credit GO Station and the future Hurontario Street LRT. For these areas in Port Credit, apartment developments were suggested to have a parking requirement of 1.0 resident spaces/unit and 0.15 residential visitor spaces/unit.

The Port Credit and Lakeview parking strategy report covered the entire Lakeview area and not the Lakeview Village development specifically, and as such, overall residential reductions to apply to the Lakeview area were not provided in the report. Given the variation of densities and development potential in the Lakeview area, it was suggested that reductions for residential developments should be assessed on a site-specific basis, largely dependent upon the location of the development and its proximity to transit and other elements that would warrant a reduction in the existing by-law residential parking rates.

3.3 Non-Residential Parking Requirements

Existing parking demand in the commercial areas of Port Credit was surveyed as a part of the Port Credit and Lakeview parking strategy report. It was found that the existing parking demand in the commercial area was lower than the parking rate requirements in the by-law. As such, reduced rates were suggested for commercial areas that could be considered part of a C4 Zone. The reduced rates listed in the report are as follows:

- *3.0 spaces/100m^2 GFA for retail, personal service, repair establishments, art galleries and museums;*
- *4.85 spaces/100m^2 GFA for financial institutions, real estate offices, medical offices, and take-out restaurants;*
- *3.0 spaces/100m^2 GFA for office uses.*

3.4 Mixed-Use Shared Parking Formula

The Port Credit and Lakeview parking strategy report stated that similar to Port Credit, development in the Lakeview area should minimize the required on-site parking by encouraging mixed-use and shared parking

facilities. **Table 3-1** provides the proposed revisions to the existing by-law shared parking formulas to better represent a main street/urban development setting compared to a suburban location.

Table 3-1 Lakeview Parking Strategy Report Recommended C4 Zone Shared Parking Schedule

Type of Use	Percentage of Peak Period			
	Morning	Noon	Afternoon	Evening
Office / Medical Office	100 (10)	90 (10)	95 (10)	10 (10)
Real Estate Office	90 (50)	80 (50)	100 (50)	50 (20)
Financial Institution	70 (90)	75 (90)	100 (90)	80 (20)
Retail Store / Personal Service / Art Galleries / Museums / Repair Establishments	50 (50)	50 (75)	70 (100)	75 (10)
Restaurant / Take-out Restaurant	25 (20)	65 (90)	25 (50)	100 (100)
Hotel – Rooms Hotel – Function Space	50 (70) 95 (95)	25 (25) 100 (95)	25 (25) 90 (90)	65 (50) 95 (95)
Residential – Resident Residential - Visitor	90 (90) 20 (20)	65 (65) 20 (20)	90 (90) 50 (60)	100 (100) 100 (100)

XX – Weekday, (XX) – Weekend

3.5 Bicycle Parking

The Port Credit and Lakeview parking strategy report highlights the importance of providing dedicated bicycle parking and associated facilities in new developments in order to encourage the use of bicycling as a mode of active transportation, particularly for short-distance cycling trips be residents of the developments. In reference to the importance of providing bicycle parking, the report states:

> *The absence of these [cycling] facilities will deter regular bicycle use for non-recreational purposes. Increased cycling will reduce the growth in vehicle trips and support more sustainable urban travel patterns.*

The provision of bicycle infrastructure, particularly parking and shower/change facilities at the origin and destination of a bicycle trip, will encourage the use of bicycles for more than recreational purposes. Bicycling can be seen as an attractive alternative to automotive travel for relatively short trips.

Tables 3-2 and **3-3** summarize the recommended bicycle parking rates and accompanying shower/change facility guidelines outlined in the report.

Table 3-2 Lakeview Parking Strategy Report Proposed Bicycle Parking Requirements

Land Use	Bicycle Parking Standard
Office Uses	0.17 spaces / 100 m^2 GFA – staff plus 0.03 spaces / 100 m^2 GFA – visitor
Retail Uses	0.085 spaces / 100 m^2 GFA – staff plus 0.25 spaces / 100 m^2 GFA – visitor
All Other Non-Residential Uses	4% for staff and 4% for visitors
Residential Apartments and Townhomes[1]	0.60 resident spaces / unit 0.15 visitor spaces / unit

1. *Residential requirement applies to apartments and townhouses that do not have an exclusive garage.*

Table 3-3 Port Credit & Lakeview Proposed Minimum Required Shower/Change Facilities per Gender

Required Number of Employee Bicycle Parking Spaces	Number of Shower Stalls per Gender
0 – 4	0
5 – 29	1
30 – 59	2
60 – 89	3
90 – 119	4
120 – 149	5
150 – 179	6
Over 179	7 plus 1 for each additional 30 bicycle parking spaces

Note: Each gender will also require a change and washroom facility, including storage lockers equal to 0.70 times the number of employee parking spaces provided.

Based on the report's recommendations, new developments that require less than 5 employee bicycle spaces and are thus exempt from needing a shower/change facility include office buildings with less than 2,353 m^2 GFA and commercial buildings with less than 4,705 m^2 GFA, as per the parking requirements outlined in **Table 3-2**.

3.6 Lakeview Parking Structure and Public Parking

According to the Port Credit and Lakeview Parking Strategy report, the City currently has a 'negligible' role in public parking in the Lakeview area, as public parking in a development node or downtown area can range from 25% to 60% of the total commercial parking supply depending on the municipality. The report suggests that the City initially aim for 40% of the overall commercial parking supply in Lakeview to be publicly available, similar to the amount the City supplies in the Port Credit area.

The public parking needs estimate for the Lakeview area was not based upon the specific future development needs of Lakeview Village. Future development forecasts were provided by the City for the 'Lakeview main street area' and were used to estimate the amount of public parking the City should be responsible for in the Lakeview area.

The Lakeview area public parking supply estimation exercise that was conducted as a part of the Port Credit and Lakeview parking strategy report was based on the following assumptions for the Lakeview main street area:

- Approximately 54,800 m^2 (590,000 sq. ft.) of future commercial GFA;
- Overall commercial parking supply rate of 3.0 spaces/100m^2 GFA similar to Port Credit;
- City will control 40% of the total commercial parking supply; and
- Public parking spaces will be provided through a mix of on-street parking, off-street surface lots, and ultimately, one or two parking garage structures

Based on the above assumptions, the report determined that 660 of the approximately 1,650 required Lakeview area commercial parking spaces would need to be provided as public parking by the City. The report identified the opportunity to provide 200 to 275 on-street public parking spots along Lakeshore Road East and on side streets within 25 to 30 metres of Lakeshore Road East. The remaining 385 to 460 spaces of public parking would be located in off-street parking lots to achieve a 40% public parking supply in the Lakeview

main street area. The report suggests that any surface parking lots purchased or constructed by the City should be of sufficient size to support the future development of parking structures as needed.

4 CITY CENTRE PARKING STRATEGY

4.1 Residential Parking Requirements

The City Centre Zoning By-law (By-law 0005-2001) approved residential parking rates of 1.0 spaces/unit and removed residential visitor parking requirements. However, after complaints of a lack of visitor parking by residents of buildings built under the new 2001 by-law, a rate of 0.15 residential visitor spaces/unit was implemented in 2008.

In the case of a mixed-use development, the following parking calculation provision was made to account for the possibility to share residential visitor parking with non-residential parking requirements for the same building:

> *the greater of:*
>
> *0.15 visitor spaces per unit*
>
> *or*
>
> *Parking required for all non-residential uses, located in the same building or on the same lot as the residential use, except banquet hall/conference centre/convention centre, entertainment establishments, overnight accommodation, places of religious assembly, recreational establishments and restaurants which are not permitted in the shared parking arrangements and shall be provided in accordance with applicable regulations contained in the new general zoning By-law.*

In general, the goal of the reduced residential parking rates in the City Centre was to help encourage compact, urban growth.

4.2 Non-Residential Parking Requirements

4.2.1 Office

In the 2009 Parking Strategy for Mississauga City Centre Report, it is suggested that the current parking requirement for office uses be reduced from 3.2 spaces/100m^2 GFA to 2.7 spaces/100m^2 GFA. This was based upon comparing the existing mode split of auto drivers and the demand target for reducing auto trips in the future. At the time of the report, the existing auto driver mode split of 75% supported the 3.2 spaces/100m^2 GFA parking requirement. A goal of 62.5% auto driver mode split was the base of the reduced 2.7 spaces/100m^2 GFA parking rate recommendation.

The existing auto driver mode split of 75% corresponds to a 13% transit mode split, and the goal of 62.5% auto driver mode split corresponds to an increased transit mode split of 20%. The report notes that if the Metrolinx Mobility Hub transit mode split of 30% were reached, the target office parking rate could be lowered to 2.31 spaces/100m^2 GFA.

Overall, the recommendation of lowering the required office parking rate within the City Centre as transit service increases indicates the relationship between vehicle parking supply and transit ridership. If there is an excess of easily accessible parking, despite good transit services in the area, the auto driver mode of transportation will still look more appealing than transit or active transportation modes of travel.

4.2.2 Commercial

The City Centre parking strategy report highlights the need to consider the tendency of mixed-use developments to require a reduced parking supply, as a substantial component of the patrons will access the retail and restaurant uses of the mixed-use development from nearby offices, residential dwellings, or other commercial locations. These patrons from adjacent or attached uses would be considered part of a ‘captive market’ that would walk to the mixed-use development due to their proximity as opposed to driving and

requiring a parking space. As such, it is recommended that a parking rate of 2.7 to 3.2 spaces/100m^2 of mixed commercial space be adapted in the City Centre area, especially considering the high degree of transit accessibility in the area.

4.3 Mixed-Use Shared Parking Formula

The 2009 *Parking Strategy for Mississauga City Centre* Report reviewed the existing general zoning by-law's mixed-use development shared parking formula and made recommendations of updated percentages specific to the City Centre area. The City Centre report recognizes that the existing shared parking formulas listed in the by-law were designed to be applied to developments throughout the city and are inherently designed to be conservative.

The adjusted parking rates recommended for use in the City Centre are provided in **Table 4-1** in addition to the existing by-law rates as a point of comparison.

Table 4-1 City Centre Mixed Use Shared Parking Update

Type of Use	Percentage of Peak Period			
	Morning	Noon	Afternoon	Evening
Office / Medical Office / Financial Institution	100 (10)	90 (10)	95 (10)	10 (10)
Retail – Personal Service	80 (80) 50 (65)	90 (100) 50 (80)	90 (100) 70 (100)	90 (70) 75 (30)
Retail – Core Commercial	80 (80) 45 (85)	90 (100) 65 (100)	90 (100) 75 (100)	90 (70) 80 (85)
Restaurant / Convenience Restaurant / Take-out Restaurant	20 (20) 25 (20)	100 (100) 40 (85)	30 (50) 25 (50)	100 (100) 100 (100)
Overnight Accommodation *Rooms* *Other*	70 (70) 50 (70) 95 (95)	70 (70) 25 (25) 100 (95)	70 (70) 25 (25) 90 (90)	100 (100) 65 (50) 95 (95)
Residential – Resident Residential – Visitor	90 (90) 90 (90) 20 (20) 20 (20)	65 (65) 65 (65) 20 (20) 20 (20)	90 (90) 90 (90) 60 (60) 20 (60)	100 (100) 100 (100) 100 (100) 100 (100)

Existing By-law: XX – Weekday, (XX) – Weekend
Amendments: *XX – Weekday, (XX) - Weekend*

4.4 Bicycle Parking

The City Centre parking strategy report discussed the importance of increasing the available number of bicycle parking spaces for residents, employees, and visitors to help present biking as a viable and attractive method for not just recreation purposes, but for daily commuting. The City Centre report reviewed current bicycle parking requirements and associated shower/change facilities in Toronto and provided the recommendations listed in **Tables 4-2** and **4-3**.

Table 4-2 City Centre Proposed Bicycle Parking Requirements

Land Use	Employees / Residents[1]	Visitors	Total
Office	0.17 / 100 m^2	0.03 / 100 m^2	0.20 / 100 m^2
Retail / Restaurant / Personal Service	0.085 / 100 m^2	0.25 / 100 m^2	0.335 / 100 m^2
All Other Non-Residential Uses	4%	4%	8%
Residential Apartments and Townhouses[2]	0.60 / unit	0.15 / unit	0.75 / unit

1. *Employee and resident parking must be provided in a secure area or bicycle locker. Visitor parking can be provided in lockable bike racks or posts.*
2. *Apartments, townhouses, and horizontal multiple dwellings which do not have an exclusive use garage and driveway.*

Table 4-3 City Centre Proposed Minimum Required Shower/Change Facilities per Gender

Required Number of Employee Bicycle Parking Spaces	Number of Shower Stalls per Gender
0 – 4	0
5 – 29	1
30 – 59	2
60 – 89	3
90 – 119	4
120 – 149	5
150 – 179	6
Over 179	7 plus 1 for each additional 30 bicycle parking spaces

Note: Each gender will also require a change and washroom facility, including storage lockers equal to 0.70 times the number of employee parking spaces provided.

4.5 Transportation Demand Management and Parking

The importance of using reduced parking rates to achieve Transportation Demand Management objectives was discussed in the City Centre parking strategy report. The TDM objectives for the City Centre included reduced auto modes of transportation over time through increasing transit capacity through the area, in particular the introduction of BRT service in 2012.

In order to achieve the TDM objectives, the following changes to the existing zoning by-law were suggested:

- *reduce the requirement for office space to a minimum of 2.7 [parking] stalls per 100m^2 GFA when the initial phase of the BRT is opened in 2012;*
- *require office and institutional developments to designate 10% of the total parking supply for car and van pool as well as auto share spaces;*
- *require non-residential uses to provide designated bicycle parking, change rooms and shower facilities in a convenient, weather-protected and secure area for approximately 4% of employees and 4% of visitors;*
- *require residential apartments and townhouses to provide designated bicycle parking in a convenient, weather-protected and secure area at the rate of 0.60 and 0.15 spaces per unit for residents and visitors respectively.*

Of particular note to be applied to Lakeview Village is the acknowledgement that if offices (and other uses) are within close proximity to higher-order transit options, such as the BRT route that is being planned along

Lakeshore Road East as a part of the Lakeshore Connecting Communities Study, a reduction in required parking spaces for that use will aid in driving up the ridership of the higher-order transit.

5 MISSISSAUGA TRANSPORTATION MASTER PLAN

The 2019 Draft Mississauga Transportation Master Plan (TMP) reviews the current state of Mississauga's transportation network and considers the potential changes that will be needed between the current day and 2041 to maintain the existing network while also diversifying the network to support multiple modes of transportation to promote equity of travel.

The Master Plan considers the City's transportation system to include, and be an interconnected system of:

- *infrastructure such as roads, rail, highways, sidewalks, and trails;*
- *public rights-of-way, waterfronts, green spaces, and the lands adjacent to them;*
- *public services such as transit, municipal parking, and traffic management;*
- *regulations that govern service providers such as taxis, Transportation Network Companies (TNCs), and towing and delivery vehicles; and*
- *people who travel and engage with rules, etiquette, and on-going education*

Although the Master Plan focuses on many different aspects of Mississauga's transportation system, there are some key comments and action points put forth in regards to both vehicular and bicycle parking.

5.1 Major Nodes

Lakeview Village has been identified as a 'major node' area within Mississauga. The TMP identifies major nodes as areas of current and future growth and provide opportunities for the parking supply to be designed and managed in such a way that it will be better matched, or more adaptable, as demand and travel patterns change. Development of the nodes will provide a focus on active transportation modes such s walking and cycling by providing dedicated infrastructure. A variety of parking will also be designed, including traditional vehicles, bicycles, electric car charging stations, motorcycle parking, etc.

Furthermore, the TMP suggests that nodes will be home to two-thirds of Mississauga's new residents and workers:

> *Two-thirds of new residents and workers in Mississauga will be centred at nodes. Nodes will flourish, creating new homes in a range of sizes and prices together with new jobs in diverse industries. They will also support a range of local shops, businesses, and services. Their roles as hubs for local activity will grow, drawing in people from surrounding neighbourhoods and beyond.*
>
> *People will be as likely to arrive in the node by transit as by car. Within the node, people will walk and cycle as a first choice. Better provision of road-crossing points will make it easier to walk within the node, and new walkways will provide access to the node's amenities for residents in surrounding neighbourhoods. Driving and cycling will be less stressful, with clearly defined space for all vehicle types and smart signals that adapt to the flow of traffic.*
>
> *Parking supply will be better matched to demand as travel patterns change. It will include spots for bikes, electric car charging, motorcycles, and other vehicles. Trucks bringing shipments into stores and businesses will mostly come and go overnight to minimize disruption. Nodes will be as active in the evenings as they are in the day, with restaurants and entertainment venues animating the neighbourhood after working hours.*

5.2 Parking Master Plan

The TMP identifies the importance of the City's upcoming Parking Master Plan that will guide the future provision and management of parking. The Parking Master Plan *"will ensure a more flexible approach to managing parking and balancing the requirements of drivers, land-owners, and other city policies"*.

5.3 Cycling Master Plan

The recently-approved Mississauga Cycling Master Plan includes research on how people feel about their cycling abilities. *'The most common concern is fear of sharing the roadway with motor vehicles. The research also shows that 96% of survey participants would increase or continue their cycling use if more comfortable bicycle facilities were in place. The TMP establishes priorities for the advancement of cycling in Mississauga, including:*

- *expanding the network of cycling facilities, such as cycle tracks, multi-use trails, and separated bike lanes*
- *establishing a city-wide bike parking program*
- *offering cycling education, often in partnership with other agencies'*

5.4 Transit

Growing GO Train ridership and finite parking space within Mississauga was listed in the TMP as an opportunity to reshape the Transit Terminals and Stations into transportation hubs that will provide infrastructure for multiple modes of transportation and supplement economic growth and development in the areas surrounding these hubs. Residents near these hubs will have access to many common amenities around them and a direct connection to transit to get them anywhere else they may want travel to in Mississauga, the Region of Peel, or the broader GTHA.

5.5 Major Attractions

By 2041, a goal of the City is to provide visitors to Mississauga with a connected transportation system. One example given is that a mix of web-based resources, signs, and other features will be a part of the City's wayfinding system that will guide visitors and residents alike to find major attractions. These major attractions will promote transit as a means to get to their site as a way of reducing traffic and parking demand. A similar method of promoting alternative travel choices will also help alleviate the traffic and parking stress that a community or major attraction experiences during a festival or major event.

As a major node and a waterfront site, Lakeview Village will have the potential to host many such events and become a major attraction. A high degree of transit and active transportation connectivity to the surrounding transportation network will be a key factor in reducing the parking needs in Lakeview Village during special events or festivals.

Some parking facilities within the Serson Innovation Corridor may be designed primarily for office parking, but with an awareness that they will be used for special events as well. Event parking requires another level of planning and design to accommodate the acceptance of up-front payment and peak egress traffic flow.

5.6 Parking Provision Policies

Review and update City-wide parking provision policies and related requirements in line with the recommendations of the Parking Matters study and Transportation Demand Management Strategy and Implementation Plan.

5.7 Smart Management of Traffic and Parking

Mississauga's new Advanced Traffic Management System (ATMS) is being used to improve the performance of the road network through dynamic signalling and signage. As there is limited scope to build new roads or widen existing roads, the ATMS will enable the road network to work smarter, not harder. Transportation Demand Management policies and initiatives can also support smarter use of the existing network. Similarly, because parking consumes land, reducing demand and sharing space can provide a smarter way to manage parking.

Action Plan

Four points of the Transportation Master Plan's Action Plan addressing current and future parking needs:

Action 7 – Parking Provision Policies

Review and update City-wide parking provision policies and related requirements in line with the recommendations of the Parking Matters study and Transportation Demand Management Strategy and Implementation Plan.

Action 21 – Zero-emission vehicle strategy

Develop a zero-emission vehicle (ZEV) strategy that examines incentives to increase use of ZEVs and the infrastructure needs of ZEVs in Mississauga, including those related to new developments, retrofits of existing developments, public buildings, and public parking lots.

Action 22 – Electric Vehicle Charging Stations

Investigate requirements for electric vehicle charging stations in new developments as part of zoning by-law's parking requirements review.

Action 53 – Bicycle Parking Supply

Expand supply of short-term and long-term bicycle parking supply city-wide, in line with the Cycling Master Plan.

6 MISSISSAUGA TDM STRATEGY AND IMPLEMENTATION PLAN

6.1 TDM Plan Vision and Objectives

The 2017 Mississauga *TDM Strategy and Implementation Plan* addresses the need for Transportation Demand Management (TDM) programs in the City and provides suggestions as to possible programs that could be put in place, new policies and amendments to by-laws, and overall objectives and action steps to achieve the City's TDM Vision.

The City's TDM Vision, as stated in the TDM Plan is as follows:

> *As outlined in its Official Plan, Mississauga aspires to provide seamlessly connected networks and an urban fabric that will enable and motivate sustainable travel by residents. TDM strategies will support this vision, together with policies at the Federal, Provincial, Regional and local levels. Key platforms for TDM delivery will include the development approval process, city-wide programs, and collaborative efforts with key partners.*

Four TDM Objectives were listed in the TDM Plan that would guide the success of the Plan and assist in achieving any proposed mode share targets that may be laid out in the City's Transportation Master Plan. The following is an excerpt from the TDM Strategy and Implementation Plan that list the four main TDM Objectives:

1. ***Shift Travel Behaviour*** *- Mississauga will shift travel demand from predominantly single-occupant vehicles to more sustainable modes including walking, cycling, transit, carpooling and carshare/bikeshare. It will also reduce the overall number of trips taken by encouraging telework, trip chaining and trip consolidation.*
2. ***Integrate Transportation and Land Use Planning*** *- Mississauga will continue to integrate transportation and land use planning to ensure the transportation network supports higher density, mixed-use developments. This combination will make sustainable travel options more competitive, and encourage residents to use them more often.*
3. ***Use Existing Transportation Infrastructure More Efficiently*** *- By shifting travel demand from driving to sustainable modes, Mississauga's TDM measures will encourage the efficient use of existing infrastructure and manage the need to expand road networks and parking supplies.*
4. ***Improve Health, the Environment, and the Equality of Life****. The City will:*
   - *Improve public health in the community by encouraging physical activity, reducing pollution, and lowering stress from driving;*
   - *Reduce greenhouse gas emissions, stormwater run-off and other pollution from motor vehicles and supporting infrastructure; and*
   - *Boost the quality of life for all residents by improving travel options, creating walkable and compact communities, and enhancing the sense of place.*

6.2 Bicycle Parking Recommendations

The TDM Plan reviewed bicycle parking requirements currently in effect in Oakville, Halifax, the Vaughan Metropolitan Centre, Toronto (Zone 1 only), and Vancouver. Bicycle parking requirements were based on two classes of parking. Class A parking was described as long-term parking, and Class B as short-term parking. To compare these rates to those presented elsewhere in the report, Class A is understood to be permanent parking required for residents and employees, while Class B is interpreted as visitor parking.

Table 6-1 lists the minimum bicycle parking requirements by land use type recommended by the TDM Plan. **Table 6-2** provides the recommended end-of-trip (shower/change) facilities required for a given range of required Class A bicycle spaces.

Table 6-1 Mississauga TDM Plan Recommended Minimum Bicycle Parking Requirements

Land Use	Bicycle Requirement Class	
	Class A (Long-term)	Class B (Short-term)
Residential Apartments and Multi-Unit Dwellings	0.8 spaces / unit	Minimum 6 spaces for visitors
Retail	0.5 spaces / 500 m^2 GFA	1.0 spaces / 500 m^2 GFA
Business Office	0.5 spaces / 500 m^2 GFA	0.5 spaces / 500 m^2 GFA
Medical Office	0.5 spaces / 500 m^2 GFA	0.5 spaces / 500 m^2 GFA
Employment	0.5 spaces / 500 m^2 GFA	Minimum 2 spaces
Elementary School & Secondary School	1 space / 15 students	1 space / 10 students
Post-Secondary School	1 space / 15 students	1 space / 15 students
Institutional	0.5 spaces / 500 m^2 GFA	0.5 spaces / 500 m^2 GFA

Table 6-2 Mississauga TDM Plan Recommended End-of-Trip Facilities Requirements

Required Number of Class A Bicycle Spaces	Toilets	Bathroom Sinks	Showers and Lockers
0 – 3	0	0	0
4 – 29	1	1	1
30 – 64	2	1	2
65 – 94	3	2	3
95 – 129	4	2	4
130 – 159	5	3	5
160 – 194	6	3	6
Over 194	6 plus 1 for each additional 30 bicycle spaces	3 plus 1 for each additional 30 bicycle spaces	6 plus 1 for each additional 30 bicycle spaces

7 TRANSPORTATION DEMAND MANAGEMENT

7.1 Overview

Transportation Demand Management (TDM) strategies are methods aimed at influencing the frequency, mode, time, route and length of travel of everyday people with the goal of increasing efficiency and sustainability of transportation facilities. TDM strategies typically include providing information on travel choices, financial incentive and disincentives, safe alternative travel facilities, regulating parking, marketing, flexing working schedules and any other program that makes the use of driving single occupied vehicle less attractive.

Our goals in the development and organization of this document were to provide a comprehensive categorization of TDM strategies, effectiveness and policy areas to make finding specific best practices easier for the development of land uses within Lakeview Village. As is often the case when trying to categorize a wide range of items there are instances where one item might legitimately be placed in multiple categories. This document contains many strategies to reduce congestion and single occupancy vehicle challenges faced around new developments by providing alternatives and countermeasures.

The goal of any TDM plan is to reduce the dependency on personal vehicles to make daily trips to and from work/home. The key to the success of these strategies is to have a sufficient number of alternatives and infrastructure that will replace the need of having a personal vehicle. Education and exposure also play a key role in making the commuters aware of the alternate travel options available.

TMIG submitted a Transportation Considerations Report to the City in support of the Lakeview Village Development Master Plan in January 2019. The Transportation Considerations Report provides a more detailed TDM Plan intended to support the development plan by outlining TDM measures and suite of strategies under consideration to promote the use of more active and sustainable transportation modes, respond to the mobility needs of residents, employees and patrons of the site, and reduce dependence on the private automobile, especially SOV travel.

7.2 Guiding Principles

City of Mississauga Official Plan

Per the City of Mississauga Official Plan Policy 8.5 "*Transportation demand management (TDM) measures encourage people to take fewer and shorter vehicle trips to support transit and active transportation choices, enhance public health and reduce harmful environmental impacts. TDM is most effective when supported by complementary land use planning, good urban design and transit improvements*." Typical TDM measures highlighted in the City's Official Plan include:

- To encourage TDM strategies that promote transit use and active transportation, and reduce vehicle dependency, single occupant vehicle travel, trip distance and time and peak period congestion.
- To manage parking in intensification area to encourage the use of alternative modes of transportation and the reduction of vehicular congestion;
- To encourage land uses permitted by this Plan that make efficient use of the transportation system and parking facilities during off-peak hours.
- In appropriate areas, to encourage a fee for parking and the separation of parking costs from other costs, such as transit fares, building occupancy and residential unit prices.

Region of Peel Official Plan

Policy 5.9.9 of the Region of Peel Official Plan (OP) states "*Growth in population end employment in Peel Region has led, and will continue to lead, to increased travel demand through the construction of new roads*

and the widening of existing roads. Such "supply side" solutions, however, will not be enough in the future. Exclusive dependence on roads is neither sustainable nor desirable. It is necessary to also consider "demand side" solutions, such as Transportation Demand Management measures. While TDM alone cannot be expected to meet the future growth in demand, it is an important component of the range of solutions that will be needed to meet forecast travel demand.":

Peel Region TDM objectives include:

- To reduce auto dependency by promoting sustainable modes of transportation;
- Work with all levels of the public and private sectors to develop programs that place primary consideration on the reduction or elimination of trips and the increased use of sustainable modes of transportation and to develop programs for implementing these and other travel demand management strategies.
- Work with the area municipalities, local Transportation Management Associations and school boards to evaluate and measure to progress of TDM programs and to develop new innovative strategies and initiatives.
- Encourage area municipalities, local Transportation Management Associations and the private sector to develop parking management strategies that make more efficient use of parking resources and that encourage the use of sustainable modes of transportation.
- Encourage area municipalities to update their parking and zoning by-laws to support and facilitate transportation demand management measures.

7.3 Transportation Demand Management

Transportation Demand Management can be defined as a broad set of strategies that strive to either reduce or reallocate private SOV travel to achieve benefits such as reduced roadway congestion, improved air quality, reduced energy use and greenhouse gas emissions, **reduced parking demand**, improved public health for those biking or walking, and reduced commuting and travel costs.

TDM may include the following types of strategies:

- Physical – The infrastructure required to support mode shift or trip reduction, e.g., parking reductions, pedestrian and bicycle infrastructure, transit facilities, on-site amenities;
- Operational – Actions to facilitate mode shift or trip reduction, e.g., ride-sharing/matching software, transit services, real-time travel information;
- Financial – Using economics to affect trip choice, e.g., parking pricing, cash-out parking, pre-tax or discounted transit passes; and
- Organizational – Efforts that bring activities and institutions together to implement TDM, e.g., education and information distribution, employer promotion of telework or alternative work schedules, land use planning, and transportation management associations (TMA) such as Smart Commute.

TDM promotes the strategies listed above to reduce number of single-occupant vehicles and reduce private vehicle dependency to create a sustainable transportation system by encouraging non-auto modes of travel. Other benefits of TDM strategies include the following:

- Reduced auto-related emissions to improve air quality
- Decreased traffic congestion to reduce travel time
- Increased travel options for businesses and commuters
- Reduced personal transportation costs and energy consumptions
- Support Region's Sustainable Transportation Strategy (STS) objectives

The combined strategies and benefits listed above will assist in creating a more active and liveable community through improvements to overall active transportation facilities for the local residents, businesses and surrounding community.

TDM is most effective when it provides alternatives to driving alone that are attractive from a time, cost, and/or convenience standpoint. Long trip distances, localized congestion, limited parking at some destinations, and rising fuel costs are all factors potentially supporting TDM in Mississauga, as are compact, walkable communities, and environmental values held by residents.

7.4 Proposed TDM Measures

The TDM approach proposes a mix of hard and soft measures to meet the objectives and targets to reduce vehicular demand and encourage passenger, transit, cycling, and walking. Details are reviewed with each of the following TDM measures.

7.4.1 Residents

7.4.1.1 Information Distribution

City of Mississauga in collaboration with the developers to provide contents and materials for inclusion into an information package for all new residents on available pedestrian trails, cycling, and transit facilities and carpool options including community map, regional and municipal transit (MiWay) route maps, GO Transit route map and schedules, and information on the City of Mississauga Smart Commute organization and its programs.

7.4.1.2 Commuter Options Brochure

City of Mississauga in collaboration with the developers to consider a customized commuter options brochure for new residents. This brochure will contain details on a variety of travel options such as: local/regional transit, parking information, location of HOV lanes and cycling routes and bicycle parking.

7.4.2 Vehicular Parking

7.4.2.1 Reduced Parking Provisions

Obtaining zoning by-law permissions to permit reduced parking rates and / or adopt *maximum* parking standards should and will be considered throughout the development at the Draft Plan of Subdivision and/or Site Plan Application stage, in conjunction with the provision of enhanced transit and active transportation facilities. Mixed-use developments, that blend / share parking supply strategies should also be encouraged / situated where appropriate throughout the development. The extent of the parking reductions shall be considered through specific zoning applications and site-specific parking demand proposals but should also consider the 'destination effect' of the proposed Lakeshore community facilities.

7.4.2.2 Unbundled Resident Parking

The developer should also consider separate (or unbundled) resident parking to separate the cost of parking from the cost of each residential unit. This will make visible the often-hidden cost of driving and encourage residents to make informed active transportation decisions that may create opportunities for the use of more sustainable modes of transportation.

Indeed, waiting on the results of pre-sale interest before deciding on the ultimate parking provision for a given building(s) might be one way to try and avoid an over-supply of parking spaces. We see the parking supply evolving as Lakeview Village develops and as broader transit initiatives that affect resident's travel patterns come on line, but at the same time it will be important to encourage alternative modes of travel at the outset of development so that such travel habits are formed early.

7.4.2.3 Public Parking

Parking TDM strategies include reducing the available supply of public parking and increasing the cost of same. Parking fees are a disincentive TDM strategy implemented to discourage the use of single occupancy vehicles in the area. Limiting the amount of free parking may encourage individuals to take transit, walk, cycle, or carpool with friends or co-workers.

The presence of hourly parking pricing also reduces dwell time and encourages faster turnover of vehicles, which increases the capacity for vehicles to enter and exit Lakeview Village.

7.4.2.4 Employee Parking Cash Out

Employers offering free or subsidized parking to employees can implement parking cash out. Under a parking cash out program, an employer gives employees a choice to keep a parking space at work, or to accept a cash payment and give up the parking space.

Parking cash out programs are one of the most effective means to encourage employees not to drive alone to work. Cash out programs are an effective means of allocating scarce parking or managing a growing demand for more parking.

Parking cash out programs benefit employees because they allow employees to choose whether or not to continue driving alone. Employees perceive these programs as fair since nobody is forced to stop driving or give up free parking, but those who do are rewarded financially.

Although any employer who pays for parking can implement parking cash out, it works best for employers who lease, rather than own, parking.

7.4.2.5 Car Share

The transportation system for Lakeview Village will be designed to encourage Smart Commute, Ride Share, and Carpooling. This will reduce vehicle trip generation, reduce traffic delays, alleviate congestion, and reduce energy consumption and emissions. However, the owner in collaboration with the property manager will investigate the provision of a shared vehicle parking space on the subject property. The availability of a shared vehicle would allow future residents who would not normally need a vehicle for daily activities to be comfortable with the decision not to own a vehicle, as access to a vehicle would be available. There are several car share companies operating within the City of Mississauga that can provide this service.

7.4.3 Technology Trends

The goal is to build effective connections between people and places through a street network that accommodates diverse ages and abilities by using multiple travel modes and shared mobility options, and a high-quality digital network providing equitable connectivity.

This will be achieved through a focus on:

- Street Network
  - Street network designed to accommodate all modes of transportation with a strong emphasis on pedestrian and bicycle corridors.
  - Street network designed to accommodate people with a diverse range of age and ability.
- Mobility
  - Shared mobility options are to be available through shared car and shared bicycle facilities.
  - A shuttle bus service (potentially using alternative fuels or a hybrid / electric) will be available to assist residents and employees in accessing the higher order public transit on Lakeshore Road until such time when public transit is extended into the community.

Beyond traditional bus transit methods, new technologies and initiatives are presenting alternative options that focus on first and last mile issues and have recently emerged as real considerations for new community development. These include micro transit options, shared private services (such as supercool or Lyft), and

even autonomous vehicle services. Regardless of the ultimate (or phased-in) method selected, the focus will remain on introducing a transit model that will promote significant increases in the modal split to transit and away from private car use.

7.4.3.1 Ride-share / Carpooling / Smart Commute

The transportation system for Lakeview Village will be designed to encourage Smart Commute, Ride-share, and carpooling to reduce vehicle trip generation, traffic delays, energy consumption and emissions, and to alleviate congestion.

Carpooling is a travel option that allows commuters to share journeys, thereby reducing the travel costs for each participant, with benefits of savings on tolls, fuel costs and vehicle wear and tear. Additional benefits include the travel option being environmentally friendly and sustainable with reduction in carbon emissions, congestion, parking requirements and driving stress.

Smart Commute is a carpool option available in the Greater Toronto and Hamilton Area that helps local employers and commuters explore different commuting choices like carpooling, cycling and transit. It provides incentives allowing carpools registered with Smart Commute reserved parking spaces provided at some business, offices and other institutions.

Carpooling can be used for everyday work commutes, elderly residents, as well as people with physical limitations who may be prevented from getting to their destination on their own. In these instances, carpooling and shuttle services are important transportation options. The marketing of these opportunities and availability of the services should be provided in further detail to better inform these individuals.

Ride-Sharing programs should be encouraged and explored within Lakeview Village. Operation and management of a ride-share program on-site could include providing information and communication items that outline the availability of the on-site ride-share services as well as broader taxi / Uber / other ride provider service networks.

7.4.3.2 Car-Share Program

Car-share services allow members to make use of a vehicle on a daily / hourly basis as required and offers such access without the need for residents / tenants to own a vehicle themselves. This, in turn, reduces the need for residents / tenants to own a private vehicle which lowers parking space needs and also contributes to a reduction in automobile use for day-to-day commuting activity.

The introduction of car-share programs to the Lakeview Village development should be considered, as car-share companies already operating in Mississauga, such as Enterprise CarShare and ZipCar, do not currently have car-share locations within vicinity of the site. The developer and City should consider the feasibility and benefits of locating car-share facilities within Lakeview Village, and potential credits towards reduced parking provisions.

7.4.3.3 Electric Vehicle Charging

A portion of residential and commercial parking spaces throughout Lakeview Village should be outfitted with electric vehicle charging capabilities. Providing electric vehicle charging stations / parking spaces will assist in promoting the use of electric vehicles and falls in line with the sustainability goals outlined in the Lakeview Village Development Master Plan.

7.4.4 Cycling

7.4.4.1 Pedestrian and Bicycle Network Facility Network Map/Exhibits

People who cycle for recreational purposes are good groups to target as potential commuter cyclists. They have access to a bicycle and may already be familiar with the City's network of cycling and trail facilities. Many residents, however, may have simply never tried cycling and could be unfamiliar with appropriate routes, techniques and advice for commuting to work / school by bike. This could be reinforced through a Bicycle

Network Way-finder Map for residents that could be handed out as a pamphlet during regular communications throughout the year (i.e. Board meetings.).

Short-distance commuters could be targeted with messages focusing on the convenience, cost and health benefits of walking or cycling to work. In addition, practical advice regarding route selection, bike parking, and remaining active in cold or wet weather would be useful and affective. This information could be provided to residents during regular communications throughout the year

Elderly residents as well as people with physical limitations may be prevented from getting to their destination on their own. In these instances, carpooling and shuttle services are important transportation options. The marketing of these opportunities and availability of the services should be provided in further detail to better inform these individuals.

7.4.4.2 Bicycle Parking

The provision of bicycle parking throughout Lakeview Village will encourage the use of bicycles as an alternative travel mode beyond the private automobile. Both long-term and short-term bicycle parking will be required to serve the needs of both residents and visitors to Lakeview Village.

Secure, readily accessible long-term bicycle parking should be available in all residential buildings, and, dependent on demand, allowances should be made for long-term parking in commercial buildings for employees as well. Short-term bicycle parking should be made readily available throughout the site within close proximity to building entrances, open spaces, cultural hubs, and retail locations.

Off-street and below ground parking facilities for bicycles will be provided as a component of the new development. City of Mississauga, in collaboration with the developers, to provide:

- Comfortable, continuous cycling facilities
- Improve year-round maintenance of cycling facilities
- Expand bicycle parking and end-of-trip facilities
- Promote cycling across the City and Region

7.4.4.3 Bike Repair Stations

Public bike repair stations will be located throughout the site to allow cyclists to perform repairs should the need arise and will provide items such as common tools and an air pump. These public bicycle repair stations would be best located adjacent to main bicycle parking areas. A bicycle repair shop/supplier of bicycles and accessories could be chosen as one of the retailers in Lakeview Village so that residents are not required to travel off-site for more involved repairs.

7.4.4.4 Bike Parking and Lockers

One more way for parking programs to support TDM is through the provision of bike lockers in and around parking facilities. This is also a means of securing LEED credits in support of parking program sustainability goals.

Bicycles chained haphazardly to railings, posts or lamp columns can be dangerous and inconvenient to pedestrians, particularly visually impaired people. Proper bicycle parking can reduce this risk, as well as removing unsightly clutter.

7.4.4.5 Bike Share Systems

In their 2016 GO Rail Station Access Plan, Metrolinx recommended the introduction of a bike share program to service the Long Branch and Port Credit GO Rail Stations. The Access Plan also suggests the Inspiration Lakeview planning area as a potential bike share location to work in conjunction with those located at nearby GO Rail Stations.

Recognizing the current deficit of bike share programs in the City of Mississauga, Metrolinx recommended that the City and Bike Share Toronto/Toronto Parking Authority investigate the potential expansion of Bike Share Toronto operations and infrastructure beyond city limits into the Long Branch, Lakeview Village, and Port Credit areas.

At the time of this report, the western most Bike Share Toronto station is located at Humber Bay Shores Park along the Waterfront Trail. If Bike Share Toronto service were to be extended to Lakeview Village in Mississauga, there is great potential to place additional Bike Share stations along the Waterfront Trail to provide a full linkage to existing service for bicyclists.

The City could also work with SustainMobility, a non-profit social enterprise, to expand their existing CycleLoan bike share program in Mississauga. CycleLoan uses a turnkey bicycle fleet program that seeks to encourage employees to use active, healthy, and sustainable transportation.

At present, Mississauga does not have a municipally-operated bike share system. Should the City seek to create a bike share program, Lakeview Village's high connectivity to the Waterfront Trail and future bicycle lanes along Lakeshore Road East to the north of the site make it an ideal launching location for such a program.

7.4.4.6 Shower and Change Facilities

Provisional upon operational feasibility, to encourage tenants / employees to cycle for their commute, employees should be provided with a place to shower, change and / or store clothes (commuters who cycle may often arrive wet, dirty or sweaty).

7.4.5 Transit

7.4.5.1 Transit Incentives

Given the location of the site is adjacent to transit options, the City of Mississauga to consider providing each residential dwelling unit with a pre-loaded PRESTO card (value to be determined) as an incentive to promote transit usage, which should be funded through the development charges collected from the applicant.

The developer shall consider advising all potential purchasers of the existing transit services within proximity of the development. This includes current and potential transit routes, bus stops and shelter locations. This shall be achieved through distribution of information/marketing material (MiWay route maps, future plan maps and providing MiWay website contact information) at the rental office.

7.4.5.2 Shuttle to/from GO Stations

Local public transit within the vicinity of the Lakeview Village site is currently operating at satisfactory service levels, however, additional service from Lakeview Village to Port Credit and Long Branch GO Stations would support and promote the use of local transit services for short and long-distance travel by residents, employees and visitors. A shuttle service loop operating between the development and nearby GO Stations would assist in discouraging car usage and ownership for Lakeview Village residents who would otherwise travel by car to access the Lakeshore West GO Rail service. A shuttle service loop to connect residents to Lakeshore Road East BRT stops would also be advantageous, providing a convenient connection to MiWay's transit system until transit demand within Lakeview Village is able to support a local MiWay bus route through the development.

The shuttle service would also increase awareness of the utility, practicality and viability of transit travel options for both commuting and recreational travel. The shuttle service would connect residents to the wider transit network to access a range of locations across the city and region and would reduce parking demand at the Port Credit and Long Branch GO Stations. In addition to providing direct travel to the Lakeshore West GO Rail route, the Lakeview Village shuttle servicing the Port Credit GO Station would also provide a convenient connection to the future Hurontario Main LRT service terminating at Port Credit.

7.4.5.3 Intermodal Parking and Transportation Facilities

These facilities are typically hubs for multiple forms of transportation including rail, bus, taxi and parking. By centralizing these services to one location, passengers are able to access their preferred means of transportation more easily. Passenger comfort and safety is also with the construction of an interior lobby and designated pick-up/drop-off areas out of the way of traffic.

In addition, businesses located near these facilities are more visible and accessible to customers. This facility will also help make downtown more pedestrian friendly and increase foot traffic to local businesses.

7.4.5.4 Transit Oriented Development Parking Facilities

The "new urban village" concepts designed around a transit stop offers a picture of the emerging preferred urban development land-use type of the near future. These “transit-oriented developments” are characterized by relatively dense development patterns, strong permanent transportation elements that will support a “live/work/learn/play” environment.

While some parking is generally provided it tends to be less in overall numbers, provided in structures and supported by multiple transport options.

7.4.5.5 Transit Visualization System

A Transit Visualization System shows buses moving in real-time live on the internet, making it easier for riders to use transit.

7.4.6 Sustainable Parking Strategies

7.4.6.1 Fleet Vehicles

Providing an office/campus a corporate fleet of vehicles is an additional way to encourage employees/students to use alternative modes of travel to work. These vehicles can be used during the day for business travel since trips across campus or off-campus could be difficult without access to a personal vehicle. These vehicles can also be used for person trips and emergency on occasion.

A similar vehicle rental strategy can be implemented within the Serson Innovation Corridor.

7.4.6.2 Solar Parking Concept

Offering a dual solution to parking and charging of electric vehicles as well, the design proposes the wireless transmission of charge from the solar canopy to the charging coil embedded in the asphalt and later, to the car battery. After sensing an electric car parked, the parking system automatically starts the wireless charging process. Once the car’s battery is full, the sensors embedded in the asphalt stop the charging process.

7.4.6.3 Solar Forest Concept

The Solar Forest Concept consists of trees that are made up of photovoltaic leaves, whose sole purpose is to collect solar power. At the “trunk” of each tree is a power outlet that is used to charge up electric vehicles. Apart from providing charge, the photovoltaic “leaves” also gives shade to the cars.

7.4.6.4 Energy Efficient Vehicle – Parking Perks

Some municipalities are offering free metered parking to residents whose vehicles get 50 miles per gallon, have low emissions or are powered by an alternative fuel.

Salt Lake City joins New Haven, CT; Fresno, CA, Boulder & Manitou Springs, CO and Albuquerque, NM, in the free parking meter program. In the last year, Austin, Texas, also approved a green vehicle incentive that provides $100 in free parking. Commuters in Baltimore who use low-emissions vehicles can also buy parking passes at city-owned garages at a discounted rate.

7.4.7 Employer or City Actions

7.4.7.1 Single Occupant Vehicle (SOV) Parking Fees

Free parking is an incentive for driving alone. In order to penalize SOV's in some form, charging high parking rates will have an impact on the frequency of SOV's. Higher parking cost will increase the use of non-SOV's but motorist need alternative transportation options as well.

7.4.7.2 Preferential Parking for Rideshare/Carpool/Vanpool

Preferential parking means parking spaces designated or assigned for carpool and vanpool vehicles carrying commute passengers/students on a regular basis. These parking spaces are located in more convenient locations than parking spaces provided for single occupant vehicles.

7.4.7.3 Pay for Parking

Permits govern parking privileges by user, location, time and price incentives. The implementation of parking permits can help to better regulate parking demands. Parking permits also help to create a structured environment for regular motorist.

7.4.7.4 Increase Parking Permit Prices

Increasing the price of parking permits is a method to encourage alternatives to driving. An initial push to increase all prices would reduce the number of single occupant vehicle commutes to campus but providing a supply and demand based system that increases the prices of the most desirable parking permits would also help to reduce driving.

7.4.7.5 Parking Permit Buyback

The parking permit buyback program is set up to get employees and/or students to find alternative routes to commute. Current permit holders can trade in their parking passes for cash to bike, walk or rideshare to Lakeview Village.

7.4.7.6 Guaranteed Ride Home

Guaranteed Ride Home (GRH) programs provide a ride home for persons who use alternate modes of travel. This program serves as a backup plan for those who do not have a personal vehicle at work in the event they need to return home expectantly. These programs are typically subsidized or sustained through vouchers and reimbursement.

For example, as an employee at a participating Smart Commute workplace, you are eligible for Emergency Ride Home (ERH) reimbursement. If you have an unforeseen emergency on any day you use a sustainable method to commute to work, you can request reimbursement of up to $75 for your emergency transportation costs.

7.4.7.7 Variable Market Rate for On-Street Parking

Setting variable parking rates that fluctuate with demand.

- Helps optimize parking availability
- Frees up spaces for short-term users
- Eliminate search traffic
- Adjusted parking rates based on demand and location.
- Increases price in high demand locations

7.4.7.8 Parking Taxes and Fees

Parking taxes and fees can affect travel behavior by decreasing the amount of available parking, increasing the cost of parking, or encouraging employers and developers to pass the cost of parking onto drivers.

- One time tax – One time tax paid by students for parking.
- Stall tax – Annual tax per parking stall/space for students with vehicles.
- Percentage of cost – Tax charge based on the cost to park.

Parking taxes designed to target specific types of parking behavior;

- Peak-hour
- Commuter

Discounts to reward off-peak parking behaviour;

- Early bird arrivals
- Night owl departures

7.4.7.9 Public Transit Program

Provides local public transportation the chance to partner with University students, downtown employees, city staff, etc. in providing low-cost annual passes. In some cases, these programs are paid for with parking revenues. Implementation:

- Bought at discounted rate in bulk, then sold individually.
- Built in cost included in tuition providing access to the whole student body.
- Can be provided to all Serson Corridor employees

7.4.7.10 Safewalk Program

Safewalk program help to address safety issues. Safewalk programs help to facilitate safe travels for students or downtown employees who do not feel comfortable walking alone late at night, between buildings, in dark places and to and from vehicles.

7.4.7.11 Worksite Services

Worksite services reduce the need for driving single occupant vehicles. Increasing restaurant and shopping options, medical treatment and on-site childcare are all options to reduce SOV trips.

7.4.8 Financial Incentives or Disincentives

7.4.8.1 Parking Cash Out Program

A program-based strategy which allows the Lakeview Village businesses to charge commuters for parking while giving employees a bonus or pay increase to offset the cost of parking. Employees may use this increase to pay for parking or may choose an alternative mode and “pocket” the difference. Benefits include:

- Gives commuters a new choice
- Rewards the alternatives to solo driving
- Reduces vehicle trips
- Costs employers very little

7.4.8.2 Transportation Allowances

These allowances are given to employees or students who chose to use alternate forms of transportation to get to work. Theses commuters are allowed to use the allowances at their own discretions or offset the cost of commuting.

7.4.8.3 In-Kind Incentives

In-kind Incentives can be provided instead of cash. Free or discounted products can be provided to those who choose to use alternative methods of travel in the place of cash gifts. Examples include:

- Gas cards
- Transit pass
- Oil Changes
- Other vehicle services

7.4.8.4 Business Travel Reimbursement

This program reimburses miles traveled for business trips for transportation modes other than vehicle miles. For any business trip needed, trips can also be reimbursed if alternate modes of travel are used. These modes need to be comparable in travel time and trip duration. Alternate forms of travel eligible for reimbursement include:

- Bicycle
- Bus
- Transit

7.4.9 Alternative Work Arrangements

7.4.9.1 Flextime/Flexible Schedule

When provided, flextime allows workers to adjust their commuting time away from peak periods. This provides the workers with a less stressful commute, allows flexibility for family activities and lowers the number of vehicles using the transportation system during peak times.

7.4.9.2 Compressed Work Week

Enabling employees to compress regularly scheduled hours into fewer days per week. Employees given opportunity to attend the workplace four (4) days a week or some other schedule arrangement.

Reduces commute travel however potential cons include reduction in productivity, and reduction in total hours worked.

7.4.9.3 Telecommuting

Allowing employees to work from home or a non-office location one or more days a week. Telecommuting can also allow students to take courses and access materials from home or any location off the main campus. Telecommuting reduces traffic congestion and parking costs.

8 RECOMMENDED PARKING RATES

Taking into consideration the various rates presented in this report, and based on various TDM measures that will be implemented as a part of the Lakeview Village development, the following parking rates are recommended to drive an increase in non-single occupancy vehicle (SOV) travel.

8.1 Residential Parking Requirements

The recommended parking rates for residential uses within Lakeview Village are provided in **Table 8-1.**

Table 8-1 Recommended Lakeview Village Residential Parking Rates

Type of Use	Minimum Off-Street Parking Regulations
Condominium Apartment	1.00 resident spaces / unit 0.15 visitor spaces / unit
Rental Apartment	1.00 resident spaces / unit 0.15 visitor spaces / unit
Condominium Horizontal Multiple Dwelling	1.40 resident spaces / unit 0.15 visitor spaces / unit
Rental Horizontal Multiple Dwelling	1.40 resident spaces / unit 0.15 visitor spaces / unit
Condominium Townhouse Dwelling	1.40 resident spaces / unit 0.15 visitor spaces / unit
Street Townhouse Dwelling	1.40 resident spaces / unit 0.15 visitor spaces / unit
Retirement Building	0.40 spaces / unit
Long-Term Care Building	0.33 spaces / bed

As per the City Centre and Port Credit and Lakeview parking strategy reports, it is recommended that a parking rate of 1.0 spaces per residential unit be adopted for apartment buildings along with a residential visitor parking rate of 0.15 spaces / unit. The reduction of the existing by-law required parking rates for apartments, provided in **Table 2-1**, will allow compact urban development to occur within Lakeview Village with a focus on transit and active transportation options.

Although the Lakeview Village development is not within walking distance of a major transit hub similar to the City Centre or the GO Station in Port Credit, multiple transit and active transportation connections to Lakeshore Road East and the future Lakeshore BRT route will be provided to Lakeview Village residents and employees. The Lakeshore BRT route will provide access to Port Credit GO, the Hurontario LRT route, and the Long Branch GO Station that also has connections to the TTC streetcar and bus network.

The following argument for reduced residential parking rates in the Port Credit area, as stated in the Port Credit and Lakeview parking strategy report, can also be applied to Lakeview Village due to its high connectivity to the surrounding transit and active transportation network:

> *Reducing the parking supply requirement would recognize the potential for higher transit, walk and active transportation use in the area. It would recognize the trend to a more urban lifestyle and provide developers with more flexibility in meeting market demand for parking. It would also increase*

housing affordability by minimizing the cost of expensive underground parking for residents who do not actually want or need it.

For all other residential dwellings in Lakeview Village that do not fall under the description of an apartment, such as townhouses or horizontal multiple dwellings, it is recommended that a parking rate of 1.4 resident spaces / unit and 0.15 residential visitor spaces / unit be adopted.

It is important to note that the non-apartment residential dwellings in Lakeview Village will not be freehold dwellings and will be managed as condominiums. As such, the reduced rate of 1.4 resident spaces / unit acknowledges that exclusive driveway and garage parking spaces may not be provided for some of the proposed stacked and back-to-back townhouse developments in favour of shared/assigned underground parking, as is typical for condominium-style housing.

To further support the recommended reduced residential parking rates, the City should consider the implementation of reserved parking spaces for private car share programs located within the underground residential parking of apartments and townhouse condominiums. Car share programs reduce the need of residents to own (and park) a car, as they will have affordable and convenient access to a car as required for personal or business trips of a relatively short duration. Car share programs are a recognized transportation demand management tactic.

8.2 Non-Residential Parking Requirements

The recommended parking rates for non-residential uses within Lakeview Village are provided in **Table 8-2.**

Table 8-2 Recommended Lakeview Village Non-Residential Parking Rates

Type of Use	Minimum Off-Street Parking Regulations
Office	3.0 spaces / 100 m^2 GFA – non-residential
Medical Office	4.85 spaces / 100 m^2 GFA – non-residential
Medical Office - Restricted	6.5 spaces / 100 m^2 GFA – non-residential
Retail Store	3.0 spaces / 100 m^2 GFA – non-residential
Personal Service Establishment	3.0 spaces / 100 m^2 GFA – non-residential
Repair Establishment	5.4 spaces / 100 m^2 GFA – non-residential
Take-out Restaurant	6.0 spaces / 100 m^2 GFA – non-residential
Restaurant	7.65 spaces / 100 m^2 GFA – non-residential
Craft Brewery	1.60 spaces / 100 m^2 GFA – non-residential
Overnight accommodation (Hotel)	0.8 spaces per guest room; plus 10.0 spaces / 100 m^2 GFA – non-residential used for public use areas including meeting rooms, conference rooms, recreational facilities, dining and lounge areas and other commercial facilities, but excluding bedrooms, kitchens, laundry rooms, washrooms, lobbies, hallways, elevators, stairways, and recreational facilities directly related to the function of the overnight accommodation
Art Gallery / Museum	3.0 spaces / 100 m^2 GFA – non-residential
Day Care	2.5 spaces / 100 m^2 GFA – non-residential
Public School (up to and including Grade 8)	1.0 spaces / 100 m^2 GFA – non-residential (excluding portables); plus 1.0 spaces / portable classroom
Public School (up to and including Grade 8)	1.0 spaces / 100 m^2 GFA – non-residential (excluding portables); plus 1.0 spaces / portable classroom
Post-Secondary	1.1 spaces / 100 m^2 GFA – non-residential used for academic purposes 0.15 spaces / resident student and/or staff
Commercial School	5.0 spaces / 100 m^2 GFA – non-residential
Science and Technology Facility	3.2 spaces / 100 m^2 GFA – non-residential
Financial Institution	4.85 spaces / 100 m^2 GFA – non-residential
Utility Building	1.0 spaces / staff on duty with a minimum of 2.0 spaces
Waste Transfer Station	1.1 spaces / 100 m^2 GFA – non-residential up to 6,975 m^2 GFA; and 0.6 spaces / 100 m^2 GFA – non-residential over 6,975 m^2 GFA
Composting Facility	1.6 spaces / 100 m^2 GFA – non-residential up to 2,325 m^2 GFA; and 1.1 spaces / 100 m^2 GFA – non-residential between 2,325 m^2 and 9,300 m^2 GFA; and 0.6 spaces / 100 m^2 GFA – non-residential over 9,300 m^2 GFA
Transportation Facility	5.4 spaces / 100 m^2 GFA – non-residential

Further to the non-residential rates provided in **Table 5-2**, assorted uses that are located wholly within a post-secondary structure are recommended to have a parking rate of 1.0 spaces / 100 m^2 of GFA, recognizing that those uses within the post-secondary building are subject to a captive market and will not draw a large number of external patrons. Such uses internal to a post-secondary building could include an office, retail store, personal service establishment, take-out restaurant, restaurant, financial institution, or commercial school.

The reduced parking rates for retail, personal service establishment, art gallery, museum, financial institution, real estate office, medical office, and office uses listed in **Table 8-2** are based on recommended reduced rates from the Port Credit and Lakeview parking strategy report. These rates drew upon existing observed parking demand in the commercial areas of Port Credit that could be categorized as part of a 'main street' area. The planned densities and layout of Lakeview Village will also create a 'main street' area to which the adjusted non-residential rates would be directly applicable.

The recommended parking rate for restaurant uses within a C4 zone is a minimum 7.65 parking spaces per 100 m^2 of GFA consistent with previously approved site-specific parking rates within the City.

Parking rates that were not discussed previously in this report and are listed in **Table 8-2** will continue to make use of the parking requirements listed in the existing by-law. Of note, the 'transportation facility' use listed in the table would be a small on-site administrative and maintenance area for Lakeview Village car share vehicles to be maintained and repaired as needed.

8.3 Mixed-Use Shared Parking Formula

The mixed-use shared parking formula in the existing by-law recognizes the relationship between the parking demand of a given land use and the time of day the land use peaks. For example, an office building will experience its peak parking demand during the day while employees are at work, but a restaurant sees its highest peak in the evening at supper time.

When multiple uses are located within close proximity to each other, the mixed-use shared parking formula allows for reductions in the overall parking supply of a mixed-use development based on the time of day that sees the highest combined peak of parking demand.

Informed by the existing by-law and the recommended adjustments in the City Centre and the Port Credit and Lakeview parking strategy reports, the recommended mixed-use development shared parking formulas for the Lakeview Village development are provided in **Table 8-3**.

Table 8-3 Recommended Lakeview Village Mixed-Use Shared Parking Formulas

Type of Use	Percentage of Peak Period			
	Morning	Noon	Afternoon	Evening
Office / Medical Office	100 (10)	90 (10)	95 (10)	10 (10)
Real Estate Office	90 (50)	80 (50)	100 (50)	50 (20)
Financial Institution	70 (90)	75 (90)	100 (90)	80 (20)
Retail Store / Personal Service / Art Galleries / Museums / Repair Establishments	50 (50)	50 (75)	70 (100)	75 (10)
Restaurant / Take-out Restaurant	25 (20)	65 (90)	25 (50)	100 (100)
Hotel – Rooms Hotel – Function Space	50 (70) 95 (95)	25 (25) 100 (95)	25 (25) 90 (90)	65 (50) 95 (95)
Residential – Resident Residential - Visitor	90 (90) 20 (20)	65 (65) 20 (20)	90 (90) 50 (60)	100 (100) 100 (100)

XX – Weekday, (XX) – Weekend

The above mixed-use shared parking schedule has been adjusted compared to the schedule in the existing by-law, as the existing shared parking formulas listed in the by-law were developed to apply to developments throughout the city (urban or sub-urban) and are inherently designed to be conservative. As stated in the City Centre report, the current by-law only allows shared parking calculations to be performed for uses on the same lot, however:

> *In traditional downtown urban areas, parking is often shared amongst various uses on different lots, either formally or informally, even those lots with different ownership. This often occurs because most parking facility owners / operators charge a fee for parking and, therefore, are eager to generate business in off peak periods. For example, many office buildings in downtown Toronto keep their garages open for evening and weekend use by theatre and sports venue patrons as well as restaurant and retail customers. Allowing shared parking between separate lots and owners should be permitted in the City Centre in order to facilitate reduced parking supply and enable garage owners to realize additional revenue generation opportunities.*
>
> *Generally speaking shared parking should be permitted between lots located within 300 to 400 metres (984 to 1,312 feet) of each other and subject to registering an agreement on the title of both properties. The 300 metre distance should apply to retail, personal service, hotel and restaurant uses, while the 400 metre distance should apply to office and institutional uses.*

The above comment from the City Centre parking strategy report is especially applicable to the mixed-use buildings and the parking structure that will make up or be in close proximity to the Lakeview Square adjacent to the waterfront. The Lakeview Square is envisioned to be a hub of local and tourist activity; filled with retail shops, restaurants, cultural uses, and the epicenter of special events in Lakeview Village.

Lakeview Square is also envisioned to be a pedestrian priority area, and as such, it is expected that visitors to Lakeview Square would make use of a single parking spaces and not move their car between individual locations, but to walk between uses. This parking behavior is line with that of a traditional main street environment where many different and complimentary uses are located within walking distance of each other.

8.4 Bicycle Parking

Based on the recommended bicycle parking rates and associated shower/change facilities guidelines in the Port Credit and Lakeview report and the City Centre report, the recommended rates and shower/change facilities requirements are summarized in **Tables 8-4** and **8-5**.

Table 8-4 Recommended Lakeview Village Bicycle Parking Requirements

Land Use	Bicycle Parking Standard
Office Uses	0.17 spaces / 100 m^2 GFA – staff plus 0.03 spaces / 100 m^2 GFA – visitor
Retail Uses	0.085 spaces / 100 m^2 GFA – staff plus 0.25 spaces / 100 m^2 GFA – visitor
All Other Non-Residential Uses	4% for staff and 4% for visitors
Residential Apartments and Townhomes[1]	0.60 resident spaces / unit 0.15 visitor spaces / unit

1. *Residential requirement applies to apartments and townhouses that do not have an exclusive garage.*

Table 8-5 Recommended Lakeview Village Minimum Required Shower/Change Facilities per Gender

Required Number of Employee Bicycle Parking Spaces	Number of Shower Stalls per Gender
0 – 4	0
5 – 29	1
30 – 59	2
60 – 89	3
90 – 119	4
120 – 149	5
150 – 179	6
Over 179	7 plus 1 for each additional 30 bicycle parking spaces

Note: Each gender will also require a change and washroom facility, including storage lockers equal to 0.70 times the number of employee parking spaces provided.

As stated previously in **Section 3.5** of this report, the provision of bicycle infrastructure at the origin and destination of a bicycle trip, particularly parking and shower/change facilities, will encourage the use of bicycles for more than recreational purposes. Bicycling has the potential to be seen as an attractive alternative to automotive travel for relatively short trips. The City of Mississauga's 2018 Cycling Master Plan identifies short auto trips of five kilometres or less as having the potential to be converted to cycling trips.

Both the Port Credit and Long Branch GO stations are less than five kilometres away from the Lakeview Village site. Safe and convenient bicycle lanes and paths will be constructed as a part of Lakeview Village that will connect with the upgraded bicycling facilities that will be constructed along Lakeshore Road East as a part of the Lakeshore Connecting Communities Study outcomes. Such a continuous, dedicated bicycle route will increase the attractiveness of cycling in the Lakeview area and will decrease the need to own an automobile to travel to these transit hubs or other locations along Lakeshore Road East.

The *2018 Mississauga Cycling Master Plan* highlights the importance of providing parking at the origin and destination of a cycling trip along with the need to take into considerations the type of parking required:

> *People who choose to ride bicycles must be confident that there will be safe and secure places to park at their destinations. They may need to park their bicycles for a couple of hours, a full workday, or even overnight. Different kinds of bicycle parking are needed to meet these different needs.*

The 2018 Cycling Master Plan also identifies the need to include bicycle parking requirements in the City's Zoning By-law to support the development of the Mississauga cycling network as a whole. Bicycle parking standards to be added to the Zoning By-law have been developed through the City's *Transportation Demand Management Strategy and Implementation Plan*, and will provide standard rates for long-term and short-term bicycle parking that will be required for new residential and commercial developments. These new requirements will also consider whether a new development would be required to provide shower/change facilities for cyclists. Adding such measures to the Zoning By-law will aid in making cycling and attractive transportation mode.

8.5 Bike Share

Bike share programs provide residents and employees of a city or downtown area access to bicycles without the responsibility of owning, maintaining, and storing a bicycle themselves. Often, a bike share program will provide several stations or parking areas throughout a city where cyclists can pick up and pay a small fee to

use a bicycle for short trips around the city. These trips can be one-way in nature, or a round trip – similar to a taxi service.

Bike share programs have been implemented in other GTHA cities, such as Toronto and Hamilton. An important consideration for the success of any bike share program is to implement the program in an area that has dedicated bicycle infrastructure in place and has a dense population of workers and residents to make use of the program.

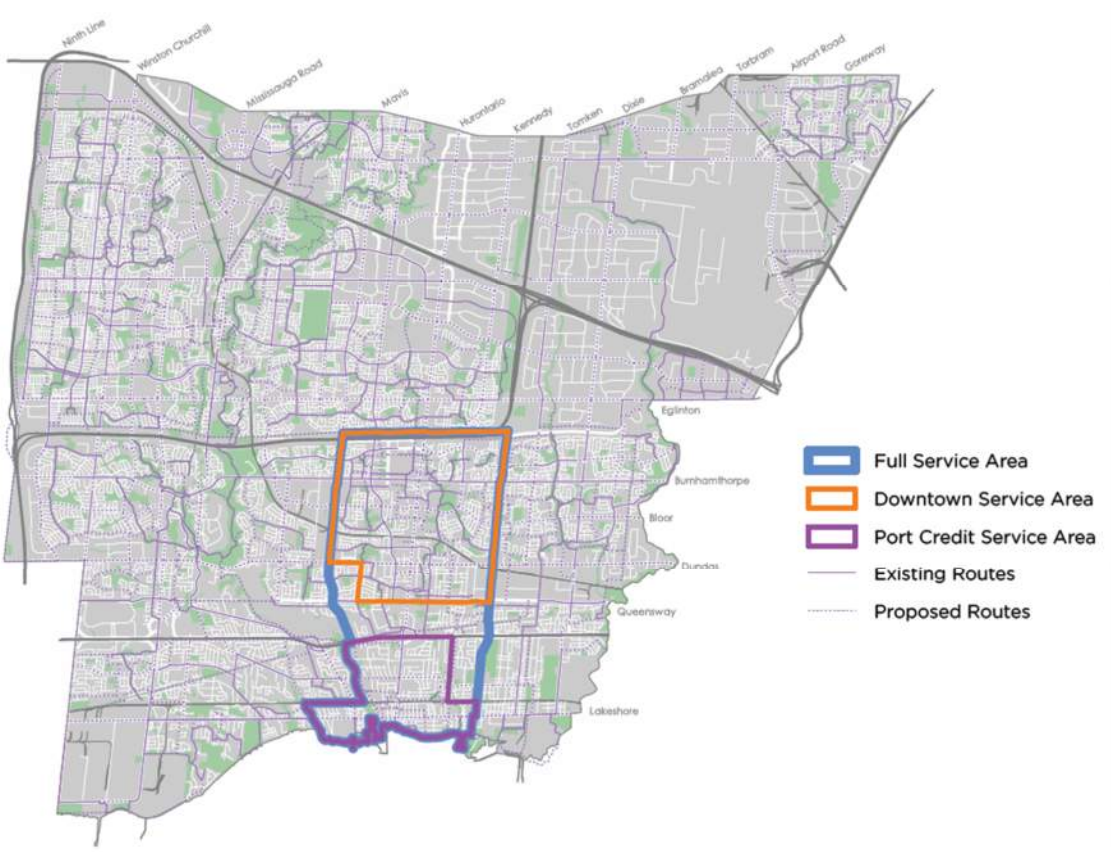
As stated in the *2018 Mississauga Cycling Master Plan*, a bike share program also has the potential to help address the "first and last mile" challenges that can be associated with transit use:

> *In suburban cities like Mississauga, access to transit is a key priority to make public transit more accessible and encourage its use. Bike share can help address these "first and last mile" challenges of public transit by providing access between public transit at the origin and/or destination of transit trips and add value to transit investments.*

The 2018 Cycling Master Plan also acknowledged that the cycling network within Mississauga is still developing. An implementation strategy for bike share should take into account the ongoing upgrades and planned expansion of the bicycle network to ensure key corridors in Mississauga have dedicated cycling infrastructure in place to increase the potential success of a Bike share program.

Figure 8-1 is a copy of Figure 27 of the 2018 Cycling Master Plan and outlines an area of Mississauga that includes approximately 150,000 residents and several key destinations for business, work, and entertainment. The outlined areas also indicate areas, such as Downtown Mississauga and Port Credit that are serviced well by transit.

Figure 8-1 2018 Cycling Master Plan proposed Bike Share Service Area



It is recommended that the Port Credit Service Area shown in **Figure 8-1** be extended eastward to include the Lakeview Village area due to the planned high-density residential and commercial areas within the development. The provision of a bike share program in conjunction with the dedicated bicycle lanes that are planned for Lakeshore Road East will allow for a convenient and low-cost option for residents or employees traveling to and from the regional transit options provided in Port Credit.

A bike share program with stations along the waterfront trail would also be an attractive active transportation option for residents and visitors alike to explore Mississauga's waterfront amenities.

8.6 Lakeview Square Public Parking Structure

Integrated Access Management is a term that refers to a more holistic approach to community or institutional planning relative to parking and transportation:

- Within the parking arena, this concept strives to promote a broader view of program scope and participation.
- It fights the tendency to place parking in a "silo", divorced from the larger transportation equation.
- The primary intent of this approach is to get communities to focus on "access" incorporating the full range of parking, transportation and demand management strategies to improve not only access, but to also enhance and promote walkable urban environments.

A perfect example of Integrated Access Management within Lakeview Village is Lakeview Square. The Square will be a vibrant central gathering place and public plaza with four-season programming that will serve as the retail, arts and cultural hub for Lakeview Village.

Drawing from the community and beyond, the Square will function as a flexible urban open space that can be programmed to accommodate a variety of events and celebrations. Public markets, art fairs and festivals will occur, all supported by the curated retail, restaurant and services integrated into the ground floor of adjacent mixed-use buildings. Decorative paving within the Square will extend across the adjacent street to provide a sense of entry, reinforce the pedestrian priority for the combined space and serve a traffic calming element.

The Square will be seamlessly linked with the Waterway Common to the west and the Waterfront to the south to provide a continuous public open space system that delivers a variety of experiences, activities, programming opportunities and settings that will define the character of Lakeview Village.

The Lakeview Village draft plan dedicates land adjacent to the waterfront Lakeview Square commercial and cultural hub to be developed as a public parking structure to help accommodate the parking demand of various surrounding uses.

As stated in **Section 3.6** of this report, a range of 25% to 60% of the total commercial parking supply in a downtown area or node may be public parking supplied by a municipality. The City of Mississauga is currently responsible for providing approximately 40% of the commercial parking supply as public parking in Port Credit.

The envisioned density and mix of residential and commercial uses in Lakeview Village will be similar to that found in Port Credit, and as such, it has been assumed that approximately 40% of the required commercial parking supply in Lakeview Village should be public parking managed by the City.

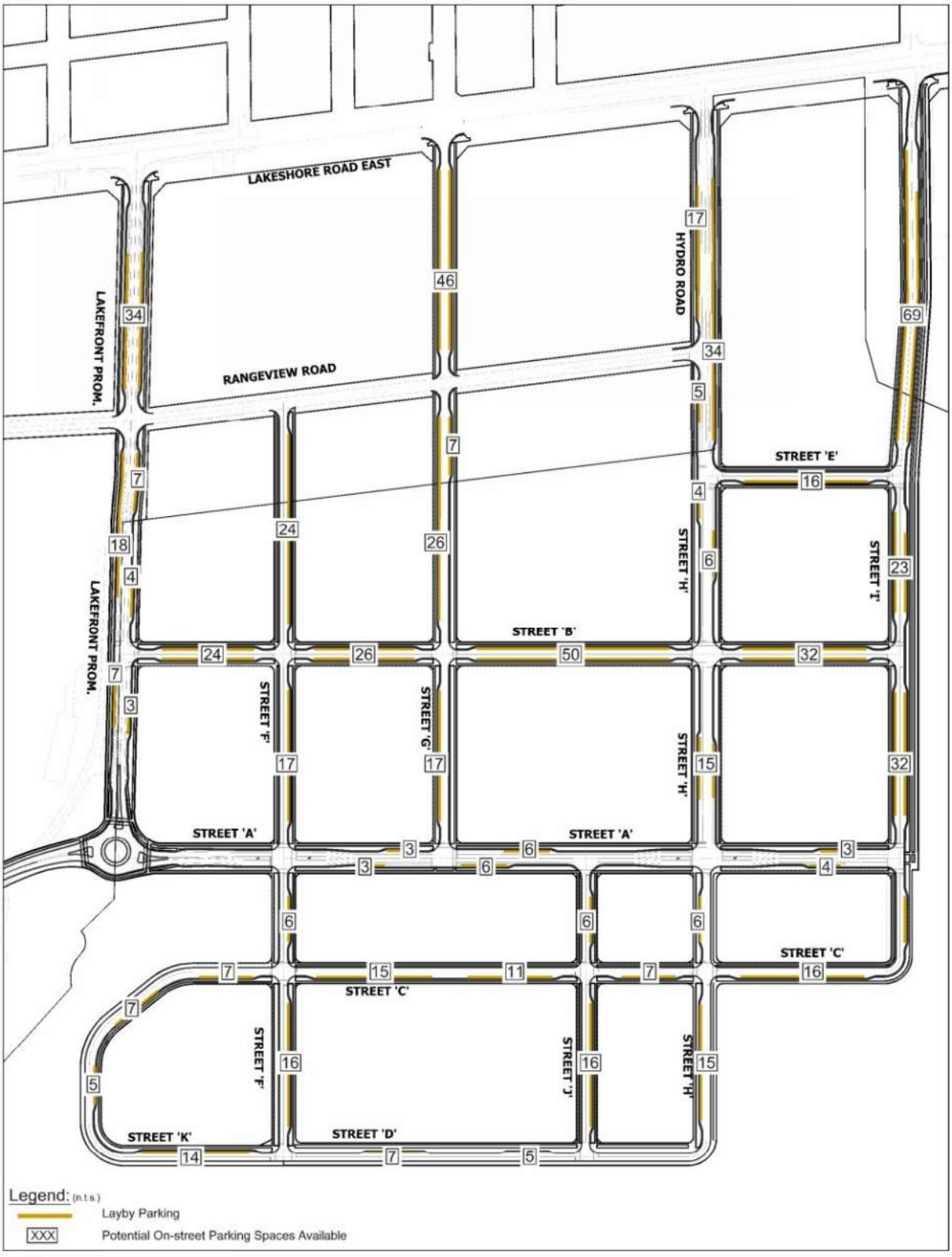
Based upon the parking rates detailed in the Zoning By-law amendment for Lakeview Village, and dependent upon approval, approximately 1,200 commercial parking spaces would be required for non-residential uses located within Lakeview Square. This number of parking spaces is also subject to further refinement of the non-residential land uses that will be developed as a part of Lakeview Square and the demand of the lakefront park uses.

If 40% of the currently required 1,200 commercial spaces were to be provided by the City as a part of the parking structure adjacent to Lakeview Square, 480 public parking spaces would need to be supplied. The number of commercial public parking spaces that would be located in the parking structure could be reduced if on-street public parking were considered.

The latest draft plan provides a total of 753 on-street parking spaces throughout the entire Lakeview Village development, including parking on north-south roads crossing the Rangeview Estates development that connect to Lakeshore Road East. On-street parking spaces were calculated based on the City's requirement that parallel parking spaces be 6.7m long.

Figure 8-2 contains a copy of the Lakeview Village draft plan road network that highlights the potential location of on-street parallel parking spaces. 190 on-street parking spaces have been allocated along Street 'A' and south of Street 'A'. South of Street 'B', there is a total of 281 parking spaces. Including parking on Street 'B' and to the south, there is a total of 413 on-street parking spaces. Based on the current draft plan, a range of 190 to 413 parking on-street parking spaces could be considered within reasonable walking distance of the lakefront park lands and the Lakeview Square commercial uses. The final supply of on-street parking will be dependent on the final draft plan and roadway right-of-way design.

Figure 8-2 Potential On-Street Parking Locations



The amount of public parking that needs to be supplied in the Lakeview Square parking structure is still preliminary, and calculations of required parking spaces will continue to be refined as the surrounding land uses undergo further refinement. There are other considerations under review that will help ensure the parking structure is not over-designed, but will still adequately supply parking for visitors to Lakeview Village.

Lakeview Square and the waterfront component of Lakeview Village are being designed as cultural and social hubs and will likely become the location of many festivals and special events. Such events often put a strain on the surrounding parking supply. The parking structure could be built to have the extra parking space required to host such events in the Lakeview community, but this could lead to the structure being over-built for the typical parking demand.

To address the potential stress on the Lakeview Square parking supply during large special events, plans could be developed and put in place to provide shuttle service to and from off-site parking lots in the surrounding community. Special events would often be limited to evenings and weekends when some parking uses, such as offices, will be off-peak. These sorts of parking lots, and even the nearby GO station parking lots, would be ideal satellite parking lots with shuttle service during a special event.

Another method to ensure the parking structure isn't over-built is to monitor parking demand as construction occurs. In general, construction of Lakeview Village will begin at the waterfront and move northward towards Lakeshore Road East. Transit service through the Lakeview site will also be phased in as construction progresses and occupancy increases.

Parking surveys and observations of transit usage to and from the site will provide key data to inform the estimated parking needs of the community, and in turn, how large to build the parking structure. In order to provide the public parking that will be needed while parking surveys and observations are underway, interim surface parking lots could be built on yet undeveloped blocks within the Lakeview community.

9 CONCLUSIONS

Transportation Demand Management

The design of Lakeview Village provides ample infrastructure for active transportation options such as walking and cycling not only within the site, but also provides connections to the broader Lakeshore community. Such opportunities will assist in decreasing reliance upon automobile travel to reach destinations within and nearby Lakeview Village.

Higher-order transit options within the vicinity of the site, such as the proposed Lakeshore Road BRT route, will provide further connectivity from Lakeview to the GTHA at large by providing connections to GO Transit's future Regional Express Rail service at Port Credit and Long Branch GO stations.

While it will not be possible to avoid future increases in vehicular ownership and congestion, key mitigation strategies will mitigate the impacts to the transportation network, including Transportation Demand Management (TDM) Measures such as:

- Capping the supply of residential and employee parking spaces;
- Transit incentive programs (e.g. transit fare card provided by developer to residents; buildings include real-time transit schedule information display);
- Creation of compact, walkable, mixed-use development centered around high-quality transit and active transportation;
- Enhanced pedestrian and cycling connections and facilities (including enhanced connections to, and improved facilities along Lakeshore Road);
- Programs (e.g. joining a local Smart Commute transportation management association, Car Share, etc.);
- The City will encourage Transportation Demand Management measures, where appropriate, in the Lakeshore Corridor and as a part of any significant redevelopment projects outside of the corridor.

Working with the City to incorporate TDM-related measures into a development to allow increases in density, reduction in parking requirements and incorporating bicycle parking into the parking regulations within the City's Zoning Bylaw, as well as the City's Parking Master Plan (anticipated in 2019) will allow Mississauga to make effective use of its existing powers.

Residential Parking

Residential parking will consist of at-grade private garages for ground-related townhouses. For all other building types, surface parking for visitors may be provided, but most resident and visitor parking will be provided below grade. Driveways and ramps to below-grade parking will be strategically located to provide accessibility from a minor street or rear lane with limited visual exposure from the public realm and to minimize impacts on the street system.

The recommended parking rates for residential uses within Lakeview Village are as follows:

- Minimum 1.0 resident parking spaces per apartment dwelling unit;
- Minimum 1.4 resident parking spaces per townhouse and horizontal multiple dwelling unit; and
- Minimum 0.15 visitor parking spaces per dwelling unit

Non-residential Parking

The reduced parking rates for non-residential uses such as retail, personal service establishment, and office are based on recommended reduced rates from the Port Credit and Lakeview parking strategy report. These rates draw upon existing observed parking demand in the commercial areas of Port Credit that could be categorized as part of a 'main street' area. The planned densities and layout of Lakeview Village will also create a 'main street' area to which the adjusted non-residential rates would be directly applicable.

As per the Port Credit & Lakeview Parking Strategy:

> *It is recommended that the City reduce parking supply requirements in the Zoning By-Law to reflect actual need and achieve broader urban design objectives. Generally, the goal should be to reduce existing rates where appropriate while also trying to consolidate as many uses as possible in order to make land use changes easier to accommodate.*

The recommended parking rates for non-residential uses within Lakeview Village are as follows:

- 3.0 spaces per hundred square metres GFA for retail, personal service, repair establishments, art galleries and museums;
- 4.85 spaces per hundred square metres GFA for financial institutions, real estate offices, medical offices and take-out restaurants; and
- 3.0 spaces per hundred square metres GFA for office uses.

Mixed-Use Shared Parking Formula

When multiple uses are located within close proximity to each other, or indeed within the same building structure, the mixed-use shared parking formula allows for reductions in the overall parking supply of a mixed-use development based on the time of day that sees the highest combined peak of parking demand.

The recommended mixed-use development shared parking formulas for the Lakeview Village development are consistent with those informed by the existing by-law and the recommended adjustments in the City Centre and the Port Credit and Lakeview parking strategy reports.

Bicycle Parking

The recommended bicycle parking rates and associated shower/change facilities are based on the guidelines in the Port Credit and Lakeview report and the City Centre report and are summarized below:

- Office use – 0.17 and 0.03 spaces / 100m^2 GFA for staff and visitor respectively;
- Retail use – 0.085 and 0.25 spaces / 100m^2 GFA for staff and visitor respectively;
- Residential – 0.60 and 0.15 spaces / unit for resident and visitor respectively;

On-street Parking

As per the Port Credit & Lakeview Parking Strategy:

> *The City should establish a policy framework which ensures that all new public streets built as part of the Lakeview Village vision are carefully assessed at the design stage in terms of optimizing the on-street parking supply. This policy direction should be incorporated into the criteria applied to the Environmental Assessment process for new streets in the area.*

In this regard, virtually all streets in the Lakeview Village draft plan will be able to provide parking on at least one side, totalling approximately 600 on-street parking spaces.

Public Parking Structure

Lakeview Square and the waterfront component of Lakeview Village are being designed as cultural and social hubs and will likely become the location of many festivals and special events. Such events often put a strain on the surrounding parking supply. If the planned parking structure supplies sufficient parking spaces required to accommodate the demands of such events in the Lakeview community, this could lead to the structure being over-built for more typical parking demands and promoting the very thing we are trying to discourage – SOV travel.

To address the potential stress on the Lakeview Square parking supply during large special events, plans should be developed to provide shuttle service to and from off-site parking lots in the surrounding community. Special events would often be limited to evenings and weekends when some parking uses, such as offices, will be off-peak. These sorts of parking lots, and even the nearby GO station parking lots, would be ideal satellite parking lots with shuttle service during a special event.

Parking surveys and observations of transit usage to and from the site will provide key data to inform the estimated parking needs of the community, and in turn, how large to build the parking structure. In order to provide the public parking that will be needed while parking surveys and observations are underway, interim surface parking lots could be built on yet undeveloped blocks within the Lakeview community. These 'interim' surface lots would be removed as development proceeds, with parking supplies being better defined as the development evolves.

10 REFERENCES

City of Mississauga (2019). *'Mississauga Transportation Master Plan – Draft for Public and Stakeholder Review'*

City of Mississauga (2018). *'Mississauga Cycling Master Plan'*

Metrolinx (2018). *'2041 Regional Transportation Plan for the Greater Toronto and Hamilton Area'*

City of Mississauga (2017). *'Mississauga Parking Master Plan and Implementation Strategy (PMPIS) – Existing Policy and Best Practices Review'*

City of Mississauga (2017). '*TDM Strategy and Implementation Plan'*

BA Group (2014). *'City of Mississauga Parking Strategy – Phase II Port Credit & Lakeview'*

BA Group (2009). *'Parking Strategy for Mississauga City Centre'*

City of Mississauga (2007). *'City of Mississauga Zoning By-law 0225-2007 – Part 3: Parking, Loading and Stacking Lane Regulations'*