

Federation of South Toronto RESIDENTS' ASSOCIATIONS

City of Toronto Initiative: Developing a Micromobility Strategy

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About FoSTRA

The Federation of South Toronto Residents' Associations (FoSTRA) represents twenty-seven (27) resident associations in Toronto's five (5) downtown Wards (4, 9, 10, 11, 13) that contain over 600,000 residents. FoSTRA is committed to a livable and affordable Toronto, and its members are concerned about the consequences of this initiative. FoSTRA requests consideration of the effects of this strategy on our resident associations and their members, as well as the neighborhoods they represent in a city we love. Our aim is to contribute to the Micro Mobility Strategy currently under development by the City of Toronto.

City of Toronto Micro Mobility Strategy

Overview

The City of Toronto declined participation in Ontario's Pilot Project for Electric Kick Scooters in May of 2021 due to safety, liability, and accessibility concerns¹. Electric Kick Scooters are not currently legal for use on roadways, sidewalks, or trails, and current policy restricts their use to private property². This initiative will revisit regulation, policy, and respective enforcement as it is apparent that stand-up electric scooters can no longer be forbidden, but rather regulated.

Goals

The Strategy seeks to define challenges and regulatory changes related to micro mobility devices, and incorporate such into local policies and by-laws. Highlights in this area include, but are not limited to:

- Deterring illegal behaviour by those who operate motorized or motor-assisted vehicles on sidewalks³.
- Coordination with several other stakeholders and agencies to incorporate related policies and programs into this strategy in preparation for new micro mobility

¹ <u>City of Toronto Council Agenda Item 2021.IE21.7</u>

² <u>City of Toronto: Electric Bicycles (E-Bikes) & E-Scooters</u>

³ City of Toronto Council Agenda Item 2023.DM6.3

regulations for the Province of Ontario; for example, BikeShare Toronto, Cycle Network Plan, TTC 4-Year Service Plan⁴.

• Mandatory helmets for operators of electric kick-scooters⁵.

FoSTRA finds the goals of this strategy commendable.

Ontario's Pilot Project - Electric Kick-Scooters

The current pilot project related to electric kick-scooters is outlined in Ontario Regulation 389/19 and carries several stipulations, including, but not limited to:

- Their use is restricted to those sixteen (16) years of age or older⁶.
- Helmets are required for operators under eighteen (18) years of age⁷.
- The motor must not provide a maximum speed of more than twenty-four (24) kilometers per hour⁸.
- Their use is permitted on roadways⁹¹⁰ and prohibited on sidewalks¹¹, with some exceptions.

FoSTRA is supportive of the regulations mentioned above.

Research

Around the world, several cities have recognized issues with the platform of shared e-scooter networks. In Paris, France, rental e-scooters were banned in the fall of 2023¹²; a non-binding referendum found 90% of Parisians were in favour of said ban following e-scooter inception in 2018¹³. According to Reuters, there were 459 accidents and 3 deaths involving e-scooters or adjacent vehicles in Paris in 2022¹⁴.

Several scientific studies further solidify concerns in shared scooter networks. A study in Brisbane, Australia, found that illegal behaviours were observed significantly less on owned e-scooters in comparison to rental e-scooters; for example, helmet wearing was found to be 95.5% and 61.4% of riders for owned and rentals, respectively, in February 2019¹⁵.

⁴ <u>Developing a Micromobility Strategy, City of Toronto: Strategy Overview</u>

⁵ <u>City of Toronto Council Agenda Item 2023.IE5.5</u>

⁶ <u>O. Reg. 389/19, s. 8.1</u>

⁷ O. Reg. 389/19, s. 10

⁸ O. Reg. 389/19, s. 1.1(d)

⁹ <u>O. Reg. 389/19, s. 4</u>

¹⁰ O. Reg. 389/19, s. 5

¹¹ O. Reg. 389/19, s. 3

¹² Le Monde: Rental e-scooters cleared from Paris streets as ban comes into effect

¹³ <u>CNBC: Paris set to ban rented e-scooters after an overwhelming 90% vote for their removal</u>

¹⁴ <u>Reuters: Paris to ban e-scooters from September</u>

¹⁵ Changes in shared and private e-scooter use in Brisbane, Australia and their safety implications

Another study further confirmed the lack of helmet use in Berlin, Germany, finding that none of the observed 777 shared e-scooter riders were wearing a helmet over a 12.5 hour period and noted that helmet policies are not effectively enforceable through a digital rental platform¹⁶. Considering these statistics, craniofacial injuries are common in e-scooter riders involved in collisions as seen in F. Faraji et al., 2020,¹⁷ and supported in K. Kazemzadeh et al., 2023, described in more detail below. Therefore, concerns regarding safety and enforcement are clear in other jurisdictions.

Several studies have been conducted into the cause of e-scooter accidents. A literature review by Q. Ma et al., 2021, describes the impacts of severe vibrations as a confounding factor in e-scooter control. This study found that asphalt resulted in lower vibration frequency in comparison to concrete over the same length of time¹⁸. Therefore, asphalt roadways would be a preferred substrate in comparison to concrete sidewalks.

A literature review by K. Kazemzadeh et al., 2023, found that the interactions between e-scooters and other road users is an imperative area of study in order to develop adequate safety measures¹⁹; this was echoed in Q. Ma et al., 2021, regarding the proximity to other objects such as other road users. A study by S. R. Gehrke et al., 2021, further recognizes e-scooter spatial interactions based on data collected in Boston, USA, noting a connection between shared e-scooter users and long-term crash activity²⁰. It is clear that built infrastructure, multi-use roadways or paths, and the environment are factors in micro mobility safety.

Key takeaways from these studies are the need for regulatory policy, environmental analysis, infrastructure suitability, and enforcement effectiveness.

Recommendations of FoSTRA

We ask the City of Toronto to consider the following factors in their micro mobility strategy:

- Operation of all vehicles, excluding wheelchairs, is prohibited on sidewalks supported in the research noted above, the existing provincial e-scooter pilot project, and accessibility concerns described by the city.
- Increased enforcement of regulations concerning sidewalk use per the goals of this strategy and by-laws mentioned above.
 - Expansion of enforcement and the prosecution of infractions which plague local sidewalks, trails, and paths.

¹⁶ Safety Related Behaviors and Law Adherence of Shared E-Scooter Riders in Germany

¹⁷ Electric scooter craniofacial trauma

¹⁸ E-Scooter safety: The riding risk analysis based on mobile sensing data

¹⁹ Electric scooter safety: An integrative review of evidence from transport and medical research domains

²⁰ Spatial interactions of shared e-scooter trip generation and vulnerable road user crash frequency

- Creation of, or the amendment to an existing bylaw to empower a special class of officers who will target sidewalk operators, bike lane parking violators, and other moving vehicle infractions that inhibit accessibility and safe transit, particularly in the downtown core where population density is high.
- Costs associated with enforcement could be recuperated through new or increased fines, covering the labour costs of a special class of enforcement officers.
- The maximum speed of micro mobility devices is limited to twenty-four (24) kilometers per hour in line with the provincial pilot project.
- Speed is regulated on all shared paths and trails to encourage pedestrian safety and accessible use in line with spatial interaction research.
- Helmets must be mandatory for all riders in line with craniofacial injury research, accident statistics, and spatial interaction analysis, which is currently not in line with the provincial pilot project.
- Micro Mobility devices must be registered similarly to existing practices for other electric scooters within the City of Toronto.
- Parking considerations must be made as existing policy would prohibit the parking of micro mobility devices on roads and sidewalks²¹.
- Education programs must be introduced following policy changes to allow for safe operation, best-practices, and collision avoidance knowledge similarly to courses for operating a larger motor vehicle.
 - Particularly if there is an expansion into a shared-use network due to the research and poor performance outcomes in other metropolitan areas.
- The policy and regulations must include gyroscopically balanced vehicles such as Segways, hoverboards, et cetera which are also becoming emerging modes of alternative transportation and are not considered under the e-scooter title nor definition.
- All micro mobility devices must comply with hardware regulations established by government and associated governing bodies in line with expected safety standards.

²¹ Toronto Municipal Code Chapter 950 Traffic and Parking

Conclusion

FoSTRA is supportive of the development of a Micro Mobility Strategy, and finds the City of Toronto's work commendable. Existing research outlines several concerns in line with the safety and accessibility concerns mentioned by the City of Toronto, and FoSTRA stands with those concerns. Our key recommendations relate to enforcement of offences, particularly regarding sidewalk and shared trail usage, and the regulation of speed. Our support of this initiative is hinged on clear guidelines for micro-mobility vehicle use in all spaces; for example, roads, sidewalks, shared trails, parks, et cetera. Governing standards and associated regulation must be established, and enforced, in order to defend the safety and security of our residents. FoSTRA's support of the electric kick-scooters pilot project is contingent on the establishment of the above provisions.