### **CITY OF VAUGHAN**

### EXTRACT FROM COUNCIL MEETING MINUTES OF OCTOBER 20, 2021

Item 5, Report No. 43, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on October 20, 2021.

### 5. CITY OF VAUGHAN TRANSPORTATION DEMAND MANAGEMENT (TDM) GUIDELINE

The Committee of the Whole recommends approval of the recommendation contained in the report of the Deputy City Manager, Planning and Growth Management, dated October 5, 2021:

### **Recommendations**

1. That the City of Vaughan Transportation Demand Management (TDM) Guideline (2021) and Tool Kit, [Attachments 1 and 2] be received.



## **Committee of the Whole (1) Report**

### DATE: Tuesday, October 5, 2021

### WARD(S): ALL

### TITLE: CITY OF VAUGHAN TRANSPORTATION DEMAND MANAGEMENT (TDM) GUIDELINE

### FROM:

Haiqing Xu, Deputy City Manager, Planning and Growth Management

### **ACTION:** FOR INFORMATION

### Purpose

To provide an overview of the Transportation Demand Management (TDM) Guideline and inform Council of the proposed improvements to the development review process with respect to TDM, and emerging policy recommendations.

### **Report Highlights**

- The existing process of reviewing and requiring TDM through development applications lacks clarity and consistency for both developers and staff, and the City rarely monitors or tracks the implementation of TDM measures.
- A comprehensive review of background policies, best-practices, and precedents of numerous municipalities was undertaken to understand an approach to TDM that is tailored to the City of Vaughan.
- The TDM Guideline includes a Toolkit and Guideline document that will significantly improve the quality and consistency of TDM measures provided through development as well as a process for staff to track the implementation of TDM measures and monitor success over time for those developments that meet certain thresholds.
- The TDM Guideline process strives to minimize impacts to departmental workload while also respecting the interests of the development community.

### **Recommendation**

1. That the City of Vaughan Transportation Demand Management (TDM) Guideline (2021) and Tool Kit, [Attachments 1 and 2] be received.

### **Background**

The City of Vaughan Transportation Master Plan – A New Path (2012) recommended that the City develop a TDM Guideline recognizing the increasing importance of encouraging sustainable transportation options and managing transportation demand, namely single-occupancy vehicle demand, throughout the City, and particularly within the City's intensification areas. As the City has continued to grow and intensify since the completion of the 2012 Transportation Master Plan, the need for a TDM Guideline has also grown. The TDM Guideline is needed to support staff and better inform the development community that TDM must be critically considered to manage transportation demand as greatly as possible.

# The TDM Guideline is one component of the land use and transportation planning framework.

The TDM Guideline will apply to the development applications review process and build on the City's current process of requiring the provision of TDM measures. This may include a range of "hard" and "soft" measures such as bicycle parking, pedestrian facilities, carpool and carshare parking, subsidized transit passes, charged parking, and so on. This may also include improvements to the City's transportation network where appropriate and related to a subject development. The intent of the TDM Guideline is to work directly with the development community to provide these incentives and disincentives at the origin and destination points of any given trip. The City is currently engaged in numerous other transportation planning initiatives that will improve the availability of active transportation and transit within the City's and Region's networks which will connect these origin and destination points.

### **Previous Reports/Authority**

City of Vaughan Transportation Master Plan – A New Path (2012)

### Analysis and Options

# A review of the existing process of requiring TDM through the development process revealed a lack of consistency and clarity.

Currently the City requires that all development applications proposing 50 or more units or 2,000m<sup>2</sup> of GFA of office must include a TDM Plan in their submission which details a range of "hard" and "soft" measures that will be provided to residents and/or tenants. The City has encountered numerous applications which do not include a TDM Plan despite these thresholds being satisfied, resulting in multiple submissions and discussion between staff, the applicant, and the transportation consultant. In some instances, the concept or site plan would be in an advanced state and then must be

revised to accommodate these measures which could result in impacts to other aspects of the plan.

In addition to the triggers for providing a TDM Plan, there are also notable inconsistencies in the quality of TDM Plans that the City does receive through the development applications process. While some TDM Plans are of exceptional quality and address all concerns of staff, the majority of TDM Plans are unsatisfactory and require significant revision. In many cases, the TDM Plans are generic and not appropriately tailored to the specific site. Staff in these instances must discuss with the applicant and respective transportation consultant and are often found negotiating for TDM measures that should be incorporated without contest. The inconsistency in quality also requires a significant amount of staff time in reviewing and commenting on multiple rounds of submissions before an acceptable TDM Plan is provided.

The inconsistency in quality of TDM Plans, however, can be partially attributed to the lack of existing guidance or reference provided to applicants and their consultants in completing TDM Plans for development in Vaughan. Staff have detailed preferences and specifications for certain TDM measures which may not be known prior to a submission. Further, applicants must also navigate both the City's and York Region's TDM requirements and process, and there is sometimes confusion created as to which measures are required or coordinated by which municipality.

# The policy framework strongly supports incorporating TDM into development, but there are some gaps at the City level.

The current policy framework at all levels provides strong support for TDM and the incorporation of TDM within development. This includes policies and guidance at the Provincial level through the Provincial Policy Statement (2020) and A Place to Grow for the Greater Golden Horseshoe (2019), as well as policies and guidance at the York Region level through the York Region Official Plan (2010), Transportation Master Plan (2016 Update), and the York Region Mobility Plan Guidelines.

TDM is also strongly supported by the City through the Vaughan Official Plan and Transportation Master Plan, but there are some gaps in the existing policies with respect to TDM requirements and triggers. In particular, the Official Plan indicates that TDM Plans will be required for developments with 50 multi-family units or greater, and/or 2,000m<sup>2</sup> of GFA of office. These triggers exclude numerous other forms of development including retail, employment, hotels, and so on. Furthermore, less intensive TDM Plans could prove beneficial for developments below these thresholds depending on the context and specifics of the development.

### A comprehensive review of the practices of other municipalities throughout North America reveals a more context sensitive approach to TDM for Vaughan.

A review of best practices revealed that the City's current process for requiring and reviewing TDM measures through development applications is being replaced with the use of checklists and/or scorecards. Currently, the City requires that applicants and their consultants provide a list of the TDM measures they propose to provide through their application. Staff then review and comment on the measures they would like to see added and/or removed. In many instances there are multiple rounds of submission negotiating on TDM measures. The checklist or scorecard approach establishes the expectations upfront to applicants, provides some flexibility in selecting the measures which work best for the applicant, and also provides staff a point of reference in understanding which TDM measures are most appropriate depending on type of development, density, location, and etc. The checklists and/or scorecards can be tailored to specific character areas or development typologies where the list of required TDM measures would adapt based on these characteristics. Applicants would then be required to satisfy a minimum score determined by the checklist or scorecard, reducing the amount of negotiation, and ensuring that the appropriate TDM measures are provided for a respective application.

The review of best practices also reveals that there are approaches to monitoring and implementation that could work within the Ontario land use planning framework. Namely that TDM "hard" or physical measures continue to be required as conditions of approval, and that both the "hard" and "soft" or programmatic measures be subject to letter of credit. The use of the letter of credit would apply to developments that meet certain thresholds such as the number of units or amount of commercial GFA and would allow the City to require monitoring surveys and track the implementation and success of TDM. This is currently a critical missing piece to the City's approach to TDM.

# Requirements for TDM can be tailored to better reflect the varying landscape of the City and the range of development typologies that the City welcomes.

Understanding that the City presents a varying landscape of urban form ranging from rural and suburban development to high-density transit-oriented development, a onesize fits all approach is not considered optimal for requiring TDM. Understanding this difference, the TDM Guideline will introduce two levels of TDM requirements. Level 1 TDM Plans will be required to satisfy all requirements from the Comprehensive Zoning By-Law (2021) as well as the York Region requirements, as applicable. Level 2 TDM Plans in addition to the Level 1 requirements will be required to provide a more enhanced suite of TDM measures that better reflects the needs of urbanizing and urban areas in the City. This approach also ensures that the TDM requirements are coordinated with York Region and provides flexibility should the York Region requirements change in the future.

The TDM Guideline proposes to implement triggers for all development typologies that adjust depending on development type, location, and traffic impact. The TDM Guideline includes a series of character areas which are aligned with the four parking character areas established in the City's Comprehensive Zoning By-Law (2021). This will create consistency and coordination with the Comprehensive Zoning By-Law, as well as predictability in expectations from applicants and their transportation consultants. More onerous Level 2 TDM requirements would apply to those areas that are mixed-use in nature, or are intensification areas, while the Level 1 requirements would apply to those areas that are low-density and are not immersed within multi-modal transportation networks.

# A TDM Toolkit is recommended to establish clear and consistent TDM requirements for the significant majority of development applications.

The TDM Toolkit (Attachment 1) has been crafted as to require the appropriate TDM measures across the character areas of the City for the majority of development applications, recognizing that some sites will require unique and specially tailored approaches. The TDM Guideline will allow staff to determine at the pre-application stage if the TDM Toolkit should be followed or if the applicant should instead work directly with staff if there are special considerations.

Regardless, the TDM Toolkit is not intended to be implemented dogmatically, recognizing that there needs to be the opportunity for flexibility and discussion between the City and applicants. The TDM Toolkit is intended to establish the expectations of staff and provide guidance to applicants in proposing and implementing their suite of TDM measures. The TDM Guideline and Toolkit will be immersed in the City's policy framework and work together with the Comprehensive Zoning By-Law and forthcoming Official Plan update.

The TDM Toolkit will determine the level of TDM Plan required for a respective development based on the relevant triggers and context of the site. If a Level 1 or basic TDM Plan is required, the Toolkit will take the form of a simple checklist asking applicants to verify that they have satisfied the relevant Zoning By-Law and York Region requirements. If a Level 2 or enhanced TDM Plan is required, the Toolkit will generate a minimum required score based on the characteristics of the development that the applicant will be required to satisfy. Doing so will require applicants to satisfy the basic checklist and select from a suite of pre-selected TDM measures which are individually scored and will accumulate to a final total score.

The approach taken with the TDM Toolkit will ensure that the appropriate TDM measures are being required of the appropriate developments while reducing the amount of negotiation and multiple rounds of submission. The TDM Toolkit establishes clear requirements at the outset and will be supported by the TDM Guideline document (Attachment 2) which will function as a reference document walking applicants and consultants through the process. The TDM Guideline document will also include reference sheets for every TDM measure including guidance on how the measure should be shown or demonstrated at the planning stage, design or programming requirements, staff requirements, and how the measure should be implemented and monitored.

# An implementation process is needed to ensure that TDM measures are being provided and are effective.

Currently the City does not monitor the implementation of TDM measures, nor monitors their effectiveness over time. The TDM Guideline recommends an implementation and monitoring strategy which involves the use of letters of credit for sites that meet certain criteria (number of residential units and/or non-residential GFA). In these circumstances, a letter of credit will be held in the amount of the delivery of the TDM measures in addition to conducting two monitoring surveys. Staff will require a basic report which includes evidence that the TDM measures have and continue to be provided on-site (can be in the form of photographs) as well as the completion of a travel survey using a template that will be provided by staff to the owners. Staff will require that these follow-up reports be provided at full occupancy, and one to two years following full occupancy. The letter of credit will be released once satisfied.

The proposed monitoring and implement strategy follows the best-practices of other municipalities in the Greater Toronto Area. The City has also employed this strategy for a handful of sites in the past and staff are generally familiar with the approach. Efforts have been made to simplify the monitoring process as to not excessively burden owners or other internal City departments. The monitoring of TDM will largely be the responsibility of the Development Engineering Department and the City of Vaughan TDM Coordinator. The outlined approach works to provide staff an indication that TDM measures are being provided, as well as a resource to monitor if TDM measures are effective over time. Such data will allow staff to adjust TDM requirements and better arrange for TDM during the development approvals process. The outlined approach also addresses some limitations of the Ontario planning framework which presents limited opportunity to monitor and track TDM measures post-development.

# TDM practices and the recommendations of the TDM Guideline are supported by stakeholders and the development community.

Stakeholder consultation consisted of two meetings with internal City departments and relevant external agencies including York Region, York Region Transit, Toronto Transit Commission, and pointA (SmartCommute). Stakeholders all indicated support for the proposed TDM Guideline and approach. Staff will continue to work with York Region to ensure coordination with York Region TDM requirements through the development application process. The TDM Toolkit has been crafted to consider York Region requirements.

In addition to the relevant internal departments and external agencies, staff also held numerous meetings and interviews with prominent developers in the City. Developers that were interviewed targeted a mix of input from varying perspectives including both high- and low-rise development, and residential and commercial development. Interviews and meetings with developers aimed to understand opinions on TDM and how TDM can be better practiced in Vaughan while balancing the concerns and wishes of the development community. Developers indicated general support for TDM in Vaughan and for the City's proposed approach. Understandably, developers expressed that incentives should be provided in return for providing enhanced TDM measures through development, namely reducing parking requirements.

Resultantly, staff have incorporated calculations into the TDM Toolkit which determine a reasonable potential parking reduction in exchange for the provision of TDM measures. These calculated reductions are to provide a reference to both staff and developers as to the amount of parking they could expect to reduce in their applications through providing TDM measures. Staff will work with the developers to determine the appropriateness of such a parking reduction and the details of the proposed TDM measures to support the parking reduction. The parking reductions have been carefully considered based on the updated minimum parking rates of the Comprehensive Zoning By-Law and recent trends in development applications across the City. It is important to note that the parking reductions determined through the TDM Toolkit are for reference and meant to assist with determining an appropriate reduction. The justification of the parking reduction of the parking reduction still lies with the applicant and it will remain at the discretion of staff to support the parking reduction or to request additional TDM or justification.

### **Financial Impact**

There are no financial implications as part of this report. The implementation of the TDM Guideline and the review of development applications from the perspective of TDM will continue to be the responsibility of the City's TDM Coordinator.

### **Broader Regional Impacts/Considerations**

City staff have worked with York Region, York Region Transit (YRT), the Toronto Transit Commission (TTC) and pointA (SmartCommute) in developing the TDM Guideline. The City will be responsible for overseeing the application and implementation of the TDM Guideline with respect to the "hard" and "soft" TDM measures that will be the responsibility of the City. There are no notable changes proposed to the existing practices of York Region with respect to the review of TDM measures on City of Vaughan development applications. York Region will continue to be responsible for overseeing the delivery of TDM measures that are covered by the York Region TDM related Development Charges. The City will continue to assist York Region with the coordination of other TDM measures that may be of mutual interest. There are no impacts anticipated at a Regional level and the various external stakeholders have indicated their support for the TDM Guideline.

### **Conclusion**

The City of Vaughan TDM Guideline will be an important tool to assist developers and staff in requiring, reviewing and implementing TDM measures through development applications. The ultimate goal of the TDM Guideline is to improve the opportunities provided to residents and employees in the City to travel by modes of transportation that are alternate to driving alone. The TDM Guideline will work to establish clear and consistent requirements for developments that are appropriate to the individual context of each development application. Resultantly, development applications will be expected to provide suitable TDM initiatives that will encourage a reduction in single-occupancy vehicle usage as greatly as possible. The TDM Guideline has been coordinated with internal City departments and external agencies, as well as key members of the development the TDM Guideline and begin including its requirements as part of the development review process, similar to other technical guidelines.

**For more information,** please contact: Frank Suppa, Director, Development Engineering, x8255.

### **Attachments**

- 1. TDM Toolkit.
- 2. TDM Guideline.

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### Approved by

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Reviewed by

Nick Spensieri, City Manager

### City of Vaughan TDM Toolkit

INSTRUCTIONS: The Transportation Demand Management (TDM) Toolkit is to be used in conjunction with the City of Vaughan TDM Guideline. Please input your project's characteristics to determine if you should complete the Level 1 or Level 2 form. Please selective TDM Initiatives that apply to your development and you will automatically receive a score. The score must meet the minimum threshold and achieve all Level 1 requirements. Completing the Toolkit should take approximately 10 minutes. To determine if a York Region TDM Plan is required, please refer to the York Region Mobility Plan Guidelines (Chapter 3).

DISCLAIMER: Parking reductions provided through the Draft Comprehensive Zoning By-Law are not eligble for additional parking reductions through the TDM Toolkit (e.g. Carpool/Car Share/Shared Parking). The parking reductions listed below are for reference only and to be used in conjunction with a Parking Justification Report (as applicable and through consultation with Staff).

Zone: H	Zone: High-Rise Mixed Use York Region TDM Yes Plan Required?		Priority Area: High Proposed Number of Long Term 50 Bike Parking Spaces:				Land Use: Mixed Use
							kday AM Peak Trips Generated: <u>&gt; 50</u> Minimum Score Requirements: Level 2
Summary Table of TDI							
-	Less than 2		20 to 5	50 trips High Priority	> 50		
	Low Priority Area	High Priority Area	Area	Area	Low Priority Area	High Priority Area	
VMC Group 1 Group 2	Level	1			Level 2	-	
Other	-	Level 1	Level 1	Level 2	Lev	el 2	
1							
Note: all measures listed	DM INITIATIVES	eted and followed as per the	e OP or ZBL.				
Note: all measures listed		eted and followed as per the	e OP or ZBL.				
Note: all measures lister Category 1: Promotion # TDM Initiative		eted and followed as per the	e OP or ZBL.		Initiative Completed		
Note: all measures listed Category 1: Promotion # TDM Initiative 1.1 Provide Transit Incentives		eted and followed as per the	e OP or ZBL.		Initiative Completed		
Note: all measures listed           Category 1: Promotion           # TDM Initiative           1.1 Provide Transit Incentives           1.2 Communications Strategy		eted and followed as per the	e OP or ZBL.		Initiative Completed		
Note: all measures listed           Category 1: Promotion           # TDM Initiative           1.1 Provide Transit Incentives           1.2 Communications Strategy		eted and followed as per the	e OP or ZBL.				
Note: all measures lister           Category 1: Promotion           # TDM initiative           1.1 Provide Transit Incentives           1.2 Communications Strategy           Category 2: Active Transportation           # TDM initiative	d in this section must be compl	eted and followed as per the	e OP or ZBL.		Initiative Completed		
Note: all measures listed           Category 1: Promotion           TDM Initiative           1: Provide Transil Incentives           1: Communications Strategy           Category 2: Active Transportation           TDM Initiative           1: Decidentian Network Implemental	d in this section must be comple	eted and followed as per the	e OP or ZBL.				
Note: all measures listed           Category 1: Pronotion           TOM Initiative           1:         Provide Transit Incentives           2:         Communications Stategy           Category 2: Active Transportation         Tot Initiative           2:         Verosettrain Network Implementations           2:         Verosettrain Network Implementations	d in this section must be completed in this section must be completed in the completed in t	eted and followed as per the	e OP or ZBL.				
Category 1: Promotion  TDM Initiative 1.1 Provide Transit Incentives 1.2 Communications Strategy Category 2: Active Transportation	d in this section must be completed in this section must be completed in the completed in t	eted and followed as per the	9 OP or ZBL.				

#### SECTION 3 - LEVEL 2 TDM INITIATIVES

	Score Requir Level 2 Score		22	
Category 1: Promotion			Potential Parking Reduction	
# TDM Initiative		Score	Specification	Group 1
1.1a Provide Additional Transit Incentives - Non-Residential		2 to 8	Applicant subsidizes 50% of the cost of monthly transit passes for all employees for one year	4
		2100		
		2 to 8	Applicant provides a 50% subsidy for monthly tranist passes for one year in addition to the incentives offered by the MyTri program	<sup>p</sup> 4
		1 to 4	Applicant does not provide a subsidy for other sustainable transportation initiatives	0
1.4 Awards / recognition program		1	Yes (service provided by pointA)	0
		1	Yes (service provided by pointA)	0
		1 to 4	Option 1: Applicant provides travel information in promotional material and resident welcome packages	1
1.7 Guaranteed Ride Home program (i.e. Emergency Ride Home)		1	Yes (service provided by pointA)	0
	Minimum Score Requirement	1	Maximum Potential Parking Reduction:	6%
	Max Applicable Score	27		
Category 2: Active Transportation			Potential Parking Reduction	
¥ TDM Initiative		Score	Specification	Group 1
		1 to 2	Option 1: Minimum bicycle parking requirements provided	0
2.4 Provide Separated Access to Long-Term Bicycle Parking Areas		1	Yes	1
	Minimum Score Requirement	1	Maximum Potential Parking Reduction:	4%
	Max Applicable Score	3		170
ategory 3: Transit			Potential Parking Reduction	
FDM Initiative		Score	Specification	Group 1
3.1 Provide transit information kiosks at major destinations		1	N/A	0
		1	Yes	1
		1	Yes	1
		4 to 14	No shuttle service proposed	0
	Minimum Score Requirement	1	Maximum Potential Parking Reduction:	13%
	Max Applicable Score	17		
Category 4: Parking Management		<b>r</b>	Potential Parking Reduction	-
F TDM Initiative		Score	Specification	Group 1
		2	Yes	(Reduction i CZBL)
		1	No preferential carpool parking spaces provided	0
		5	Yes	5
		2	Yes	2
		0 to 2	Parking is free/prepaid for users	0
		1	Yes	1
	Minimum Score Requirement	0	Maximum Potential Parking Reduction:	6%
	Max Applicable Score	13		
Category 5: Other TDM Initiatives			Potential Parking Reduction	-
TDM Initiative		Score	Specification	Group 1
		1	Yes N/A	1
5.2 Micromobility (including bike share and kick e-scooters) *		1	N/A Yes	0
5.3 Support the YRT Mobility On-Request Service 5.4 Remote Work Support		1 1 to 4	Yes No remote work opportunities provided	0
5.5 pointA Transportation Management Association Membership		2	Yes	2
i.6 Provide a Vanpool Program		2	N/A	0
		Up to 5	Please specify your innovative TDM initiatives in the Additional Comments box below Section 4, and assign yourself a fitting score to the right.	-

	Minimum Score Ro Max Applicable Sc		Maximum Potential Parking Reduction: Total Points Awarded:	169
TION 4 - SUN	MMARY	TDM Score Met?	Yes!	
	TDM Initiatives Score Summary	Total Score	Potential Parking Reduction	
	Category 1: Promotion	9	2.0%	
	Category 2: Active Transportation	1	1.3%	Show Level 1 table
	Category 3: Transit	2	1.5%	
	Category 4: Parking Management	10	4.6%	
	Category 5: Other TDM Initiatives	4	4.0%	
	TOTAL POINTS AWARDED	26	Res: 13.4% Non-Res: 10% (max)	

Additional Comments

For more information, please contact:

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## Final Guideline City of Vaughan Transportation Demand Management Development Guideline

**Transportation Demand Management Initiatives** 



Prepared for City of Vaughan by IBI Group September 9, 2021

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## 1 Introduction to Transportation Demand Management

Transportation Demand Management (TDM) is the use of policies, programs, services, and products to influence travel behaviour and manage travel demand by encouraging users to shift to sustainable modes and distributing trips outside of the peak travel period. TDM focuses on encouraging walking, cycling, public transit, or carpooling instead of single occupancy vehicle (SOV) travel.

TDM addresses transportation challenges by implementing infrastructure and programming that encourages active and sustainable travel. TDM-supportive infrastructure such as bike lanes, trails, end-of-trip facilities, and carpool parking can build capacity for daily sustainable travel. TDM programming increases awareness of the various available travel options, educates the community on sustainable travel, and can remove common barriers that individuals face when considering travel by a sustainable mode.

Historically, Vaughan's built form has been auto-centric, building a strong automobile culture among residents. With new investments in transit and active modes throughout the City, coupled with building TDM-supportive developments, there is potential to grow the use of sustainable modes, reducing the reliance on automobiles, especially in areas like the Vaughan Metropolitan Centre.

An effective TDM approach includes improvements to travel options and incentives to encourage behaviour change. The TDM Guideline and Toolkit can help influence residents, workers and visitors' decisions about how they travel. Through the TDM Guideline and Toolkit, the City is working to encourage the use of sustainable travel options for residents. This Guideline describes TDM initiatives that integrate sustainable travel infrastructure and programs into the new developments and is structured as follows:

- Chapter 1 is an overview of TDM and outlines the benefits of TDM for developers.
- **Chapter 2** describes the reporting requirements based on the type of development and is to be confirmed in consultation with City staff.
- **Chapter 3** summarizes the variety of recommended TDM initiatives based on different character areas and how the TDM Toolkit is to be used. Recommended TDM initiatives depend on the type, location and context of each site.
- Chapter 4 describes how the City will monitor the success of the TDM initiatives and the implementation mechanisms that may be used to integrate TDM into the development process.
- Appendix A provides the specific Guidelines for each TDM initiative.

This Guideline is intended to be used with the TDM Toolkit which is described in Section 2.2.

### 1.1 Purpose of the TDM Guideline

By implementing TDM initiatives into new development, communities can be designed to support active and sustainable travel from the earliest phases of the development process. The use of TDM initiatives during the development approvals process builds integrated mobility options for everyone in the community creating healthier, sustainable, and connected communities. Integrating TDM initiatives into the development approvals process using checklists, scorecards, TDM plans, and other methods are common practice in the City of Vaughan, York Region, and many municipalities in Ontario and North America.

The recommended TDM initiatives are intended to provide on-site amenities that will influence sustainable travel options to reduce dependency on private automobiles. The benefits vary by type of development, location, and context, but generally include:

- Opportunities to build at higher densities, as sustainable modes maximize the use of existing infrastructure;
- Lower construction costs by reducing parking requirements (as applicable);
- Repurposing space that would typically be for parking to create additional units or building amenities;
- Increasing the marketability of the project and reach a customer base that desire a variety of travel options; and
- Earning additional points for LEED accreditation.

Integrating TDM into the development approvals process is rooted in legislation across all levels of government to support mobility and growth objectives. These policy documents support requiring TDM initiatives at the development approvals stage, ensuring non-single occupancy vehicle (SOV) options are temporally and financially competitive travel options. Policy documents that support integrating TDM into the development approvals process is displayed in Exhibit 1-1.

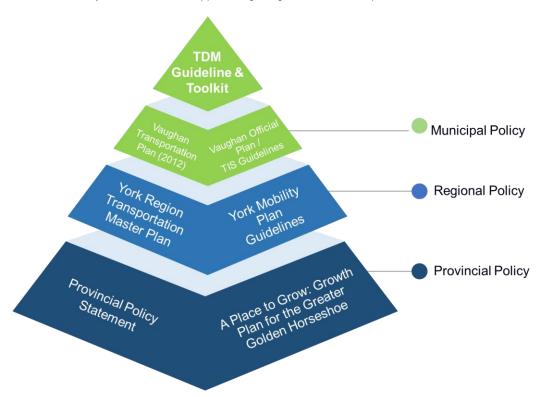


Exhibit 1-1: Policy Documents that Support Integrating TDM and Development

## 2 TDM Requirements

This section describes the TDM requirements and the process to use the TDM Toolkit and Guideline. The TDM Toolkit and TDM Guideline are intended to supplement existing resources by highlighting opportunities for applicants to implement TDM initiatives that are relevant to their project. It is not intended to replace legislative or zoning requirements.

When submitting a development application, applicants are required to attend a pre-application meeting to confirm the submission requirements for the application. The TDM requirements are determined by City staff during the pre-application meeting.

The City of Vaughan supports the integration of TDM initiatives by working with applicants to find appropriate solutions using the TDM Toolkit and TDM Guideline. The TDM Toolkit is an interactive form that is to be completed by the applicant and submitted to the City of Vaughan for evaluation (refer to Section 0). The TDM Guideline provides recommendations to inform applicants on how to integrate TDM initiatives into their developments (refer to **Section 3** and **Appendix A: TDM Initiatives Guideline**).

A list of typical TDM submission requirements is described in Section 2.3.

### 2.1 Character Areas

Integrating TDM initiatives into new development is challenging when using a one-size-fits-all approach. To provide a context-sensitive approach, the City is divided in to four character areas (Exhibit 2-1) which accounts for the land uses, location, available and planned transportation options, and parking requirements. The character areas are reflective of the groups of zones in the parking space rates section of the Comprehensive Zoning By-Law (CZBL) which specifies different parking requirements for each group. For example, the Vaughan Metropolitan Centre (VMC) has the lowest parking requirements compared to other areas of the city due to the nearby infrastructure. Additionally, each character area has unique attributes that require context-specific guidance. For example, TDM initiatives that are required in the VMC may not be applicable in other areas such as "Other Zones". A freehold subdivision in an "Other Zones" would be subject to lower TDM requirements.

Character Area	Comprehensive Zoning By-Law Groups
Vaughan Metropolitan Centre (VMC)	Vaughan Metropolitan Centre (VMC)
Group 1	Mid-Rise Mixed-Use Zone (MMU)
	High-Rise Mixed-Use Zone (HMU)
	Community Commercial Mixed-Use Zone (CMU)
	General Mixed-Use Zone (GMU)
	Employment Commercial Mixed-Use Zone (EMU)
Group 2	Low-Rise Mixed-Use Zone (LMU)
	Main Street Mixed-Use – Kleinberg Zone (KMS)
	Main Street Mixed-Use – Maple Zone (MMS)
	Main Street Mixed-Use – Woodbridge Zone (WMS)
Other Zones	Other Zones

Exhibit 2-1: Character Areas

### 2.2 TDM Toolkit

Following the context-sensitive approach, the TDM Toolkit is split into Level 1 and Level 2 applications. The Level 1 and Level 2 TDM Toolkit have different requirements, based on the character and priority area, and the *gross* number of peak hour trips generated as seen in Exhibit 2-2.

The TDM trigger thresholds are based on gross peak trip generation of the proposed land use. For land use conversion applications, the gross peak trips generated by the proposed development is to be applied. For example, if a commercial building is being converted into a mixed-use building, then the gross peak trips generated by the mixed-use building will apply to the TDM Toolkit.

A comparison of the Level 1 and Level 2 TDM Toolkit is displayed in Exhibit 2-3.

When filling out the TDM Toolkit, inputting the development characteristics will automatically determine what Level the application is and which TDM initiatives are required. By selecting the TDM Initiatives that will be implemented, the score will automatically update. The score must meet the minimum score requirements depending on the application level.

	Less than 20 trips		20 to 5	0 trips	> 50 trips		
	Low Priority Area	y Priority Area		High Priority Area	Low Priority Area	High Priority Area	
VMC							
Group 1	Lev	/el 1	Level 2				
Group 2							
Other	Level 1		Level 1	Level 2	Le	vel 2	

Exhibit 2-2: City of Vaughan TDM Triggers

Exhibit 2-3: Level 1 and 2 TDM Toolkit Comparison

Category	Level 1	Level 2	
	<ul> <li>Comprehensive Zoning By-Law and Official Plan requirements</li> </ul>	All Level 1 TDM initiatives	
Description	<ul> <li>York Region Mobility Plan Guidelines requirements</li> </ul>	<ul> <li>Additional requirements depending on the character and priority area and gross number of peak trips generated</li> </ul>	
Minimum Score Required	All Level 1 TDM Initiatives must be implemented	Complete Section 1 of the TDM Toolkit. The minimum score required varies depending on the project characteristics.	

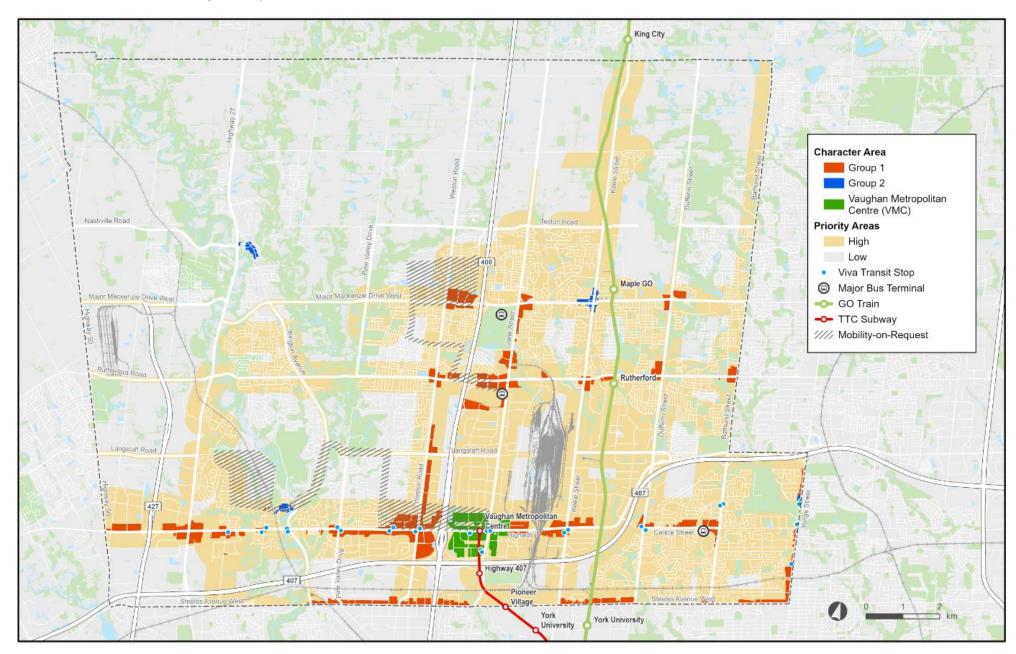
A development is within a high priority area if it meets one or more of the following criteria:

- Within 800m of higher-order transit;
- Within 400m of local transit with a 30-minute or more frequent headway;
- Along bike spine networks; and
- Within a York Region Major Transit Station area.

A development is within a low priority area if located *outside* of a high priority area. A map displaying the character and priority areas is displayed in Exhibit 2-4.

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Exhibit 2-4: Character Area and Priority Area Map



### 2.2.1 Potential Parking Reductions

The City of Vaughan's Comprehensive Zoning By-Law (CZBL) introduces new parking rates, including parking maximums in three areas. The CZBL offers a reduction of parking requirement in exchange for the provision of shared parking spaces, carpool parking spaces, carshare parking spaces.

The TDM Toolkit offers additional potential parking reductions for each category of TDM initiatives. The parking reductions listed in the TDM Toolkit are for reference only and are to be used in conjunction with a Parking Justification Report (as applicable and through consultation with Staff). For non-residential uses, the maximum potential parking reduction is 10%.

The parking reductions provided through the CZBL are not eligible for additional parking reductions through the TDM Toolkit (e.g. Carpool/Car Share/Shared Parking).

### 2.2.2 Land Use

The TDM Toolkit accounts for different land uses by adjusting the TDM initiatives displayed and minimum score requirements. Depending on the project characteristics, not all TDM initiatives are relevant (e.g. TDM intended for residential applications are not applicable to office / commercial applications). The land use categories and examples of the uses are included in Exhibit 2-5. The land use category to be selected should be confirmed in consultation with City Staff. Staff may determine the land use to be selected for any given development.

Land Use	Examples
Residential	All Residential Uses with no other uses on the site
Mixed Use	Residential Uses plus other uses
Office / Commercial	Office, Clinic, Hotel, Business Service, Place of Assembly, etc.
Retail / Service	Retail, Shopping Centre, Supermarket, Restaurant, Health and Fitness, Personal Service, etc.
Employment / Warehouse	Warehousing, Industrial, Manufacturing, etc.

Exhibit 2-5: Land Use Categories and Examples

### 2.3 TDM Submission Requirements

After attending the pre-application meeting and confirming TDM requirements with the City of Vaughan, applicants will typically be asked to submit the following items as part of their development application:

- Completed TDM Toolkit (refer to **Section 0**);
- Site and floor plans highlighting all proposed physical TDM initiatives such as but not limited to:
  - Pedestrian facilities (e.g. sidewalks, crosswalks)
  - Proposed locations, quantity, and access to cycling facilities (e.g. bicycle parking, bike repair stations, separated bicycle access to underground parking area);
  - Proposed locations of end-of-trip facilities (e.g. bicycle storage room, shower and locker change rooms);
  - Proposed locations of carpool and/or carshare parking;
  - Proposed parking supply;
  - o On-site transit infrastructure (e.g. transit stops, kiosks, real-time screens)

- o Pick-up and drop-off zones for passengers, loading, and shuttle services; and
- Wayfinding signage locations.

### Completed Appendix B: Cost and Implementation Table

Notwithstanding the requirements outlined in Exhibit 2-2, applicants may be requested to complete the TDM Toolkit at the discretion of City staff (e.g. if the proposed development contributes to existing capacity constrained movements in the area).

The City of Vaughan reserves the right to request additional TDM initiatives for proposed developments that will have a significant impact on the local transportation system. The City will work with the applicant to develop a comprehensive TDM Plan that will address the City's concerns.

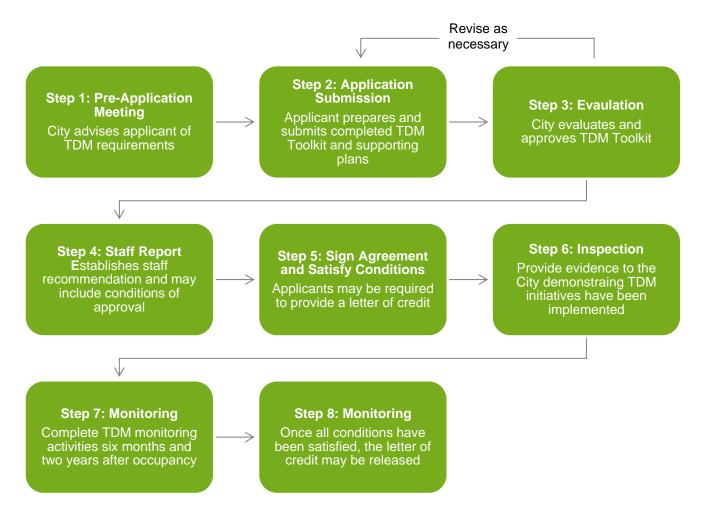
### 2.3.1 York Region Mobility Plan Guidelines Integration

The City's TDM requirements builds on the York Region Mobility Plan Guidelines, which requires the submission of a TDM Plan and Checklist if the project meets certain criteria. During the preapplication meeting, applicants will be notified if they are required to submit a TDM Plan and Checklist to York Region. Refer to the York Region Mobility Plan Guidelines to determine if the project meets the York Region TDM Plan criteria. The City's TDM requirements are compatible with the Region's requirements and are tailored to the City's local context as specific elements of the application, such as parking, loading, urban design, and internal site circulation, are under the jurisdiction of the City of Vaughan.

### 2.4 TDM Submission Process

Exhibit 2-6 outlines the typical TDM submission process. Depending on the application, the submission process may vary, and the TDM requirements are subject to change at the discretion of City staff.

### Exhibit 2-6: TDM Submission Process



## 3 TDM Initiatives

This chapter summarizes the different TDM initiatives to support TDM within development projects and are based on industry best practices. The City of Vaughan supports the integration of TDM initiatives by working with applicants to find appropriate solutions using the recommendations presented in the summary table in **Exhibit 3-1**.

The TDM initiatives are organized into five different categories:

- 1. **Promotion:** Programs that promote the use of sustainable travel options and monitors success of all TDM initiatives
- 2. Active Transportation: Implementing infrastructure that supports the use of humanpowered transportation (e.g. walking, cycling)
- **3. Transit:** Implementing infrastructure and trip planning resources that supports the use of transit
- **4. Parking:** Utilizing parking management strategies and programs that discourage driving alone and may reduce minimum parking requirements
- **5. Other TDM Initiatives**: Implementing additional TDM-supportive programs and preparing for future infrastructure and programs

Each TDM initiative has specific guidance relating to the character area, typical land use, effectiveness, and cost. Applicants are encouraged to utilize the guidelines presented in **Appendix A: TDM Initiatives Guideline.** 

Each sheet contains a description of the TDM initiatives, recommendations on how to implement the TDM initiative, recommendations specific to a character area (if applicable), and additional resources. Each TDM initiative is rated on a scale of effectiveness and typical cost estimates where:

High Effectiveness = •••High Cost = \$\$\$Medium Effectiveness = ••Medium Cost = \$\$Low Effectiveness = •Low Cost = \$

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Exhibit 3-1: Table of TDM Initiatives			<b>Character Areas</b>			Recommended	Land Uses		Effectiveness	Typical
	VMC	Group 1	Group 2	Other Zones	Residential	Commercial	Industrial	Institutional		Costs
Category 1: Promotion / Monitoring										
1.1 Provide Transit Incentives	√	$\checkmark$	√	√	✓	$\checkmark$	$\checkmark$	$\checkmark$	•••	\$\$
1.2 Communication Strategy	✓	$\checkmark$	✓	√	✓	√	$\checkmark$	√	•	\$
1.3 Provide Financial Incentives for Sustainable Transportation	✓	$\checkmark$	✓	✓	✓	$\checkmark$	$\checkmark$	$\checkmark$	•	\$
1.4   Awards / Recognition Program	√	$\checkmark$	✓	✓	✓	$\checkmark$	$\checkmark$	$\checkmark$	•	\$
1.5 Cycling Skills Courses	✓	$\checkmark$	✓	√	✓	√	$\checkmark$	√	••	\$\$
1.6 Provide Individualized Marketing Programs & Travel Plans	√	$\checkmark$	√	√	✓	$\checkmark$	$\checkmark$	$\checkmark$	•••	\$\$\$
1.7 Guaranteed Ride Home Program (i.e. Emergency Ride Home)	√	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	~	√	••	\$\$
Category 2: Active Transportation										
2.1 Pedestrian Network Implementation	√	$\checkmark$	√	✓	✓	√	$\checkmark$	√	••	Design cos
2.2 Cycling Network Implementation	√	$\checkmark$	√	√	✓	√	$\checkmark$	√	•••	\$\$\$
2.3 Provide Long and Short-Term Bicycle Parking	√	$\checkmark$	√	√	√	$\checkmark$	$\checkmark$	$\checkmark$	•••	\$\$
2.4 Provide Separated Bicycle Access to Long-Term Bicycle Parking	√	$\checkmark$	√	√	√	$\checkmark$	$\checkmark$	$\checkmark$	••	Design Cos
2.5 Provide Shower and Change Room Facilities	√	$\checkmark$	$\checkmark$	✓		$\checkmark$	$\checkmark$	$\checkmark$	•••	\$\$
2.6 Install Bike Repair Station	√	$\checkmark$	$\checkmark$	√	√	$\checkmark$		$\checkmark$	••	\$\$
Category 3: Transit										
3.1 Provide Transit Information Kiosks at Major Destinations	√	$\checkmark$			√			$\checkmark$	•	\$\$
3.2 Provide Weather-Protected Waiting Areas	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	••	\$\$
3.3 Provide Real-Time Transit Information	√	$\checkmark$	√	√	√	$\checkmark$	$\checkmark$	$\checkmark$	••	\$
3.4 Launch Shuttle Services		$\checkmark$	√	√	✓	√	$\checkmark$	√	•••	\$\$\$
Category 4: Parking										
4.1 Provide Dedicated Carshare Vehicle Spaces	√	$\checkmark$	~	$\checkmark$	✓			$\checkmark$	•••	Design cos
4.2 Provide Preferential Carpool Parking Spaces	√	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	•••	Design cos
4.3 Unbundle Parking From Unit Cost	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$				•••	Design cos
4.4 Implement Employee Parking Cash Out Program	√	$\checkmark$				$\checkmark$		$\checkmark$	•••	\$\$\$
4.5 Implement Paid Parking	√	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		•••	\$\$
4.6 Implement Pick-Up and Drop-Off Zones	√	$\checkmark$	$\checkmark$	$\checkmark$	√	$\checkmark$	$\checkmark$	$\checkmark$	•••	Design cos
Category 5: Other TDM Initiatives										
5.1 Install Wayfinding Signage	√	$\checkmark$	~	$\checkmark$	✓	$\checkmark$	$\checkmark$	$\checkmark$	••	\$\$
5.2 Offer Micromobility Services*	√				~	$\checkmark$		$\checkmark$	•••	\$\$\$
5.3 Support the YRT Mobility On-Request Service	√	$\checkmark$	~	✓	✓	$\checkmark$	$\checkmark$	$\checkmark$	••	\$
5.4 Provide Ongoing Support for Working Remotely	√	$\checkmark$	✓	✓		$\checkmark$	$\checkmark$	$\checkmark$	••	\$
5.5 Provide pointA Transportation Management Association Membership	√	$\checkmark$	✓	✓	✓	$\checkmark$	$\checkmark$	$\checkmark$	•••	Varies
5.6 Provide a Vanpool Program	√	$\checkmark$	✓	✓		$\checkmark$	$\checkmark$	$\checkmark$	•••	\$\$\$
5.7 Implement Innovative TDM Initiative	√	√	✓	✓	✓	$\checkmark$	√	√	TBD	Varies

\* Coordinate with City Staff

## 4 Implementation and Monitoring

Upon staff approval of the submitted TDM Toolkit and plans, applicants will be required to enter into an agreement with the City as part of the conditional approval stage of the development approvals process. The agreements are meant to ensure the applicant will commit to implementing all the TDM initiatives that were identified in the approved TDM Toolkit prior to receiving their building and occupancy permits. Ongoing monitoring activities will take place starting six months after occupancy for two years.

### 4.1 Implementation Mechanisms

The following implementation mechanisms will be used to ensure that the agreed-to TDM initiatives are delivered, whether they are physical infrastructure or provision of some service:

- **Policy:** Support for incorporating TDM into the development approvals process in documents such as the Provincial Policy Statement, A Place to Grow: Growth Plan for the Greater Golden Horseshoe, York Region TMP and OP, and the City of Vaughan OP and TMP provide the necessary policy framework to require TDM initiatives.
- **Zoning By-laws:** The CZBL integrates TDM initiatives, enabling the City of Vaughan to require, regulate, and control the implementation of some TDM initiatives.
- **Site Plan:** all applicable hard TDM measures (e.g. bicycle parking) will be required to be shown on the approved site plans;
- **Development/Subdivision/Condominium/Site Plan Agreements:** Select TDM initiatives may be included as conditions on the applicable agreement between the City and the applicant. TDM initiatives will be included throughout the development approvals process where applicable. For example, some TDM initiatives may be included on a subdivision agreement, while others may be included on a site plan agreement.
- **Inspections**: The installation of some TDM initiatives that are included in the Zoning By-Law (e.g. shower and change facilities) may be verified. The TDM Coordinator, in coordination with the landowner, may also conduct their own inspection to verify the implementation of TDM initiatives. The applicant will be required to provide photo evidence or other proof to the City.
- Letter of Credit: The letter of credit issued will be required at a value that would allow the City to deliver any outstanding TDM initiatives and conduct travel surveys. Applicants must satisfy the conditions of the signed agreement(s) and complete required monitoring activities. To release the letter of credit, the applicant must demonstrate:
  - All hard TDM initiatives on a site plan were installed;
  - Provide a copy of their contract or agreements with a separate delivery agent for "soft" TDM initiatives (e.g. PointA contract for Smart Commute program services); and
  - Demonstrate that a specific deliverable has been met (e.g. statistically significant baseline and follow-up survey results).

### 4.2 Monitoring

The City of Vaughan requires all residential developments producing 50 or more gross peak hour trips (i.e. Level 2 residential and mixed-use developments) to participate in a TDM monitoring program to measure the success and effectiveness of the TDM initiatives implemented. At the discretion of City staff, some developments that produce less than 50 gross peak trips may be requested to participate in the monitoring program.

The applicant may wish to hire a third party (e.g. pointA or a transportation consultant) to complete the monitoring activities on their behalf. It is advantageous to encourage employment facilities to join the Smart Commute program, which already has effective TDM resources and experience, and completes annual monitoring activities. However, under certain circumstances the City may request a non-residential development to participate in the monitoring requirements. Non-residential developments will also still be required to provide evidence of TDM measures.

For all monitoring surveys, applicants must meet a statistically significant response rate. The sample size must have a minimum of a 95% confidence level and 5% margin of error. Applicants can use a <u>sample size calculator</u> to determine the minimum number of responses required.

The required monitoring activities will take place upon occupancy. The monitoring program consists of the following steps:

- **Step 1:** Completion of a baseline and follow-up travel survey will be required for all Level 2 residential developments generating more than 50 gross peak trips. The decision by staff on surveying other developments that produce less than 50 peak trips will be on a case-by-case basis. Additional monitoring activities such as travel, or parking counts may be requested by City staff to measure success of specific TDM initiatives.
- **Step 2:** Within one year of occupancy, applicants (or a designated third party) distribute the baseline travel survey and confirm that a statistically significant amount of survey responses have been received. A short follow-up report detailing the photo evidence of the installed TDM initiatives, identify any outstanding TDM initiatives, and the completed survey data should be submitted to the City.
- **Step 3:** Two years after occupancy, applicants (or a designated third party) distribute the follow-up travel survey and confirm that a statistically significant amount of survey responses have been received. A follow-up short report detailing the photo evidence of the installed TDM initiatives and the completed survey data should be submitted to the City.
- **Step 4:** Upon completion of the follow-up survey, submission of the follow-up report and other TDM-related conditions have been met, the letter of credit will be released to the applicant.

It is the applicant's responsibility to ensure that monitoring activities are completed and confirmed with the TDM Coordinator. Refer to Appendix B for a sample travel survey.

### 4.3 Follow-Up Report

A Follow-Up Report is required to be submitted in addition to the travel survey results during Step 2 and Step 3. The follow-up report requires the applicant to demonstrate that the agreedupon TDM initiatives have been implemented and provide photo evidence for documentation.

At a minimum, the Follow-Up Report should include a list of the TDM initiatives implemented and provide photo evidence of physical infrastructure (e.g. secure bike parking) or provide agreements/proof of correspondence with a third party responsible for delivering TDM programs.

# Appendix A: TDM Initiatives Guideline

## 1 Promotion

### 1.1 Provide Additional Transit Incentives

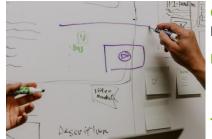


500	CATEGORY		YORK	<b>REGION RE</b>	QUIREMENT
AV	Promotion			$\checkmark$	
	RECOMMEN	DED CH	ARACT	ER AREAS	
1	VMC	Group	o 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
(O	TYPICAL LA	ND USES	5		
	Residential	Comme	rcial	Industrial	Institutional
ß	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	TYPIC	AL COST	POINTS
	•••			\$\$	2 to 8

Description	<ul> <li>Builds awareness, understanding, and encourages the use of sustainable modes by removing financial barriers</li> </ul>
	• Free or subsidized fares are an attractive incentive for single occupant vehicles, enables sustainable travel options to be more competitive to achieve modal targets.
	<ul> <li>Effective incentives can include discounted transit fares, pre- loaded PRESTO cards, bikeshare and carshare memberships (if available)</li> </ul>
Guidance	<ul> <li>For residential or mixed-use applications that meet York Region TDM Plan requirements, work with York Region to provide pre- loaded PRESTO cards through the MyTrip Program, funded by York Region Development Charges.</li> </ul>
	<ul> <li>Providing additional transit incentives beyond the York Region requirements is encouraged.</li> </ul>
	<ul> <li>Encourage large-scale employers to participate in the YRT@WORK discounted public transit pass subscription program for their employees.</li> </ul>
	<ul> <li>Additional incentives beyond YRT@WORK are encouraged, as well as transit subsidies for all workplaces.</li> </ul>
	Option 1
	<ul> <li>For residential uses, the applicant provides minimum requirements set by York Region</li> </ul>
	Option 2 – 4
	<ul> <li>For residential uses, the applicant provides 25% - 100% subsidy for monthly transit passes for one year in addition to the incentives offered by the MyTrip program</li> </ul>
	<ul> <li>For non-residential uses, the applicant provides 25%-100% subsidy for monthly transit passes for all employees for one year</li> </ul>

Development Review	<ul> <li>The applicant shall specify the level of contribution or incentive using the TDM Toolkit</li> <li>The applicant and City of Vaughan shall include the provision of financial incentives as a condition of the applicable development agreement and/or through a letter of credit</li> </ul>					
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals</li> </ul>					
ADDITIONAL GUID	ANCE					
ADDITIONAL RESOURCES	<u>York Region – MyTrip TDM Program</u> <u>YRT@WORK Program Information</u> <u>York Region – Transportation Demand Management Checklist</u> <u>City of Toronto – VIP Monthly Pass Program</u> <u>TTC Post-Secondary Monthly Pass</u>					

## 1.2 Communication Strategy



HI Phone I	CATEGORY		YORI	<b>K REGION</b> R	EQUIREMENT
R Z L	Promotion			$\checkmark$	
Y	RECOMMEN	DED CH	ARAC <sup>.</sup>	TER AREAS	
Jeant	VMC	Group	o 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
-	TYPICAL LA	ND USES	5		
	Residential	Comme	ercial	Industrial	Institutional
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS
	•			\$	N/A

Description	<ul> <li>Distributing information that promotes all sustainable travel options in print or online</li> </ul>
	<ul> <li>Information can include trip planning tools, transit schedules and route information, pedestrian and cycling facilities, carpool parking spaces, and carshare and bikeshare membership and service information (if available)</li> </ul>
	<ul> <li>Individualized marketing provides resources such as training, trip planning tools, and incentives customized to individual's needs to promote the use of active and sustainable travel options. Individualized marketing is most effective for new or relocating employees, new residents, and students looking to explore their travel options</li> </ul>
Guidance	<ul> <li>Distribute information in resident welcome packages (one per unit), on-site in an accessible location such as the front desk, during promotional campaigns, events, and educational programs</li> </ul>
	Make documents accessible to both residents and employees
	<ul> <li>Provide a sustainable travel options information package to new/relocating employees, students, and residents</li> </ul>
	<ul> <li>Display maps and schedules of transit routes, and nearby walking/cycling infrastructure and routes to key destinations, near the entrance</li> </ul>
	<ul> <li>Post sustainable travel options information on an online platform available to all (e.g. employee intranet portal, online learning platform for students, resident property management platform)</li> </ul>
	<ul> <li>Implement an individualized marketing program to work with residents, employees, or students to explore their travel options.</li> </ul>
	<ul> <li>The individualized marketing program delivery can be contracted to a third-party, such as pointA, which operates the</li> </ul>

	Smart Commute North Toronto-Vaughan program or by committing to participating in the York Region MyTrip program (if eligible).			
Development Review	<ul> <li>The applicant shall agree to prepare a communications strategy as a condition of the applicable development agreement and/or through a letter of credit</li> </ul>			
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals</li> <li>Submit photos and documentation/examples of the collateral/products distributed</li> </ul>			
ADDITIONAL GUID	ANCE			
ADDITIONAL RESOURCES	Ottawa – TDM Measures Checklist         Arlington Transportation Partners - Services         Arlington County – Transportation Information Display Standards         Guide         York Region – MyTrip TDM Program (Individualized Marketing Program)         Arlington Transportation Partners – Commute Planner (Individualized Marketing Program)			

### 1.3 Provide Financial Incentives for Sustainable Transportation



RN MI	CATEGORY		YOR	K REGION R	EQUIREMENT
NEIG	Promotion			$\checkmark$	
	RECOMMEN	DED CH	ARAC	TER AREAS	
	VMC	Grou	р 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	<b>TYPICAL LA</b>	ND USE	S		
	Residential	Comme	ercial	Industrial	Institutional
- 40	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
Mart -	EFFECTIVE	NESS	ТҮРІ	CAL COST	POINTS
	•			\$	1 to 4

Description	<ul> <li>Builds awareness, understanding, and encourages the use of sustainable modes by removing financial barriers</li> <li>Providing financial incentives such as bikeshare and carshare memberships (if available) enables sustainable travel options to be more competitive to achieve modal targets</li> </ul>		
Guidance	Option 1		
	<ul> <li>Applicant does not provide a subsidy for other sustainable transportation initiatives</li> </ul>		
	Option 2 – 6		
	<ul> <li>Applicant provides a 25% - 100% subsidy for other sustainable transportation initiatives (e.g. carshare or bikeshare memberships)</li> </ul>		
	<ul> <li>For non-residential uses, offer employees a taxable, commuting allowance which can be used towards choosing a sustainable mode of travel (e.g. transit fare, or bicycle maintenance)</li> </ul>		
Development Review	<ul> <li>The applicant shall specify the level of contribution or incentive using the TDM Toolkit</li> </ul>		
	<ul> <li>The applicant and City of Vaughan shall include the provision of financial incentives as a condition of the applicable development agreement and/or through a letter of credit</li> </ul>		
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals</li> </ul>		
ADDITIONAL GUIDA	NCE		
ADDITIONAL RESOURCES	San Francisco TDM Program Standards		

## 1.4 Awards / Recognition Program



Description	<ul> <li>Awards are given to organizations, developers, individuals, and businesses that demonstrate outstanding efforts in promoting cycling, walking and/or transit usage by creating a friendly environment for these modes through infrastructure, promotional/education program or other initiatives</li> <li>Recognition for implemented TDM initiatives can be used as a selling feature for proposed developments</li> </ul>
Guidance	<ul> <li>Upon implementation of a suite of TDM initiatives, apply for the Awards / Recognition program to be publicly recognized by the City of Vaughan for having a sustainable transportation-friendly development</li> </ul>
	<ul> <li>Nominate individuals (employees or residents) that actively supports and promote the use of healthy and sustainable travel modes</li> </ul>
	<ul> <li>Encourage residents and other members of the public to submit nominations for consideration for the applicable categories</li> </ul>
Development Review	<ul> <li>The applicant shall indicate participation in an Awards/Recognition Program on the TDM Toolkit</li> </ul>
	<ul> <li>The City of Vaughan has full discretion whether applications are eligible based on the development and range of measures proposed</li> </ul>
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals to be considered for an award or recognition</li> </ul>
ADDITIONAL GUIDA	ANCE
ADDITIONAL RESOURCES	City of Hamilton – Community in Motion Awards

## 1.5 Cycling Skills Courses



	CATEGORY Promotion		YORI	K REGION R	EQUIREMENT
·	RECOMMEN	DED CH	ARAC <sup>.</sup>	TER AREAS	
	VMC	Grou	p 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	TYPICAL LA		S		
	Residential	Comme	ercial	Industrial	Institutional
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS
	••			\$\$	1

Description	<ul> <li>Educational program that reduces barriers to try cycling as a mode of everyday travel, focusing on cycling fundamentals, safety, and guidelines for cycling individually or in a group</li> <li>Target audience is potential cyclists that may hesitate to ride on streets shared with motor vehicles or other areas</li> <li>On-road cycling skills courses should be taught by CAN-BIKE certified instructors</li> </ul>
Guidance	<ul> <li>Offer cycling skills courses for new residents, students, and employees interested in trying cycling</li> <li>Offer on-site cycling courses at least once per year for those interested in cycling</li> <li>When new cycling infrastructure is installed near the proposed development, host a cycling skills course for those interested in cycling</li> <li>Courses should include information or demonstrations on how to load a bicycle on the front of a bus</li> </ul>
Development Review	<ul> <li>The applicant shall indicate if they will offer Cycling Skills Courses on the TDM Toolkit</li> <li>The applicant shall submit proof of correspondence to organize a Cycling Skills Course as a condition of the applicable development agreement and/or through a letter of credit</li> </ul>
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals</li> </ul>
ADDITIONAL GUID	ANCE
ADDITIONAL RESOURCES	<u>York Region – Cycling Education</u> <u>CanBike – Program</u>

### 1.6 Provide Individualized Marketing Programs & Travel Planning Resources



CATEGORY Promotion		YORK REGION F	REQUIREMENT
RECOMMEN	DED CHA	RACTER AREAS	5
VMC	Group	1 Group 2	Other
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
TYPICAL LA	ND USES		
Residential	Commer	cial Industrial	Institutional
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
EFFECTIVE	NESS	TYPICAL COST	POINTS
		\$\$\$	1 to 4

Description	<ul> <li>Individualized marketing provides resources such as training, trip planning tools, and incentives customized to individual's needs to promote the use of active and sustainable travel options</li> <li>Most effective for new or relocating employees, new residents, and students looking to explore their travel options</li> </ul>			
Guidance	• The property owner shall implement a community-based social marketing campaign for new residents focused on providing information on the transit, cycling, pedestrians, and other travel options available to them.			
	Option 1:			
	<ul> <li>Applicant provides travel information in promotional material and resident welcome packages</li> </ul>			
	Option 2:			
	<ul> <li>Provide all of Option 1, and requesting commitment from residents/employees to try a new mode</li> </ul>			
	Option 3:			
	<ul> <li>Provide all of Option 2, and conduct at least one outreach event annually and providing additional financial incentives (at least 25% subsidy)</li> </ul>			
	Option 4:			
	<ul> <li>Provide all of Option 3, and enroll residents/employees in a trip tracking application (e.g. Smart Commute Tool), provide ongoing financial incentives (at least 25% subsidy), and join the Smart Commute and/or MyTrip program</li> </ul>			
Development Review	<ul> <li>The applicant shall indicate if they will offer an Individualized Marketing Program on the TDM Toolkit</li> </ul>			

	<ul> <li>The applicant shall submit proof of correspondence to join the MyTrip or Smart Commute program as a condition of the applicable development agreement and/or through a letter of credit</li> </ul>	
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals, indicating which individualized marketing activities have been completed</li> </ul>	
ADDITIONAL GUIDANCE		
ADDITIONAL RESOURCES	<u>York Region – MyTrip TDM Program</u> Arlington Transportation Partners – Commute Planner	

# 1.7 Guaranteed Ride Home Program (i.e. Emergency Ride Home)

	RIVER	
	A ful	1 Labor
YELLOW	8	30

	CATEGORY Promotion		YORI	K REGION	<b>REQUIREMEN</b>	т
	RECOMMEN	DED CH/		TER AREA	S	
1-	VMC	Group	1	Group 2	Other	
5	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	
	TYPICAL LA		5			
	Residential	Comme	rcial	Industrial	Institutiona	d
		$\checkmark$		$\checkmark$	$\checkmark$	
	EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS	
	••			\$\$	1	

Description	<ul> <li>Provides a subsidized trip or reimburses commuters that use a sustainable transportation option to get to work or school and experiences an unplanned emergency and requires a way home quickly</li> <li>GRH programs acts as a safety net for non-driving commuters to be able to get home as quickly as possible during an emergency and conveniently using a preferred mode of transportation. Eligible trips typically include medical emergencies, unexpected overtime, early departure of a carpool driver, or bike damage on the way home from work.</li> </ul>		
Guidance	<ul> <li>For non-residential uses, join the Smart Commute North Toronto-Vaughan program to access to this established program</li> <li>For residential uses, establish a program that subsidizes or reimburses residents who choose a sustainable mode of travel to get to work or school.</li> </ul>		
Development Review	• The applicant shall submit proof of correspondence to join the Smart Commute program as a paying member as a condition of the applicable development agreement and/or through a letter of credit.		
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals</li> </ul>		
ADDITIONAL GUID	ANCE		
ADDITIONAL RESOURCES	PointA Smart Commute Services Commute Ontario – Emergency Ride Home (ERH) Smart Commute Hamilton Plan Your Trip – Emergency Ride Home		

## 2 Active Transportation

#### 2.1 Pedestrian Network Implementation



	CATEGORY		YC	RK REGION	REQUIRED
	Active Transp	ortation		$\checkmark$	
	RECOMMEN	DED CH	ARAC	TER AREAS	
	VMC	Grou	р 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
-	TYPICAL LA	ND USE	S		
	Residential	Comme	ercial	Industrial	Institutional
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	ТҮРІ	CAL COST	POINTS
	••		De	sign Cost	N/A

Description	<ul> <li>Walking routes between the building entrance(s) and public sidewalks and key destinations generate high pedestrian volumes, and should be pedestrian-friendly, inviting, and convenient</li> <li>Minimizing travel distances and maximizing visibility can</li> </ul>
	encourage pedestrian activity
	<ul> <li>Well-lit pedestrian facilities make walking safer, more comfortable, and accessible</li> </ul>
Guidance	<ul> <li>Implement pedestrian facilities on both sides of all streets (as applicable)</li> </ul>
	<ul> <li>Improve the existing public sidewalk or pathway network, as applicable</li> </ul>
	<ul> <li>All walkways and passageways should be at least 1.5 meters in width (ideally at least 2.0 meters) and include marked crossings, curb cuts, and tactile pavers at crossings</li> </ul>
	<ul> <li>Distribute pedestrian connections evenly throughout blocks and local streets that are open to the public and facilitate active travel</li> </ul>
	<ul> <li>Where public sidewalks and multi-use pathways intersect with roads, provide traffic control devices to give priority to pedestrians and cyclists</li> </ul>
	<ul> <li>Locate building close to the street, ensure parking is located at the rear of the building or hidden from the street where feasible</li> </ul>
	<ul> <li>Locate building entrances strategically to minimize walking distances to sidewalks and transit stops and stations</li> </ul>
	<ul> <li>Provide pedestrian facilities linking entrances with public sidewalks and parking areas including adequate lighting,</li> </ul>

	<ul> <li>shelter, greenery and pedestrian amenities (e.g. benches) where feasible</li> <li>Provide appropriate pedestrian facilities within parking areas (e.g. sidewalks, landscaped islands, pavement markings,</li> </ul>
	textured surfaces, and other traffic control devices where applicable)
	Adhere to the City of Vaughan Pedestrian and Bicycle Master Plan Pedestrian Facilities Implementation Policies
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location, design, and dimensions of existing and proposed active transportation infrastructure throughout the site and on the public road network</li> </ul>
	<ul> <li>The applicant shall submit a pedestrian and bicycle circulation plan, and provide enhancements where gaps are identified</li> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>
Monitoring and Reporting	Provide photographic documentation of the provided infrastructure
ADDITIONAL GUID	ANCE
	<ul> <li>Ensure pedestrian priority corridors and crossings follow desire lines</li> </ul>
	<ul> <li>Design or maintain clear view corridors along sidewalks connecting to important civic buildings and landmarks</li> </ul>
	<ul> <li>Coordinate paving materials and paving patterns with the adjoining public right-of-way</li> </ul>
	<ul> <li>Minimize private driveway crossings over pedestrian circulation routes wherever possible, locating them off rear laneways or side streets whenever feasible</li> </ul>
ADDITIONAL RESOURCES	City of Vaughan Pedestrian Facilities Implementation Policies
	City of Vaughan Pedestrian and Bicycle Master Plan (2020)
	<u>City of Vaughan Pedestrian and Bicycle Master Plan (2020)</u> <u>City of Ottawa TDM Infrastructure Design Checklist</u>
	<u>City of Ottawa TDM Infrastructure Design Checklist</u> <u>Health by Design Guidelines</u> <u>CITE Site Design Guidelines for Sustainable Transportation</u>
	City of Ottawa TDM Infrastructure Design Checklist Health by Design Guidelines

#### 2.2 Cycling Network Implementation



CATEGORY		YORK REGION	REQUIRED
Active Transp	ortation	$\checkmark$	
RECOMMEN	DED CHA	RACTER AREAS	
VMC	Group	1 Group 2	Other
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
TYPICAL LA	ND USES		
Residential	Commer	cial Industrial	Institutional
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
EFFECTIVE	NESS	TYPICAL COST	POINTS
		\$\$\$	N/A

Description	<ul> <li>Cycling network connectivity can increase the cycling mode share and supports a seamless transportation network</li> <li>Where applicable, ensuring that the cycling network is connected through and/or around proposed developments facilitates easier access for cyclists between the site and key destinations</li> </ul>
Guidance	<ul> <li>Review the existing and planned local and regional cycling network and provide links to desirable network connections</li> <li>Distribute cycling connections evenly throughout blocks and local streets that are open to the public and facilitate active travel</li> <li>Where public sidewalks and multi-use pathways intersect with roads, provide traffic control devices to give priority to pedestrians and cyclists</li> <li>Explore opportunities to provide additional pedestrian and cycling facilities beyond the minimum requirements</li> <li>Design roads designated as part of the cycling network to have a target operating speed of no more than 40 km/h, or provide a separated cycling facility</li> </ul>
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location, design, and dimensions of existing and proposed active transportation infrastructure throughout the site and on the public road network</li> <li>The applicant shall submit a pedestrian and bicycle circulation plan, and provide enhancements where gaps are identified</li> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>

Monitoring and Reporting	<ul> <li>Provide photographic documentation of the provided infrastructure</li> </ul>		
ADDITIONAL GUID	ANCE		
VMC	<ul> <li>Work with the City to implement the priority cycling network which identifies a network of higher order cycling infrastructure</li> <li>Evaluate opportunities to implement additional traffic control devices and traffic calming measures</li> </ul>		
ADDITIONAL RESOURCES	City of Vaughan Pedestrian and Bicycle Master Plan (2020) York Region Transportation Master Plan CITE Site Design Guidelines for Sustainable Transportation Ottawa TDM Measures Checklist Ottawa TDM-Supportive Development Design and Infrastructure Checklist		

#### 2.3 Provide Long and Short-Term Bicycle Parking



8			YC	<b>RK REGION</b>	REQUIRED
X	Active Transp	ortation			
X	RECOMMEN	DED CH	ARAC	TER AREAS	
	VMC	Grou	p 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
8	TYPICAL LA		S		
2	Residential	Comme	ercial	Industrial	Institutional
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS
12				\$\$	1

Description	<ul> <li>Long-term, secure bike parking provides a safe place to store a bicycle</li> </ul>			
	• Short-term bike parking provides a convenient location for visitors to secure their bicycle typically near building entrances			
	• A horizontal bicycle parking space refers to securing a bicycle to the ground, or to the floor of a building or structure. A vertical bicycle parking space refers to securing a bicycle to a vertical surface such as the wall of a building			
	• Long-term bicycle parking is located within buildings and can present a challenge for cyclists to access the area. Allocating an entrance that is accessible to cyclists and separated from vehicular traffic increases the safety and convenience of cycling as an everyday mode of travel (see Measure 2.4).			
Guidance	City of Vaughan Comprehensive Zoning By-Law Section 6.5 outlines Bicycle Parking Space Requirements for all character areas in the City.			
	LEVEL 1 GUIDANCE:			
	<ul> <li>Provide the minimum amount of bicycle parking required by the City of Vaughan Comprehensive Zoning By-Law outlined below:</li> </ul>			
	6.5.1 General Provisions for Bicycle Parking Spaces			
	<ul> <li>A minimum bicycle parking space requirement shall not apply if the total gross floor area of all non-residential uses on a single lot is less than 500 m<sup>2</sup>.</li> </ul>			
	<ul> <li>Where a required bicycle parking space is wholly located within a building or structure, it shall be subject to the following requirements:</li> </ul>			
	<ul> <li>A required bicycle parking space shall have direct access from an interior communal area of a building or structure; and</li> </ul>			

- A required bicycle parking space located within the ground floor area of a building or structure shall have direct access to the exterior of that building or structure.
- The minimum width of an aisle providing access to a bicycle parking space shall be 1.75 m.

#### 6.5.2 Bicycle Parking Space Dimensions

Table 6-5: Minimum Horizontal Bicycle Parking Space Dimensions

Dimension	Minimum Requirement (m)
Length	1.8
Width	0.6
Vertical clearance from the floor	1.9

Table 6-6: Minimum Vertical Bicycle Parking Space Dimensions

Dimension	Minimum Requirement (m)
Length or vertical clearance	1.9
Width	0.6
Clearance from the wall	1.2

 For a stacked bicycle parking space, the minimum vertical dimension for each bicycle parking space shall be 1.2 m and the minimum vertical clearance from the floor shall be 2.4 m.

# 6.5.4 General Provisions for Long-term Bicycle Parking Spaces

- A long-term bicycle parking space shall be located wholly within the building where the principal use is located and for which the bicycle parking space is required.
- A long-term bicycle parking space required for a dwelling unit shall be required to be located within the following areas of a building:
  - Within the ground floor area;
  - On the storey above the ground floor area; or,
  - On the first storey located below grade.
- A required long-term bicycle parking space shall have direct access from the exterior of a building, and that access shall be located on the ground floor

# 6.5.5 General Provisions for Short-term Bicycle Parking Spaces

- A short-term bicycle parking space shall be required to be located in the following areas:
  - Wholly within a building in which the principal use is located and for which the short-term bicycle parking space is required; or,

<ul> <li>In any yard, provided the short-term bicycle parking</li> </ul>	
space is wholly open and unenclosed.	
• Where a short-term bicycle parking space is located in a ya	rd,
it shall be permitted to be located in a required yard, subjec	t to
the following:	
<ul> <li>A short-term bicycle parking space shall have a</li> </ul>	
minimum setback of 0.6 m from the nearest lot line.	
<ul> <li>A short-term bicycle parking space shall have a</li> </ul>	
minimum setback of 3.0 m from a parking area.	
Where a short-term bicycle parking space is located wholly	
within a building, the following additional requirements shall apply:	
<ul> <li>A short-term bicycle parking space located wholly</li> </ul>	
within a building shall be located within the ground	
floor area; and,	
<ul> <li>A short-term bicycle parking space shall have direc access from the exterior of a building.</li> </ul>	t
6.5.7 Gross Floor Area Exemptions for Bicycle Parking Spa	се
Calculations	
• For the purpose of calculating a required bicycle parking	
space for a dwelling unit, the gross floor area of a building	
shall not include the following:	
<ul> <li>A garage or parking structure;</li> </ul>	
<ul> <li>Storage rooms, washrooms, electrical, utility,</li> </ul>	
mechanical, and any ventilation rooms located belo	W
grade;	
<ul> <li>Elevator shafts; and</li> </ul>	
• Any exterior stairwells that serve as an emergency	
escape from a building or structure.	
LEVEL 2 GUIDANCE:	
Option 2:	
Provide bicycle parking in excess of the minimum	
requirements to negotiate a potential reduction in vehicle	
parking spaces (up to 20% in VMC and MU zones only, as	per
the Comprehensive Zoning By-Law)	
Option 3:	
Install overhead weather protection for short-term bicycle	
parking located outside	
Option 4:	
<ul> <li>Install e-bicycle charging infrastructure in the long-term bicy parking area</li> </ul>	cle
Option 5:	
<ul> <li>Complete at least two of the following: Option 2, Option 3,</li> </ul>	
Option 4	

Development Review	<ul> <li>All bicycle parking spaces are required to be clearly shown on the site plan and depicted with the minimum required dimensions and accompanied by a detail or specifications sheet for the types of spaces proposed. All outdoor bicycle parking spaces should be in the form of inverted U-shape racks secured to the ground.</li> <li>Indicate access routes on the site plan to reach the underground bicycle parking</li> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>	
Monitoring and Reporting	Provide photo evidence of provided bike parking	
ADDITIONAL GUID	ANCE	
VMC, GROUP 1 AND GROUP 2	<ul> <li>Section 6.5.3 – Minimum Bicycle Parking Space Rates of the CBZL outlines minimum bicycle parking rates depending on the land use</li> <li>The City of Vaughan Comprehensive Zoning By-Law Section 6.5.8 outlines Additional Bicycle Parking In-lieu of a Required Parking Space where in the VMC and MU zones only</li> <li>A reduction of one minimum required parking space shall be permitted for every five bicycle parking spaces that are</li> </ul>	
	provided in excess of the minimum requirement, provided the maximum reduction to the total required parking spaces does not exceed 20%	
ADDITIONAL RESOURCES	<u>City of Vaughan Comprehensive Zoning By-Law</u> <u>ULA-019 – Standard Bike Parking Drawings</u>	

# 2.4 Provide Separated Bicycle Access to Long-Term Bicycle Parking



	CATEGORY Active Transp	oortation	YC	ORK REGION	REQUIRED
Trans.	RECOMMEN	DED CH	ARAC	TER AREAS	
No.	VMC	Grou	р 1	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
1	TYPICAL LA		S		
1	Residential	Comme	ercial	Industrial	Institutional
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	ТҮРІ	CAL COST	POINTS
	••		De	sign Cost	1

Description	<ul> <li>Long-term bicycle parking is located within buildings and can present a challenge for cyclists to access the area</li> <li>Allocating an entrance that is accessible to cyclists and separated from vehicular traffic increases the safety and convenience of cycling as an everyday mode of travel</li> </ul>
Guidance	<ul> <li>Examples of separated entryways include a bicycle ramp leading to underground long-term bicycle parking or exterior door to bicycle room on ground floor</li> </ul>
	<ul> <li>The ramp must be compliant with the Accessibility for Ontarians with Disabilities Act (AODA) as an exterior path of travel</li> </ul>
	<ul> <li>Provide heating for exposed bicycle ramps to prevent accumulation of snow and ice</li> </ul>
	<ul> <li>Ramps should be a minimum of 3.0 meters wide to allow for bi-directional travel</li> </ul>
Development Review	<ul> <li>The separated bicycle access is required to be clearly shown on the site plan and depicted with the minimum required dimensions</li> <li>Include ramp width and grading on site plan</li> </ul>
Monitoring and Reporting	<ul> <li>Provide photo evidence of the separated bicycle access to long-term bicycle parking</li> </ul>

#### 2.5 Provide Showers and Change Rooms



	CATEGORY		YO	<b>RK REGIO</b>	N REQUIRED
	Active Transp	ortation			
	RECOMMEN	DED CH	ARAC <sup>-</sup>	TER AREAS	6
1	VMC	Grou	р 1	Group 2	Other
ų.	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
-	<b>TYPICAL LA</b>	ND USE	S		
	Residential	Comme	ercial	Industrial	Institutional
1		$\checkmark$		$\checkmark$	$\checkmark$
T	EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS
1				\$\$	1

Description	<ul> <li>End-of-trip amenities such as showers and change rooms enable commuters to choose active modes of travel (e.g. cycling) to their destination and prepare for the day.</li> <li>The lack of such facilities can be a major barrier to active commuting</li> </ul>			
Guidance	• City of Vaughan Comprehensive Zoning By-Law Section 6.5.6 outlines Minimum Change and Shower Facilities: All non-residential uses that are required to provide long-term bicycle parking, shall provide a change and shower facility in accordance with Table 6-9:			
	Required Number of Long- Term Bicycle Parking Spaces Spaces			
	Less than 5	None		
	5 to 60	1		
	61 to 120	2		
	121 to 180	3		
	181 or greater	4		
	<ul> <li>In addition, developments can design the shower and change facilities to be consistent with LEED requirements.</li> <li>Facilities should have direct connections or are located close to long-term bicycle parking areas</li> <li>In addition, developments can provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters</li> </ul>			
Development Review	• The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location, design, and dimensions of proposed shower and change room facilities			

	<ul> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>	
Monitoring and Reporting	Provide photo evidence of showers and change rooms built for active commuters	
ADDITIONAL GUID	ANCE	
ADDITIONAL	City of Vaughan Comprehensive Zoning By-Law	
RESOURCES	City of Ottawa TDM-Supportive Development Design and Infrastructure Checklist (2017)	

#### 2.6 Install Bike Repair Station



	CATEGORY		YORK	REGION	N REQUIRED
	Active Transp	ortation			
	RECOMMEN	DED CHA	RACTER		5
Z	VMC	Group	1 0	Group 2	Other
)	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	TYPICAL LAI	ND USES			
	Residential	Commer	cial In	dustrial	Institutional
	$\checkmark$	$\checkmark$			$\checkmark$
	EFFECTIVE	NESS	ΤΥΡΙCΑΙ	COST	POINTS
	••		\$3	6	2

Description	<ul> <li>Bike repair stations offer cycling commuters the necessary tools (e.g. air pump, allen keys, wrenches) to complete basic maintenance to ensure safe operation of their bicycle</li> <li>Common repair supplies (e.g. inner tube patches, chain cleaners/lubricant) should be made available at the repair station</li> </ul>
Guidance	<ul> <li>The applicant should install at least one permanent bicycle repair station adjacent to the long-term bicycle parking area with at least 50 long-term bicycle parking spaces</li> <li>The bicycle repair station should have an adequate workspace surrounding the repair station where the minimum width of the aisle providing access to bicycle repair station shall be at least 1.5 m and the workspace should be at least 4 m<sup>2</sup></li> </ul>
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location, design, and dimensions of proposed bike repair station</li> <li>A specification or detail sheet should be provided for the proposed repair station</li> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>
Monitoring and Reporting	Provide photo evidence of the bike repair station
ADDITIONAL GUIDA	
ADDITIONAL RESOURCES	TDM for Developments in Vancouver (ACT-05)

## 3 Transit

#### 3.1 Provide Transit Information Kiosks at Major Destinations

Plan Your Trip Here	A Crast
Plan Your The Pl	
· ·	
	1.1

CATEGORY Transit		YO	RK REGION	I REQUIRED
RECOMMEN	DED CH		TER AREAS	
VMC	Grou	р 1	Group 2	Other
$\checkmark$	$\checkmark$			
TYPICAL LA	ND USE	S		
Residential	Comm	ercial	Industrial	Institutional
$\checkmark$				$\checkmark$
EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS
•			\$\$	1

Description	<ul> <li>Information kiosks or booths distribute transit information to existing and future transit users, especially when located in high traffic areas that connect to major transit stations</li> <li>The kiosks or booths can feature permanent static or digital information boards and can include space for YRT or TTC staff to distribute information in person</li> </ul>			
Guidance	<ul> <li>Provide transit information at major destinations with high pedestrian traffic by incorporating displays or kiosks into design of common areas (e.g. lobby)</li> <li>Work with YRT, TTC, and GO Transit to provide transit information specific to the local context and ensure of the kiosk is in a high traffic area for transit users</li> </ul>			
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location of proposed transit kiosk</li> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>			
Monitoring and Reporting	Provide photo evidence of transit information kiosks			
ADDITIONAL GUIDANCE				
VMC	• Allocate space for a transit information kiosk in public areas that act as key connections to the VMC subway station (e.g. in an underground connection)			

# ADDITIONAL RESOURCES

<u>MTO Transit-Supportive Guidelines</u> discuss strategies to enhance the experience for transit users. Relevant guidance for developments is as follows:

- All printed transportation information (system and route maps, along with route schedules) should be available at terminals, in vehicles, at transit-accessible shopping malls, at municipal buildings, and in electronic format on the transit agency's website.
- Transit system information should include information on multimodal access, such as connections to other transit systems and other transportation modes such as ferries, airports, bike routes, and pedestrian paths.

#### 3.2 Provide Weather-Protected Waiting Areas



CATEGORY Transit	YC	RK REGION	REQUIRED			
RECOMMEN	DED CHARAC	TER AREAS				
VMC	Group 1	Group 2	Other			
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
TYPICAL LA	TYPICAL LAND USES					
Residential	Commercial	Industrial	Institutional			
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
EFFECTIVE	ENESS TYPI	CAL COST	POINTS			
••		\$\$	1			

Description	<ul> <li>Provides protection against the elements for transit users, enhancing their comfort and safety while waiting to board the transit vehicle</li> </ul>		
Guidance	<ul> <li>Provide weather-protected waiting areas adjacent to transit stops on private property if a transit shelter in the public right- of-way does not exist</li> </ul>		
	• Provide weather-protected waiting areas inside of buildings adjacent to transit stops / stations, utilizing building materials that enable transit users to see when the next transit vehicle is coming (e.g. glass)		
	<ul> <li>Ensure access routes and waiting area are accessible as per AODA standards</li> </ul>		
	<ul> <li>Provide real-time transit service information (refer to Section 3.4)</li> </ul>		
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location of proposed waiting area</li> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>		
Monitoring and Reporting	Provide photo evidence of weather-protected waiting areas		
ADDITIONAL GUIDANCE			
ADDITIONAL RESOURCES	The Metrolinx Mobility Hub Guidelines for the Greater Toronto and Hamilton Area (2011) includes design guidelines around major transit hubs. Weather-protected shelters are discussed as ways to provide a high quality and aesthetically pleasing public realm, with examples provided.		

<u>MTO Transit-Supportive Guidelines</u> discuss strategies to enhance accessibility and user comfort for transit users. Multiple examples of well-designed weather-protected shelters include:

- Design transit shelters to be comfortable and highly visible with transparent sides, seating with armrests to support passengers with mobility issues and lighting, and accommodate a range of users
- Provide all transit shelters with garbage and recycling receptacles for waiting users

#### 3.3 Provide Real-Time Transit Information



	CATEGORY Transit		YC	ORK REGION	N REQUIRED
9	RECOMMEN VMC	DED CH Grou		TER AREAS Group 2	Other
	✓ TYPICAL LA	√ ND USE	S	$\checkmark$	$\checkmark$
	Residential ✓	Comm √	ercial	Industrial √	Institutional √
		NESS	ТҮРІ	CAL COST \$	POINTS 1

Description	• Real-time transit information enables users to understand departure and waiting times, allowing them to plan their trips accordingly, enhancing the overall transit experience
Guidance	<ul> <li>Provide real-time transit information on displays in prominent locations (e.g. entrances, lobbies, elevators) in the proposed development</li> </ul>
	• The screens should include real-time information regarding nearby transit arrivals and departures, walking times to the key destinations, availability of carshare or bikeshare vehicles (if available), and weather
	<ul> <li>Applicants can develop their own real-time transit service information screen using GTFS (General Transit Feed Specification) data available to the public or purchase a screen from a vendor</li> </ul>
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location of proposed transit information kiosks</li> </ul>
	<ul> <li>City of Vaughan staff shall review the proposed infrastructure and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>
Monitoring and Reporting	Provide photo evidence of real-time transit information at site
ADDITIONAL GUID	ANCE
ADDITIONAL RESOURCES	TDM for Developments in Vancouver (SUP-02)

#### 3.4 Launch Shuttle Services



CATEGORY Transit		YORK REGION	REQUIRED
RECOMMEN	DED CHAR	ACTER AREAS	
VMC	Group 1	Group 2	Other
	$\checkmark$	$\checkmark$	$\checkmark$
TYPICAL LA	ND USES		
Residential	Commercia	al Industrial	Institutional
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
EFFECTIVE	NESS T	PICAL COST	POINTS
		\$\$\$	4 to 14

Description	<ul> <li>Shuttle services connecting residents and employees to major transit stations or stops enables convenient access to rapid transit options</li> <li>Shuttles service areas are commonly areas that are not easily accessible by transit and are not intended to replicate transit services</li> <li>Shuttle services are typically offered when one of the following conditions is met:         <ul> <li>Proposed development generates significant demand for a shuttle service (e.g. large residential development located outside of walking distance from a major transit station)</li> <li>Walking distances to nearest transit stop/commercial centre are significant (e.g. industrial business park);</li> <li>Travel patterns are not aligned with transit routes; or</li> <li>Employee shift times are outside of transit service</li> </ul> </li> </ul>	
Guidance	<ul> <li>hours.</li> <li>Provide shuttle services free of charge to residents and/or employees where there is significant demand for a shuttle service</li> <li>Post shuttle schedules, frequency, and hours at shuttle stops <b>Option 1:</b></li> <li>Offer peak-hour shuttle service to major transit stations <b>Option 2:</b></li> <li>Offer 15-minute or better service during peak hours, and 30-minute or better service during off-peak hours to major transit stations</li> <li><b>Option 3:</b></li> </ul>	

	<ul> <li>Offer 7.5-minute or better service during peak hours, and 30- minute or better service during off-peak hours to major transit stations</li> </ul>		
Development Review	• The applicant shall submit conceptual service plan memorandum describing the hours of operation, stop location(s), routes, headways, marketing activities, and service partners (e.g. pointA) as a condition of the applicable development agreement and/or through a letter of credit.		
	<ul> <li>The applicant shall submit a copy of the operating agreement with the shuttle service provider as part of the monitoring program and follow-up report.</li> </ul>		
	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location of proposed pick-up and drop-off locations of the shuttle service</li> </ul>		
	• City of Vaughan staff shall review the proposed locations and conceptual service plan and provide a recommendation for either approval or modifications to meet City requirements		
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals, highlighting number of shuttle service users</li> </ul>		
ADDITIONAL GUIDANCE			
ADDITIONAL RESOURCES	pointA operates shuttle programs throughout the City of Vaughan and can assist applicants with determining the feasibility of implementing a shuttle service		

## 4 Parking Management

#### 4.1 Provide Dedicated Carshare Vehicle Spaces

R LA	CATEGORY Parking		YORK	REGION	REQUIRED
DES CAR	RECOMMEN	DED CHA	RACTER	AREAS	
Comi-services	VMC	Group	1 G	roup 2	Other
munityCREE	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
arshare.ca	TYPICAL LA	ND USES			
	Residential	Commer	cial Ind	dustrial	Institutional
and a local state	$\checkmark$				$\checkmark$
100	EFFECTIVE	NESS	TYPICAL	COST	POINTS
	•••		Design	Cost	2

Description	<ul> <li>Developer partners with a carshare provider and subsidizes a carshare operation on-site as needed, including provision of dedicated spaces</li> <li>Carshare vehicles are typically self-service, pay-per-use vehicles available only to registered members</li> <li>Carshare vehicles reduce the need to store private vehicles for a long period, as a single vehicle can be shared between multiple users, resulting in lower vehicle ownership and reduced parking demand</li> </ul>	
Guidance	<ul> <li>Option 1</li> <li>The Vaughan Comprehensive Zoning By-law identifies carshare parking reductions: <ul> <li>For an apartment dwelling in a Residential, Vaughan Metropolitan Centre, or Mixed-Use Zone, the maximum reduction to the total minimum required parking spaces shall be four for each dedicated carshare parking space</li> <li>For an apartment dwelling in a Residential, Vaughan Metropolitan Centre, or Mixed-Use Zone, the maximum number of car-share parking spaces shall be calculated as the total number of dwelling units divided by sixty, rounded to the nearest whole number</li> </ul> </li> <li>Applicants should enter into an agreement with a carshare provider and the City and financially commit to joining the program prior as a condition of approval</li> </ul>	
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable</li> </ul>	

	document that shows the location of proposed car share parking spaces		
	<ul> <li>The applicant shall submit the agreement with Carshare provider as a condition of the applicable development agreement and/or through a letter of credit.</li> <li>City of Vaughan staff shall review the proposed locations and service agreement and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>		
Monitoring and Reporting	Submit completed monitoring survey results to the City of Vaughan at the required intervals, highlighting number of car share users, as well as photo evidence of carshare spaces and vehicles		
ADDITIONAL GUID	ANCE		
ADDITIONAL RESOURCES	<ul> <li>Typical agreements between developers and providers are:</li> <li>Private access (less common): Parking space and car dedicated to the building with no public access. The developer must ensure profitability for the first two years by either subsidizing vehicle operations or working with the carshare provider to promote the service.</li> <li>Public access (revenue guaranteed): Parking space and car provided within the building with public access (usually within commercial parking space). Like the private access agreement, the applicant is typically required to ensure profitability by subsidizing operations.</li> <li>Public access (not revenue guarantee): Similar to the revenue guaranteed model, however the applicant is not required to subsidize or to ensure profitability (e.g. subsidize operations), but the condominium board or appropriate governing body is required to write into the bylaws that the parking space will remain dedicated to carshare and will be publicly accessible and must be registered on title.</li> <li>The minimum guaranteed revenue period for utilizing a carshare space varies across jurisdictions, but is typically for between two to three years.</li> </ul>		

Z

#### 4.2 Provide Preferential Carpool Parking Spaces



Description	<ul> <li>Provides an incentive to ridesharing by providing reserved spaces to carpool vehicles and reduces parking demand</li> </ul>			
Guidance	<ul> <li>Option 1:</li> <li>No preferential carpool parking spaces provided</li> <li>Option 2:</li> <li>Provide carpool parking spaces in desirable locations such as close to building entrances, in accordance with the Comprehensive Zoning By-Law</li> <li>Use signage and pavement markings to indicate designated carpool parking spaces</li> <li>Carpoolers may be required to register to be eligible for preferential spaces. Unless parking facilities are attended, a</li> </ul>			
	transportation or parking coordinator would need to be designated to monitor carpoolers (may be monitored by joining the Smart Commute North Toronto-Vaughan program)			
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, pavement marking &amp; signage plan, or other applicable document that shows the location of proposed carpool parking spaces</li> <li>City of Vaughan staff shall review the proposed locations and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>			
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals, highlighting number of car pool users where feasible (e.g. parking counts)</li> <li>Provide photo evidence of carpool parking spaces in use</li> </ul>			
ADDITIONAL GUID	ANCE			

•

#### VMC, GROUP 1, GROUP 2

- The Vaughan Comprehensive Zoning By-law states:
  - For an employment use in the VMC, MU, and EM1 Zones, a reduction of two minimum required parking spaces for every dedicated car-pool parking space shall be permitted to a maximum of 5 parking spaces or 5% of the total minimum required parking spaces for non-residential uses, whichever is less

4.3	Unbundle Parking from Unit Cost
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	CATEGORY Parking		YO	RK REGION	REQUIRED
il in the second second					
Wite-	VMC	Grou	рт	Group 2	Other
	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
	TYPICAL LA		S		
	Residential	Comme	ercial	Industrial	Institutional
di la	$\checkmark$				
	EFFECTIVE	NESS	TYPI	CAL COST	POINTS
1000			Des	sign Cost	5

Description	<ul> <li>Selling or leasing parking spaces separately from the sale of each residential unit can lead to lower rates of vehicle ownership and be used as a selling feature in an area well-served area by transit and/or cycling infrastructure</li> <li>Unbundling parking supports a "shared economy" where vehicles are shared by multiple users such as a carshare service</li> </ul>				
Guidance	Option 1:				
	Unbundle the cost of parking from the cost of the unit				
	Review additional parking reductions on a case-by-case basis     with City staff by implementing additional TDM initiatives				
	Option 2:				
	• N/A				
Development Review	• The applicant shall submit a letter of undertaking or include unbundled parking in the applicable development agreement				
	<ul> <li>City of Vaughan staff shall review the service agreement and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>				
Monitoring and Reporting	• N/A				

#### 4.4 Implement Employee Parking Cash Out Program



	CATEGORY Parking		YO	RK REGION	
	RECOMMEN	DED CH	ARAC	<b>TR AREAS</b>	
2	VMC	Grou	р 1	Group 2	Other
Z	$\checkmark$	$\checkmark$			
123	TYPICAL LA	ND USE	S		
	Residential	Comme	ercial	Industrial	Institutional
		$\checkmark$			$\checkmark$
	EFFECTIVE	NESS	ΤΥΡΙ	CAL COST	POINTS
				\$\$\$	2

Description	<ul> <li>Encourages employers to provide employees with a choice to keep a parking space at work, or to accept a cash payment or other reward and in exchange for giving up a designated parking space and committing to choosing a sustainable mode of travel</li> <li>Effective at managing a limited amount of parking supply and does not force employees to stop driving or give up free parking, but those who do are rewarded financially</li> </ul>			
Guidance	Option 1:			
	<ul> <li>Working with a local transportation management association (e.g. Smart Commute North Toronto-Vaughan), the applicant can establish an Employee Parking Cash-Out program where options for compensation, funded by employers, can include:         <ul> <li>Transit subsidy of at least \$30 per month</li> <li>Carpool/Vanpool subsidy of at least \$30 per month</li> <li>Cash-in-lieu of free parking worth at least \$30 per month</li> <li>Incentives such as vacation time</li> <li>Shuttles from transit stations, either employer- provided or through a local TMA or similar service</li> </ul> </li> </ul>			
	provider Option 2:			
	• N/A			
Development Review	<ul> <li>The applicant shall submit a conceptual cash-out program memorandum describing the program implementation as a condition of the applicable development agreement and/or through a letter of credit.</li> <li>City of Vaughan staff shall review the memorandum and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>			

Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals, highlighting number of cash-out program participants</li> </ul>
ADDITIONAL GUID	ANCE
ADDITIONAL RESOURCES	Best Workplaces for Commuters – Parking Cash Out: Implementing Commuter Benefits as one of the Nation's Best Workplaces for Commuters

#### 4.5 Implement Paid Parking



CATEGORY Parking		YORK REGION	REQUIRED
VMC	Group 1	Group 2	Other
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
<b>TYPICAL LA</b>	ND USES		
Residential	Commercia	al Industrial	Institutional
	$\checkmark$	$\checkmark$	
EFFECTIVE	NESS T	YPICAL COST	POINTS
		\$\$\$	0 to 2

Description	<ul> <li>Charging for parking (an amount at least as much as the cost of transit) can encourage and influence people to use sustainable modes of transportation</li> <li>Paid parking can help generate revenue to maintain parking spots while incentivizing travellers to walk, cycle or take transit to get to key destinations</li> <li>Parking pricing should reflect both the value to the end user as well as the cost to provide parking</li> </ul>
Guidance	<ul> <li>Option 1:</li> <li>Parking is free / pre-paid for users</li> <li>Option 2:</li> <li>Users pay for parking, multiple plans available</li> <li>Option 3:</li> <li>Longest paid parking pass available is 1 day</li> </ul>
Development Review	<ul> <li>The applicant shall submit a site plan, site plan drawing, concept plan, engineering submission, or other applicable document that shows the location of proposed paid parking spaces</li> <li>The applicant shall submit a conceptual paid parking program memorandum describing the program implementation and proposed pricing as a condition of the applicable development agreement and/or through a letter of credit.</li> <li>City of Vaughan staff shall review the memorandum and plans and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan at the required intervals, highlighting number of paid parking users</li> </ul>
ADDITIONAL GUIDA	ANCE

#### ADDITIONAL GUIDANCE

- The applicant should consider implementing a market-based pricing structure to reflect the value of parking based on proxy sites or industry studies
- Working with City staff, reduce the minimum parking requirements for the proposed development on the condition of implementing a paid parking system on a case-by-case basis
- Where the developer becomes the building operator, consider implementing a "parking cash-out" program (see TDM Initiative 4.4)

#### 4.6 Implement Pick-up and Drop-off Zones



CATEGO Parking	RY	YORK REGI	ON REQUIRED
RECOMM		ARACTER ARE	AS
VMC	Group	o 1 Group	2 Other
✓	$\checkmark$	$\checkmark$	$\checkmark$
TYPICAL	LAND USES	5	
Resident	ial Comme	ercial Industri	al Institutional
✓	$\checkmark$	$\checkmark$	$\checkmark$
EFFEC1	<b>IVENESS</b>	TYPICAL COS	T POINTS
•		Design cost	1

Description	• Designated pick-up and drop-off zones enable convenient locations for passenger loading and requires special consideration to manage potential conflicts between vehicle and pedestrian movements
Guidance	<ul> <li>Provide on-site pick-up and drop-off zones that are fully accessible at-grade to facilitate short-term pick-up and drop-off activities</li> <li>Provide adequate space so queueing will not spillback onto driveways or public roads or disrupt traffic flow on site</li> <li>Use design interventions (e.g. curbs, islands), pavement markings and textures to delineate pedestrian facilities and pick-up and drop-off zones</li> <li>Where possible, passenger pick-up and drop-off zones and</li> </ul>
	loading zones should not conflict with pedestrian facilities by locating the zones at an alternate accessible building entrance
Development Review	• The applicant shall submit a site plan, site plan drawing, concept plan, pavement marking & signage plan, or other applicable document that shows the location, design, pavement markings, and dimensions of pick-up and drop-off and loading zones
	<ul> <li>The applicant shall submit a swept path diagram to ensure that vehicle circulation is not interrupted</li> </ul>
	<ul> <li>City of Vaughan staff shall review the memorandum and plans and provide a recommendation for either approval or modifications to meet City requirements</li> </ul>
Monitoring and Reporting	Submit photo evidence of the pick-up and drop-off zones
ADDITIONAL GUIDA	ANCE

ADDITIONAL RESOURCES City of Hamilton TDM Guidelines Metrolinx Mobility Hub Guidelines (Section 1.6) BART Multimodal Access Design Guidelines (Figure 8/9)

### 5 Other TDM Initiatives

#### 5.1 Install Wayfinding & Signage



CATEGORY Other TDM Initiatives			RK REGION	I REQUIRED		
RECOMMEN	DED CHA	ARACT	ER AREAS			
VMC	Group	1	Group 2	Other		
$\checkmark$	/ /		$\checkmark$	$\checkmark$		
TYPICAL LA	TYPICAL LAND USES					
Residential	Comme	rcial	Industrial	Institutional		
$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		
EFFECTIVE ••	NESS	ΤΥΡΙΟ	SAL COST	POINTS 1		

Description	<ul> <li>Assists people that are walking or cycling to navigate and locate transportation services, infrastructure, and key destinations in the area</li> </ul>
Guidance	• The applicant shall provide multi-modal wayfinding signage in key locations so that the residents, employees, and visitors are directed to transportation services and infrastructure such as but not limited to transit, bicycle parking and amenities, taxi stands, shuttle/carpool pick-up/drop-off locations, and key destinations
	<ul> <li>Wayfinding signage shall be implemented in accordance with York Region's Sustainable Mobility Wayfinding Guidelines</li> </ul>
	<ul> <li>Wayfinding signage should be located at significant locations, including entrances/exits), identifying the direction, distance, and estimated travel time to key destinations at regular intervals along routes</li> </ul>
Development Review	• The applicant shall submit a pavement marking & signage plan that identifies locations for the proposed signage, pavement markings
Monitoring and Reporting	<ul> <li>Provide photo evidence of wayfinding and signage</li> </ul>
ADDITIONAL GUID	ANCE
ADDITIONAL RESOURCES	York Region Sustainable Mobility Wayfinding Guidelines City of Mississauga's Cycling Master Plan (2010) Hamilton Pedestrian Mobility Plan

#### 5.2 Offer Micromobility Services



	CATEGORY Other TDM In	itiative	YO	RK REGION	I REQUIRED
Ten series	RECOMMEN VMC √*	DED CH Grou		<b>FER AREAS</b> Group 2	Other
	TYPICAL LA Residential ✓		-	Industrial	Institutional √
		NESS	TYPI	CAL COST \$\$\$	POINTS 1

Description	• Provide micromobility options such as bike share or kick-style e-scooters to residents, tenants/employees, students and community members
	• Bike share and kick-style e-scooters are services where users can rent a bicycle or e-scooter on a short-term basis by subscribing to a membership (e.g. monthly, yearly, or pay-as-you-go)
	<ul> <li>Micromobility trips are often intended to provide convenient travel options for all types of trips including commuting to work, recreation, errands, or connecting to transit</li> </ul>
	<ul> <li>* While e-scooters are not yet supported in Vaughan, this section is available for reference should the City opt into the e- scooter program</li> </ul>
Guidance	<ul> <li>Partner with the City and micromobility service providers to launch a micromobility program in the City of Vaughan</li> </ul>
	<ul> <li>Designate an area for future bike share or e-scooter stations that is near the entrance, in a covered location, and is within walking distance to key destinations</li> </ul>
	• Support the launch of a micromobility service by subsidizing the launch of the service or provide memberships to residents, and employees in the service area
Development Review	<ul> <li>The applicant shall submit the micromobility service agreement or documentation as a condition of the applicable development agreement and/or through a letter of credit.</li> <li>Show the location of the micromobility station on a plan</li> </ul>
Monitoring and Reporting	<ul> <li>Submit any available usage data to the City of Vaughan to determine the success of the micromobility program</li> </ul>
	<ul> <li>Submit completed monitoring survey results to the City of Vaughan, ensuring micromobility is listed as a travel option</li> </ul>

	Provide photo evidence of micromobility stations		
ADDITIONAL GUIDANCE			
ADDITIONAL RESOURCES	Vancouver's TDM Guidelines (ACT-08) encourages property owners to provide a fleet of shared bicycles for residents/employees and/or visitors and provide parking beyond the amount required by the Parking By-law. The purpose is to limit car-dependency of building users as the bicycles would only facilitate two-way trips.		

#### 5.3 Support the YRT Mobility On-Request Service



CATEGORY YORK REGION REQUIRED Other TDM Initiatives **RECOMMENDED CHARACTER AREAS** VMC Group 1 Group 2 Other  $\checkmark$  $\checkmark$  $\checkmark$  $\checkmark$ **TYPICAL LAND USES** Residential Commercial Industrial Institutional  $\checkmark$  $\checkmark$  $\checkmark$  $\checkmark$ EFFECTIVENESS TYPICAL COST **POINTS** \$ 1

Description	<ul> <li>Mobility On-Request (MOR) is a ride-sharing service managed by York Region Transit (YRT) that enables residents to request on-demand transit at designated bus stops</li> <li>In Vaughan, there are currently three MOR service areas: MOR Vellore Local, MOR Woodbridge, and MOR 65+ Service.</li> <li>MOR 65+ Service is available for all residents in York Region that are 65+ years old. Trips can be booked by calling on the same day of travel at least 60 minutes ahead of the scheduled pick up time and will take residents anywhere within 5 km of their home.</li> </ul>
Guidance	<ul> <li>Applicants shall include promotional information about the MOR service in addition to the transit information distributed as part of their Communication Strategy (TDM Initiative 1.2)</li> <li>Where applicable, the applicant shall work with YRT to determine if the subject site is located in an area that is a candidate to launch a new MOR service (e.g. site is located in a desirable area for a MOR service)</li> </ul>
Development Review	• The applicant shall submit proof of correspondence with YRT to determine if a new MOR service is feasible
Monitoring and Reporting	• N/A
ADDITIONAL GUIDA	
ADDITIONAL RESOURCES	YRT Mobility-on-Request Website

#### 5.4 Provide Ongoing Support for Working Remotely



	CATEGORY		YORK REGIO	ON REQUIRED
	Other TDM In	itiatives		
ſſ.	RECOMMEN	DED CHA		AS
	VMC	Group	1 Group 2	2 Other
	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
J	TYPICAL LA	ND USES		
-	Residential	Commer	cial Industria	Institutional
1		$\checkmark$	$\checkmark$	$\checkmark$
	FFFECTIVE	NESS	TYPICAL COS	
	••		\$	1 to 4

Description	<ul> <li>Working remotely (i.e. teleworking or working from home) is a common practice in many workplaces.</li> </ul>
	• Working remotely reduces commuting activity and can lead to significant cost savings through workspace sharing, increased productivity, and time savings in addition to many environmental benefits of removing the commute to work altogether
Guidance	• Applicants should ensure that the property management companies or employers join the Smart Commute North Toronto-Vaughan program to provide support for employees and organizations that are interested in working remotely
	<ul> <li>Applicants should take increasing rates of remote working into consideration by offering amenities such as coworking spaces in residential developments</li> </ul>
	<ul> <li>For non-residential uses, the Smart Commute program provides employees with the remote work resources and support</li> </ul>
Development Review	• The applicant shall submit proof of correspondence to join the Smart Commute program as a paying member as a condition of the applicable development agreement and/or through a letter of credit
	<ul> <li>Alternatively, the applicant shall submit a letter from a future tenant than will offer remote work options</li> </ul>
Monitoring and Reporting	<ul> <li>Submit completed monitoring survey results to the City of Vaughan</li> </ul>
ADDITIONAL GUIDA	ANCE
ADDITIONAL RESOURCES	Telework Management and Program Guides (Arlington, VA)

#### 5.5 pointA Transportation Management Association Membership

pointA		CATEGORYYORK REGION REQUIREDOther TDM Initiatives✓			
		RECOMMEN VMC	<b>DED CHARA</b> Group 1	CTER AREAS Group 2	Other
		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
		TYPICAL LA Residential		Industrial	Institutional
				PICAL COST Varies	POINTS 2
Description	<ul> <li>pointA</li> </ul>	is a Transport	ation Manage	ment Associatio	n (TMA)
	that pre- encour Smart • Service planne and ca	ovides progran rage sustainab Commute Nort es include carp er tool, guarante impaigns, clinic	ns and tools to le modes of tr th Toronto-Va bool matching eed ride home cs and worksh	o workplaces to ansportation thr ughan program and multi-moda programs, ann ops, and profes ansportation stra	help ough the I trip ual events sional
Guidance	are rec Vaugh • Reside	quired to join th an program off ential developm	e Smart Com ered by point/ nents should jo	more than 50 e mute North Torc A bin the York Reg n in TDM Initiativ	pinto-
Development Review	Smart of the a	Commute prog	ram as a payi	correspondence ng member as a ement and/or th	a condition
Monitoring and Reporting		•	•	annual Smart Co an at the require	
ADDITIONAL GUIDA	ANCE				
ADDITIONAL RESOURCES	pointA Sm	art Commute S	Services		

#### 5.6 Provide a Vanpool Program



	CATEGORY		YO	<b>RK REGION</b>	
	Other TDM In	itiatives			
_	RECOMMEN	DED CH	ARAC	TER AREAS	
	VMC	Grou	р 1	Group 2	Other
OL	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
-	<b>TYPICAL LA</b>	ND USE	S		
K	Residential	Comme	ercial	Industrial	Institutional
		$\checkmark$		$\checkmark$	$\checkmark$
	EFFECTIVE	NESS	TYPI	CAL COST	POINTS
		)		\$\$\$	2

Description	<ul> <li>Vanpooling is a common, long-distance commute option for employees headed to the same work site, typically consisting of at least 5 commuters</li> </ul>
	• Vanpools are typically organized by an employer. The employer purchases/leases a vehicle (or utilizes an existing fleet vehicle) for employees to travel to and from work. Routes are organized with employees that live in proximity to one another or on the same route to the worksite. Employees are responsible for the cost of gas.
	<ul> <li>Vanpool members typically pay a fee which covers van costs such as gas, insurance and other monthly costs on the vehicle</li> </ul>
Guidance	<ul> <li>The applicant shall purchase or lease vans for employee use and pay for mileage and maintenance of the vehicles</li> <li>Work with organizations like pointA to effectively market and launch a vanpool program</li> </ul>
Development Review	<ul> <li>The applicant shall submit proof of correspondence to join the Smart Commute program as a paying member and launch a vanpool program as a condition of the applicable development agreement and/or through a letter of credit.</li> </ul>
Monitoring and Reporting	<ul> <li>Submit completed monitoring and annual Smart Commute survey results to the City of Vaughan at the required intervals</li> </ul>
ADDITIONAL GUIDA	ANCE
ADDITIONAL RESOURCES	Commute With Enterprise - Vanpool Arlington Transportation Partners – Start a Vanpool

#### 5.7 Implement Innovative TDM Initiative



	CATEGORY		YORK REGION REQUIRED	
	Other TDM In	itiatives		
	RECOMMEN	DED CHARA	CTER AREAS	
=£_& <b>`</b>	VMC	Group 1	Group 2	Other
s 🏘 📥	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	TYPICAL LA	ND USES		
2	Residential	Commercial	Industrial	Institutional
	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	EFFECTIVE TBD	NESS TYP	PICAL COST Varies	POINTS 0 to 5

Description	• City staff may consider innovative TDM initiatives proposed by the applicant, with acceptable rationale, assessment, and ongoing monitoring of success to implement			
Guidance	<ul> <li>Examples of acceptable measures may include, but are not limited to:</li> </ul>			
	<ul> <li>Innovative trip planning resources</li> </ul>			
	<ul> <li>Accommodation of bicycle parking for non-standard or different types of bicycles (cargo, recumbent, trailers, etc.)</li> </ul>			
	<ul> <li>Subsidies for sustainable transportation use(s) not previously defined</li> </ul>			
	<ul> <li>Use of electric shared vehicles where shared vehicles are provided</li> </ul>			
	<ul> <li>Bicycle valet services</li> </ul>			
	<ul> <li>On-site child-care</li> </ul>			
	<ul> <li>Delivery services</li> </ul>			
	<ul> <li>TDM-supportive amenities such as a co-working space</li> </ul>			
	<ul> <li>Implementing a Mobility-as-a-Service platform</li> </ul>			
Development Review	City staff will review the proposed Innovative TDM Initiative			
Monitoring and Reporting	<ul> <li>Ensure appropriate monitoring activities such as surveys, sensors, or count data is submitted to the City of Vaughan at the required intervals</li> </ul>			
ADDITIONAL GUIDA	ANCE			
ADDITIONAL RESOURCES	Vancouver's TDM Guidelines (OTH-01) encourages applicants to propose implementing innovative strategies			

# Appendix B: Cost and Implementation Table

IBI GROUP FINAL GUIDELINE CITY OF VAUGHAN TRANSPORTATION DEMAND MANAGEMENT DEVELOPMENT GUIDELINE Prepared for City of Vaughan

ТОМ	t 5-1: Cost and Responsibility Table Initiative	Typical Cost	
	gory 1: Promotion / Monitoring	rypicaroust	
1.1	Provide Transit Incentives		
1.2	Communication Strategy		
1.3	Provide Financial Incentives for Sustainable Transportation		
1.4	Awards / Recognition Program		
1.5	Cycling Skills Courses		
1.6	Provide Individualized Marketing Programs & Travel Plans		
1.7	Guaranteed Ride Home Program (i.e. Emergency Ride Home)		
Cate	gory 2: Active Transportation		
2.1	Pedestrian Network Implementation		
2.2	Cycling Network Implementation		
2.3	Provide Long and Short-Term Bicycle Parking		
2.4	Provide Separated Bicycle Access to Long-Term Bicycle Parking		
2.5	Provide Shower and Change Room Facilities		
2.6	Install Bike Repair Station		
Cate	gory 3: Transit		
3.1	Provide Transit Information Kiosks at Major Destinations		
3.2	Provide Weather-Protected Waiting Areas		
3.3	Provide Real-Time Transit Information		
3.4	Launch Shuttle Services		
Cate	gory 4: Parking		
4.1	Provide Dedicated Carshare Vehicle Spaces		
4.2	Provide Preferential Carpool Parking Spaces		
4.3	Unbundle Parking from Unit Cost		
4.4	Implement Employee Parking Cash Out Program		
4.5	Implement Paid Parking		
4.6	Implement Pick-Up and Drop-Off Zones		
Cate	gory 5: Other TDM Initiatives		
5.1	Install Wayfinding Signage		
5.2	Offer Micromobility Services*		
5.3	Support the YRT Mobility On-Request Service		
5.4	Provide Ongoing Support for Working Remotely		
5.5	Provide pointA Transportation Management Association Membership		
5.6	Provide a Vanpool Program		
5.7	Implement Innovative TDM Initiative		

\* Coordinate with City Staff

#### Example:

Responsibility	/		
			-
			-
			_
			_
			_
			-
			-
		 	_
			_
			_
			_

Applicant

# Appendix C: Sample Monitoring Survey

#### **CITY OF VAUGHAN ANNUAL TRAVEL SURVEY**

# 1. How do you typically travel daily? Please select the mode(s) you have used over the past year. Check all that apply.

Drive alone	
Carpool/vanpool/drop off	
Transit	
Bicycle	
Walk	
Telework	
Other	

## 2. Of the modes selected above, how do you travel most often? Select one.

Drive alone	
Carpool/vanpool/drop off	
Transit	
Bicycle	
Walk	
Telework	
Other	

## 3. Overall, how satisfied or dissatisfied are you with your travel experience?

Very Satisfied	
Satisfied	
Neither Satisfied nor Dissatisfied	
Dissatisfied	
Very Dissatisfied	

# 4. When you take transit, which transit system do you use? Please select the system you use for the greatest distance.

York Region Transit (YRT)	
GO Transit	
Toronto Transit Commission (TTC)	
N/A, do not use transit	
Other	

# 5. If you take transit, please indicate how you travel to your transit stop/station.

Drive alone	
Carpool/vanpool/drop off	
Transit	
Bicycle	
Walk	
Taxi/Uber	
GO Bus, do not travel to GO Station	
Other	

# 6. Which modes of transportation, if any, are you willing to use to travel around?

Drive alone	
Carpool/vanpool/drop off	
Transit	
Bicycle	
Walk	
Taxi/Uber	
None of the above	
Bicycle Walk Taxi/Uber	

#### 7. If you tried a new mode to get around in the last year, please indicate the reason.

last year, please indicate the reason.	
I did not try a new mode in the last year.	
Received information or an incentive	
Participated in a Smart Commute	
Campaign (e.g. Bike Month)	
Changed work or home location	
New infrastructure at my workplace	
New infrastructure around my workplace	
Discovered a new commuting option	
Looking to save time	
Looking to save money	
Concern for the environment	
Exercise or health benefits	

Other \_\_\_\_\_

# 7. What sustainable transportation initiatives or infrastructure have you used since moving to $\frac{x}{2}$ ?

TDM Initiative #1	
TDM Initiative #2	
TDM Initiative #3	
TDM Initiative #4	
TDM Initiative #5	

9. What is your Home and Work/School postal code?

Home

Work/School

13. Please leave your contact information if you'd like a chance to win a contest prize.

Name

Email: \_\_\_\_\_

Phone:

Your feedback is important to us! Please use the space below to provide any comments you may have about your travel experience.