City of Kingston
Information Report to Environment, Infrastructure & Transportation Policies Committee
Report Number EITP-25-005

To:	**Chair and Members of the Environment, Infrastructure & Transportation Policies Committee**
From:	**Ian Semple, Acting Commissioner, Transportation & Infrastructure Services**
Resource Staff:	**None**
Date of Meeting:	**February 11, 2025**
Subject:	**Micromobility Regulation Review**

Council Strategic Plan Alignment:

Theme: 3. Build an Active and Connected Community

Goal: 3.3 Improve public transit and active transportation options.

Executive Summary:

This information report provides an overview of micromobility in Kingston and identifies trends and best practices found in other municipalities to help guide how the City could regulate this form of transportation.

Micromobility includes a range of small, low speed, relatively lightweight, human or electric-powered forms of travel. It includes traditional active transportation modes of travel such as bicycles, skateboards and roller blades, as well as newer technology including e-bikes and e-scooters. Micromobility has seen rapid growth across North America in both the use and breadth of options available. Where these mobility options replace motor vehicle trips, benefits can include reductions in greenhouse gas emissions, improved affordability, reduced traffic congestion, and expanded mobility for short and long trips. However, regulatory gaps exist, requiring individual municipalities to establish how and where micromobility devices may be used. Gaps in federal and provincial frameworks, the evolving variety of devices and new technology, and pending changes to the Highway Traffic Act have created challenges in ensuring clarity and consistency for users and enforcement.

The Province is currently piloting regulatory frameworks for several micromobility modes, including e-scooters and cargo e-bikes, with municipalities required to pass enabling by-laws to participate. To date, Kingston has not yet opted into any of these pilots. In Kingston, existing by-laws regulate some micromobility devices but do not address all types, particularly newer or emerging ones.

This review is intended as a first step in supporting Council's Strategic Priorities, including the implementation of the City's Climate Leadership Plan and the improvement of public transit and active transportation options. As a next step, staff will be developing recommendations to promote safe, sustainable, and inclusive micromobility use while ensuring clarity and safety for all users.

Recommendation:

This report is for information only.

Authorizing Signatures:

ORIGINAL SIGNED BY COMMISSIONER

Ian Semple, Acting
Commissioner, Transportation &
Infrastructure Services

p.p. ORIGINAL SIGNED BY COMMISSIONER

Lanie Hurdle, Chief
Administrative Officer

Consultation with the following Members of the Corporate Management Team:

Paige Agnew, Commissioner, Growth & Development Services	☑
Jennifer Campbell, Commissioner, Community Services	Not required
Neil Carbone, Commissioner, Corporate & Emergency Services	Not required
David Fell, President & CEO, Utilities Kingston	Not required
Desirée Kennedy, Chief Financial Officer & City Treasurer	Not required

Options/Discussion:

Background

The purpose of this report is to provide an update and overview of the state of micromobility permissions in Kingston and in select municipalities across Ontario. The report identifies trends and best practices to help guide how the City could regulate micromobility and active transportation in the future.

This review is intended as a first step in supporting Council's Strategic Priorities, including Priority 2.2.1, "Implementation of the City's Climate Leadership Plan, that aims to promote multimodal lifestyles not dependent on personal automobiles and explores options for a bike sharing program that provides a sustainable transportation option for residents and visitors"; and Priority 3.3 Improve Public Transit and Active Transportation Options, including prioritizing pedestrian connections and dedicated cycling lanes. A review of the City's by-laws that regulate micromobility was also identified as a recommendation of the City's Active Transportation Implementation Plan.

In consultation with Kingston Police, a wide range of privately owned micromobility devices have been observed to be operating on municipal roads, pathways and sidewalks in Kingston. City staff also receive inquiries regarding the use of various micromobility devices, including whether and where they are permitted to be used. In many instances, the Highway Traffic Act (HTA) and the City's existing by-laws do not provide sufficiently clear regulations to inform micromobility users of the rules or to effectively guide enforcement.

As a first step ahead of determining feasibility and the potential operating parameters of a shared micromobility program in Kingston, staff are conducting a review of the City's regulations and by-laws related to the personal use of micromobility devices and will recommend subsequent regulatory updates. This approach recognizes the shorter-term need to provide clarity for existing and future private users of micromobility in Kingston and the opportunity to encourage the safe use of these modes as sustainable transportation options. Further, the recent trend of shared micromobility systems has shifted predominately towards e-bikes and e-scooters in North America, which are modes of travel that will be captured as part of the planned review in the context of personal use. The future feasibility of shared systems in Kingston is intended to be informed by the forthcoming Integrated Mobility Plan.

What is Micromobility?

Micromobility is a general term used to describe a range of small, low speed, relatively light weight, human or electric-powered modes of travel. Examples of micromobility (as shown in Exhibit A) include bicycles, e-bikes and electric kick-scooters (e-scooters), cargo bikes/trikes, folding bikes, electric motor scooters (electric scooter with a step-through frame, throttle and seat), skateboards, roller blades, and Low Speed Vehicles (LSVs). In cities across North America, these devices are used for a variety of purposes and can be privately owned, shared, rented, or commercially operated for deliveries.

For additional clarity, assistive mobility devices such as manual and powered wheelchairs and scooters are not categorized as micromobility devices. When operating assistive mobility devices, persons are considered pedestrians.

Micromobility offers a variety of additional options for residents to get where they need to go. Benefits of micromobility include, but are not limited to:

- Opportunity for GHG reductions as a viable alternative to driving
- Lower cost options for transportation
- Efficient use of space, helping to move more people and reduce traffic congestion
- Convenient and efficient way to make short trips
- Provides a viable option for longer trips through assistive power that may not otherwise be chosen or feasible using conventional active transportation modes
- Improves health and wellness

In recent years, micromobility in Ontario has seen significant growth in uptake and demand, particularly as it relates to new forms of micromobility devices, both through private ownership and municipal shared-use programs. In response to this emerging trend and to advance options for sustainable trips, some municipalities across Ontario have introduced new by-laws, updated existing by-laws, and opted to participate in provincial pilot programs that permit the use of select types of micromobility.

MTO Micromobility Pilot Programs

The Ministry of Transportation (MTO) is currently piloting five types of micromobility vehicles: electric kick-style scooters, cargo e-bikes, low-speed vehicles, golf car (carts), and large quadricycles. According to the MTO, the aim of these pilots is to recognize the importance of new or existing vehicle technology, especially if it expands mobility options for Ontarians, while also keeping safety a top priority. To participate in any of these pilot programs, a municipality must first pass a by-law allowing the particular type of micromobility to be operated within its jurisdiction. The by-law may further regulate the use of the micromobility mode by adding additional conditions, and/or by restricting where the vehicle is permitted to be operated.

The pilots available in Ontario are as follows:

- Ontario Regulation 389/19 (“Pilot Project – Electric Kick-Scooters”) – An electric kick-scooter (e-scooter) is a vehicle that has two wheels (one at the front and one at the back), a platform to stand on, a handlebar for steering, an electric motor that does not exceed 500 watts, and a maximum speed of 24 km/h on a level surface. Ontario’s e-scooter pilot program allows municipalities to choose where and how e-scooters may be used. This pilot program was recently extended for an additional five years, until November 27, 2029. The MTO states that this extension will allow for the continued collection and analysis of data, providing a more robust understanding of the program’s outcomes and helping to inform future policy direction.

- Ontario Regulation 141/21 (“Pilot Project – Cargo Power-Assisted Bicycles”) – Cargo e-bikes are a type of electric-powered bike with a platform or box to carry larger items. Businesses can use cargo e-bikes as another way to deliver products, to reduce their carbon footprint, or as an alternative to larger delivery trucks. People can also use cargo e-bikes to transport larger items for personal purposes. The cargo e-bike pilot program lets municipalities choose where and how cargo e-bikes can be used. This pilot program ends March 1, 2026.

- Ontario Regulation 215/17 (“Pilot Project – Low-Speed Vehicles”) – Defined in regulation under the federal Motor Vehicle Safety Act, a low-speed vehicle is an electric, four-wheeled vehicle that is smaller and lighter than a regular car. Low-speed vehicles (LSVs) have a maximum speed of 40 kilometres per hour. The pilot program allows LSVs that meet certain requirements to be used on roads in Ontario with a maximum speed limit of 50 kilometres per hour or less. The pilot program allows municipalities to choose where LSVs can be operated. This pilot program ends on June 29, 2027.

- Ontario Regulation 407/21 (“Pilot Project – Golf Cars”) – The golf car pilot program provides another transportation option for people living in communities with unique transportation needs. The pilot program allows residents and visitors to use golf cars on roads with a speed limit of up to 50 kilometres per hour on Pelee Island and in the municipality of Huron-Kinloss. Currently, other municipalities cannot opt in to the pilot, but the Province has proposed amending the regulation to enable any Ontario municipality to participate in the pilot, provided they pass a by-law. Various pilot parameters (e.g., golf car specifications, operating requirements) also apply. This pilot program ends June 3, 2031.

- Ontario Regulation 411/22 (“Pilot Project – Large Quadricycles”) - Large quadricycles are bikes that can seat 12 or more people and are often used for tourism. They can be non-electric or electric-assisted. The large quadricycle pilot program allows electric-assisted large quadricycles on roads where permitted, and allows municipalities to choose where and the size that can be used. This pilot program ends April 21, 2032.

The City of Kingston is not currently participating in any of the provincial micromobility pilot programs above. To do so would require Council approval of enabling by-laws regulating the specific type of micromobility device in the Kingston context. As the City is not currently participating in these pilots, the operation of these types of micromobility devices is prohibited on City roadways, sidewalks, walkways, pathways, trails, and in parks and other public property.

Regulatory Framework

The Canada Motor Vehicle Safety Act (including the Motor Vehicle Safety Regulations) defines types of vehicles, including a low-speed vehicle, three-wheeled vehicle, moped, limited speed motorcycle, and a motor tricycle, and specifies requirements for each.

The Ontario Highway Traffic Act (HTA) regulates bicycles, power-assisted bicycles, and motor-assisted bicycles, and pedestrians on highways, and provides regulation for the micromobility pilot programs listed above.

In 2021, recognizing the evolving range of e-bike designs, the Province drafted a new classification system designed to differentiate types of e-bikes, based on weight, size and design. The intent was to facilitate a consistent approach to regulating where each type of e-bike is permitted to operate within a municipality's transportation network, and differentiate between those that resemble a traditional human-powered bicycle, those that are a heavier throttle-equipped scooter-style, and those that are an even heavier motorcycle-style. These e-bike classification definitions received Royal Assent but were not proclaimed into force.

In 2024, the Province indicated that it was no longer proceeding with this draft classification system and instead planned to conduct further review and consultations. Under Bill 197, Safer Roads and Communities Act, 2024, which recently received Royal Assent but is yet to be proclaimed into force, the Province intends to remove the term "power-assisted bicycle" and all related provisions from the HTA, and instead provide regulation-making powers to facilitate establishing new classes of vehicles and to set out rules respecting such classes. It is anticipated that this process will eventually produce regulations establishing specific classes of e-bikes and potentially other types of micromobility.

Absent a finalized provincial e-bike classification system, municipalities may use their broad powers under the Municipal Act, 2001 to establish different classes of e-bikes for the purpose of determining where they are permitted to be operated within their respective boundaries, provided there is no conflict with provincial legislation. The municipality may be more restrictive than the Province but not less so.

Bicycles are permitted by Provincial regulation on public property in all Ontario municipalities, unless restricted or prohibited in or on particular transportation infrastructure by a municipal by-law.

The following new or emerging types of micromobility are currently prohibited by Provincial regulation on public roadways in all Ontario municipalities:

- electric unicycle
- electric one-wheel
- electric skateboard
- electric hoverboard
- electric transporter (Segway)

All these devices are classified as motor vehicles under the Highway Traffic Act, however, they do not meet the provincial equipment safety standards for on-road use. Only motor vehicles that fully comply with federal and provincial requirements of a particular class of vehicles are eligible for on-road use in Ontario.

Any micromobility vehicles can be operated on private property, but only under the conditions that a property owner expressly allows.

Micromobility Regulations in Kingston

The use of some but not all types of micromobility in Kingston is expressly regulated by the following City by-laws: Streets By-Law Number 2004-190, Traffic By-Law Number 2003-209, Parks By-Law Number 2009-76, and Waterfront Trail By-Law Number 94-100. It is currently anticipated that the Streets By-Law will be undergoing a comprehensive review within the next year.

The regulations contained in the City's by-laws for these identified types of micromobility are summarized as follows:

Bicycles / e-bikes

- not allowed on sidewalks
- allowed on roads and bike lanes; must ride in single file with a secure hold on the handlebars and both feet on the pedals
- allowed, unless restricted or prohibited by posted signage, on designated park paths and trails

Roller skates; skateboards (human-powered)

- not allowed on roads
- allowed on sidewalks
- allowed, unless restricted or prohibited by posted signage, on designated park paths and trails

In-line skates (roller blades)

- not allowed on sidewalks, except by children up to 10 years old on sidewalks along roads other than those indicated in Schedule B of the Streets By-Law
- allowed on roads, except those roads indicated in Schedule B of the Streets By-Law (includes arterials within the former City of Kingston boundaries, and most streets within the downtown business district)
- allowed, unless restricted or prohibited by posted signage, on designated park paths and trails

Additional rules regulating the use of in-line skates:

- not while under the influence of alcohol
- not while operating any device at a sound level which impairs the person's ability to hear oncoming vehicles or other potential dangers
- come to a complete stop before entering a roadway
- operate with due care and attention to their own safety and the safety of others
- proceed in single file and operate as closely as possible to the right-hand edge of the roadway to avoid undue interference with vehicular traffic, except where reasonably necessary to avoid unsafe conditions
- cross a roadway at a right angle to the highway when making a left turn into an adjacent highway or property, in the same manner as a pedestrian

Human-powered kick-scooters are not currently expressly regulated under the City's existing by-laws.

There are also several examples of new and emerging types of micromobility devices that are not expressly regulated by Kingston's by-laws. Some of these devices are covered under existing provincial pilots in which the City is not currently participating. New and emerging devices that fall outside provincial pilot programs – such as electric unicycles, electric one-wheels, electric skateboards, electric hoverboards, and electric transporters – are classified as motor vehicles. As a result of this classification, they are prohibited under City by-laws from operating on sidewalks, multi-use paths, and trails.

Based on the City's existing by-laws, including staff's interpretation of various forms of micromobility that the by-laws are currently silent on or do not contemplate, staff have compiled a comprehensive list of micromobility devices in Table 1 and, in each case, identified the transportation facilities in Kingston in which the device is permitted to or prohibited from being operated in.

Table 1 – **Micromobility Regulations in Kingston**

Type of Micromobility / Transportation Facility	Road	Bike Lane	Sidewalk	In-Boulevard Multi-Use Path/Cycle Track	Walkway (lane/ footpath between residential streets)	Park path / off-road trail
Bicycle, tricycle, unicycle, cargo bicycle, e-bike (including a cargo e-bike weighing up to 55 kilograms)	Yes	Yes	No	Unregulated*	Yes**	Unregulated*
e-cargo bike weighing more than 55 kilograms	No	No	No	No	No	No
electric powered kick scooter (e-scooter)	No	No	No	No	No	No
in-line skates (roller blades)	Yes**	Unregulated*	No***	Unregulated*	Yes**	Unregulated*
roller skates; skateboard	No	No	Yes	No	Yes**	Unregulated*
limited speed motorcycle (motor scooter); motor-assisted bicycle (moped)	Yes	Unregulated*	No	No	No	No
electric unicycle; electric one-wheel; electric skateboard; electric hoverboard; electric transporter	No	No	No	No	No	No

*This type of micromobility/transportation facility is not expressly referenced in the applicable provincial legislation or City by-law.
**Except as restricted or prohibited by signage.
***Children ten years of age and under are permitted to use in-line skates on the sidewalk of a street other than a street designated in Schedule B of the Streets By-Law.

Other types of vehicles including low-speed vehicles (LSV), golf cars (carts), large cargo bicycles and large quadricycles are currently prohibited from operating on any public transportation infrastructure in Kingston. As previously mentioned, these types of vehicles could be permitted to operate in Kingston if Council were to decide to opt in to the corresponding provincial pilot program, with the current exception of golf cars for which the pilot program has not yet expanded beyond the two originally eligible municipalities.

Users of mobility assistive devices such as human and powered wheelchairs and mobility scooters are considered pedestrians and as such, are permitted to operate those devices on sidewalks, in-boulevard multi-use paths, walkways, park paths and off-road trails. Under the HTA, pedestrians, including persons operating mobility aids, may only travel on a roadway or paved shoulder when no sidewalk exists or is not accessible (i.e. no curb ramp), and when doing so, must travel facing oncoming traffic and return to the sidewalk at the first available opportunity.

Jurisdictional Review

A preliminary jurisdictional review of micromobility permissions in municipalities across Ontario was conducted. The municipalities reviewed included Hamilton, Mississauga, Windsor, London, Ottawa, Toronto Peterborough, and the Region of Waterloo.

Municipalities across Ontario have taken various approaches to regulating micromobility devices within their jurisdictions. To regulate micromobility, municipalities have taken the approach of amending existing by-laws – most commonly by-laws regulating traffic, parking, and parks – to permit or prohibit the use of micromobility devices. Another approach is to draft an entirely new by-law. These by-laws can pertain to one specific form of micromobility, such as London's Electric Kick-Scooter and Cargo Power-assisted Bicycle By-law, or they can take a more holistic approach to regulating micromobility, such as the City of Peterborough's Active Transportation By-law, which consolidates all forms of micromobility under one set of regulations. Within these by-laws, municipalities classify each type of micromobility device using definitions similar to those found in the HTA, and follow recommendations outlined within the MTO micromobility pilots regarding regulations.

Among the municipalities consulted, the E-Scooter and E-Cargo Bike Micromobility Pilots have been the most common pilots adopted. Since the E-Scooter Pilot Program's inception in January 2020, approximately 16 municipalities have opted-in to the program, including six of the eight municipalities reviewed. While the pilot program sets out specific requirements for e-scooters and operators, municipalities are responsible for choosing how, where and when e-scooters may be used. As a result, municipalities that have opted into the pilot have either amended an existing by-law or developed a new by-law to specifically regulate e-scooters.

Of the eight municipalities reviewed by staff, Toronto, Ottawa and London have opted into the E-Cargo Bike pilot. Staff also note two additional municipalities that have expressed interest in participating in the pilot program but have not yet opted in. Toronto, Ottawa, and Hamilton have also opted into the Low-Speed Vehicles pilot.

A more detailed review of municipal regulatory frameworks will be completed as part of the next step of developing a recommended approach for Kingston.

Challenges and Considerations

The emergence of micromobility has presented several challenges for municipalities. Due to gaps in comprehensive federal and provincial regulation, individual municipalities are largely responsible for defining and regulating micromobility. As the demand for and usage of micromobility increases, so too does the variety of devices available in the market. These new devices do not always fit within existing definitions in municipal by-laws, which can make regulation and enforcement more challenging.

For example, some LSVs, sometimes referred to as “boomer buggies”, have been branded and marketed as “mobility scooters”. This would suggest to prospective buyers that it is not classified as a motor vehicle and as such, would not be required to be registered and insured, nor require the operator to be a licenced driver – and further that it could be operated wherever pedestrians and their mobility aids are permitted, including on a sidewalk, walkway or multi-use path or trail.

To determine whether a device is considered a mobility aid or an LSV, staff would refer to the defined provincial regulations under the LSV pilot as well as the provincial Assistive Devices Program. A powered mobility device under the Assistive Devices Program is described as having a maximum operating speed of 14 kilometres per hour and is to be regulated in the same way as pedestrians are, whereas LSVs are only permitted to be operated on roadways and at speeds up to 40 kilometres per hour. Where permitted under the pilot, LSVs must have a licence plate, registration, and insurance in Ontario. As such, an LSV as defined by the Province would not be considered a mobility assistive device.

Another challenge municipalities have encountered is determining how to appropriately manage access to shared or mixed-use transportation facilities. This includes the operation of larger, heavier and faster micromobility devices (e.g. scooter style and motorcycle style e-bikes) alongside operators of smaller, lighter and slower types of micromobility and pedestrians, in particular vulnerable groups including seniors, young children and persons with disabilities. An e-bike, for example, can weigh up to 120 kilograms and can be operated at speeds up to 32 km/h. In some municipalities, this incompatibility has resulted in certain types of micromobility being either restricted or prohibited from operating on facilities including sidewalks, physically separated bikeways, multi-use paths, and trails within parks. This has been further complicated by recent amendments to the HTA, which, once finalized, will remove the proposed classifications and definition of power-assisted bicycle.

An additional challenge is that many existing transportation facilities in Ontario were not necessarily constructed and are not maintained with these emerging technologies in mind. For example, the provincially mandated Minimum Maintenance Standards (MMS) consider motor vehicles and bicycles, but do not necessarily account for the smaller wheels and higher power-to-mass ratio of kick e-scooters. The greater susceptibility to instability when encountering

uneven roadway surfaces (i.e. potholes and cracks) and associated safety concerns formed part of the consideration for the City of Toronto to decline participation in the kick e-scooter pilot.

Next Steps

Building on information gathered to date, staff will develop a set of policies and supporting regulations that facilitate the safe operation of affordable and sustainable active transportation modes. More specifically, the recommendations will be guided by consideration of the following factors:

- mobility – enhance and expand options to use smaller and lighter modes of travel to commute, shop, recreate and access connections to transit
- safety – protect and consider all users of all ages and abilities
- climate – facilitate and promote the use of low/zero emission modes of travel
- equity and inclusion – facilitate and expand the use of affordable mobility options for all users
- public health – create a safer environment for people to travel within; promote a healthier, more active lifestyle
- economic vitality – create more vibrant communities and streetscapes; provide cost- and space-efficient options for commuting, shopping trips, and potentially for deliveries
- municipal expenses and liability – reduce congestion and future demand for roadway expansion by providing alternatives to automobile use, while also considering potential risk and liability implications

Recommendations for how micromobility should be regulated in Kingston including consideration for any of the provincial micromobility pilot programs, along with the required draft by-law(s), will be submitted to the Committee and Council for consideration in a future staff report. The proposed regulations will be accompanied by recommended set fines and administrative monetary penalties, established to provide a level of general deterrence and to enable Police and By-Law Officers to conduct enforcement when deemed necessary.

The timing of this work is subject to the forthcoming provincial regulations related to e-bikes. Developing e-bike classifications would be best positioned as a provincial matter of policy from which the City can then refine. The MTO has indicated that they will be holding consultations and has committed to engaging directly with City staff as new definitions for e-bikes are developed for Ontario.

Public Engagement

Staff will consult with interested parties and the residents as part of this work utilizing the City's Get Involved Kingston platform. The feedback received will inform the recommendations for Council's consideration.

Climate Risk Considerations

Encouraging micromobility as an additional option in place of auto trips presents a significant opportunity to reduce greenhouse gas emissions. Micromobility is a critical part of an integrated mobility system, particularly as it relates to connections to transit, which can also help mitigate or delay the need to construct additional roadway capacity. This provides additional space for green features and limits the contribution to the adverse temperature and other environmental impacts of paved surfaces.

Indigenization, Inclusion, Diversity, Equity & Accessibility (IIDEA) Considerations

A goal of future proposed regulations is to facilitate and expand the use of affordable mobility options for residents and visitors while enhancing the safety and comfort of users of micromobility and active transportation of all ages and abilities. This includes pedestrians of all abilities, who also rely on the City's transportation facilities, such as sidewalks, multi-use paths, and trails.

Existing Policy/By-Law

By-Law Number 2004-190, A By-Law to Regulate the Use of Streets

By-Law Number 2003-209, A By-Law to Regulate Traffic

By-Law Number 2009-76, A By-Law to Provide for the Regulation Use of Parks and Recreation Facilities of the Corporation of the City of Kingston

By-Law Number 94-100, A By-Law to Regulate the Use of the Waterfront Walkway

Financial Considerations

Costs associated with public consultation will be covered under the departmental operating budget.

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Exhibits

Exhibit A – Examples of Micromobility

Examples of Micromobility

E-Bike (traditional style)

E-Bike (scooter style)

E-Bike (motorcycle style)

E-Cargo Bike (up to 55 kilograms)

Large E-Cargo Bike (more than 55 kilograms)

Skateboard; In-Line Skates (roller blades); Kick Scooter (all human powered)

Electric Kick Scooter (e-scooter)

Moped (motor scooter)

Electric One-Wheel

Electric Skateboard

Electric Unicycle

Electric Hoverboard

Electric Transporter (Segway)

Electric Low Speed Vehicle

Electric Enclosed 3-wheeler