



REPORT FOR ACTION

Pedal-Assisted Cargo Cycles Over 40kg

Date: July 8, 2020

To: Infrastructure and Environment Committee

From: General Manager, Transportation Services

Wards: All

SUMMARY

Online shopping has surged during COVID-19 and is anticipated to continue in the long-term, resulting in increased demands for deliveries. Pedal-assisted cargo cycles will help residents and businesses transport shopping and deliveries. While e-cargo cycles over 40kg are allowed in bike lanes in Toronto, they are not allowed in cycle tracks. This report is seeking to extend this permission to cycle tracks for pedal-assisted cargo cycles weighing more than 40kg.

In addition, this report recommends further steps to support e-cargo cycles and micromobility. These include working with the Province on greater regulatory clarity on the different e-bike types, and requesting permission from the Province to pursue pilot projects for e-cargo bike deliveries where exemptions are needed from existing restrictions such as a 120kg weight limit for power-assisted bicycles under the Ontario Highway Traffic Act.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council request the Ontario Ministry of Transportation review and revise their definition of a power-assisted bicycle to differentiate between different e-bike types including e-cargo cycles (e.g., bicycle-style e-bikes including pedelecs and throttle-only, and scooter-style e-bikes) and consult with stakeholders, including municipalities, to ensure that definitions are consistent among jurisdictions.
2. City Council request the General Manager, Transportation Services, to develop a proposed regulatory framework for micromobility that differentiates between different e-bike types including e-cargo cycles (e.g., bicycle-style e-bikes including pedelecs and throttle-only, and scooter-style e-bikes), and the infrastructure that they are permitted to use, in consultation with cycling groups, road safety groups, e-bike and e-cargo bike manufacturers, distributors, and users, and other relevant stakeholders and City

Divisions, and to report to the Infrastructure and Environment Committee in 2021, pending applicable consultations.

3. City Council amend Section 886-1 of City of Toronto Municipal Code Chapter 886, Footpaths, Pedestrian Ways, Bicycle Paths, Bicycle Lanes and Cycle Tracks, by inserting a new Section C as follows:

C. As used in Sections 886-14 and 886-15 of this chapter, the following term shall have the meaning indicated:

BICYCLE - Includes a bicycle, tricycle, unicycle, and a power-assisted bicycle which requires pedalling for propulsion ("pedelec"), or other similar vehicle, but does not include any vehicle or bicycle capable of being propelled or driven solely by any power other than muscular power.

4. City Council request that the General Manager, Transportation Services, report on progress in its Freight and Goods Movement Strategy in Fall 2020 on pilot project proposals for e-cargo cycles, including potential for feasibility of requiring evidence of driver training and other initiatives with industry and government partners.

FINANCIAL IMPACT

Funding and resources required arising from adoption of the recommendations in this staff report will be outlined in the upcoming staff report on Freight and Goods Movement Strategy expected by Fall 2020.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On June 29 to 30, 2020, City Council through Member Motion 22.41, directed the General Manager, Transportation Services, among other things, to consult, "...with relevant Divisions, to report to the Infrastructure and Environment Committee on July 9, 2020 with proposed by-law amendments to support cargo cycles weighing over 40 kg to be used on bicycle lanes and cycle tracks under Chapter 886 of the Toronto Municipal Code."

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.MM22.41>

On April 25, 2019, the Infrastructure and Environment Committee requested a report back on a proposed regulatory framework, safe road design and intersection requirements for low-speed wheeled modes under 25 km/hr, including cargo cycles, and e-assist cycles in Toronto.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE4.5>

On February 19 to 20, 2014, City Council adopted a harmonized definition of bicycle that includes power-assisted bicycles requiring pedalling for propulsion to under 40kg. Only bicycles meeting this definition are allowed on bicycle paths (mixed use paths) and cycle tracks. Bicycles and power-assisted bicycles over 40kg are allowed on conventional, painted bicycle lanes.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PW28.2>

COMMENTS

Background

Online shopping has surged during COVID-19, including greater digitization of local main street businesses. Demand for e-commerce and deliveries is anticipated to continue in the long-term. Pedal-assisted cargo cycles will help residents and businesses meet the need for transporting shopping and deliveries. "Pedal-assist" provides electric motor power when a rider pedals to help make the pedalling easier and the device move faster. The motor only provides assistance while the rider is pedalling. Pedal-assisted cargo cycles weigh in the range of 40kg to 110kg for personal use (including carrying children) and for small package, front door delivery purposes (see Figure 1 below).

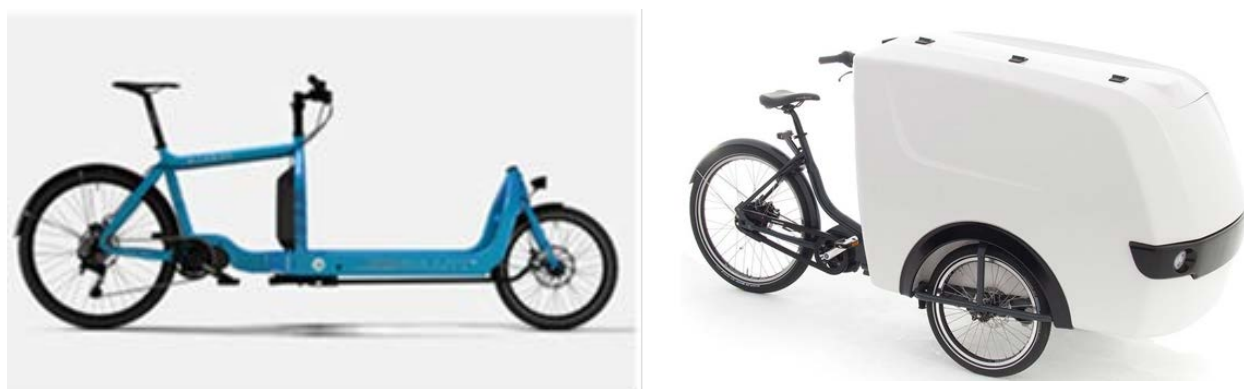


Figure 1. Pedal-assisted e-cargo cycles (examples)

Existing Municipal and Provincial Regulations

Currently, pedal-assisted cargo cycles over 40kg are allowed in conventional painted bike lanes in Toronto but not in bicycle paths (mixed use paths) and cycle tracks under *Municipal Code Chapter 886 Footpaths, Pedestrian Ways, Bicycle Paths, Bicycle Lanes and Cycle Tracks*. This decision dates back to February 19 to 20, 2014, when Toronto City Council adopted Item PW28.2 Electric Bikes - Proposed Policies and By-laws.

The 40kg limit serves the purpose of keeping unsuitable devices out of public spaces built for use by human-powered modes - including bicycle paths (mixed use paths) used by joggers/pedestrians and cycle tracks used by bicyclists. Unsuitable devices are power-assisted bicycles that are throttle-only, such as scooter-style e-bikes that weigh more than 40kg and are capable of being propelled solely using its electric motor. Such

devices pose safety risks when mixing with slower, human-powered modes. In addition, it is difficult for such e-bikes to exit cycle tracks which have raised curbs or vertical elements when passing slower cyclists. Painted bike lanes do not present such issues, which is the reason for allowing power-assisted bicycles (e-bikes) over 40kg on bike lanes, but not cycle tracks.

Existing municipal by-laws may not be optimizing the use of pedal-assisted cargo cycles that are in demand by residents and local businesses. An opportunity is presented as the bike network has most recently been expanded to include more kilometres of cycle tracks. E-cargo cycles that are used for personal errands and small package, front door deliveries are generally between 40kg to 110kg in weight, and are pedal-assisted, not throttle-only. The next section recommends updating the city's by-laws to allow pedal-assisted cargo cycles over 40kg in cycle tracks to encourage use of the expanded bike network.

It is important to note that the Ontario Highway Traffic Act sets a maximum of 120kg for power-assisted bicycles. Changes would be needed to provincial regulations to allow for e-cargo cycles and power-assisted bicycles that weigh more than 120kg on public roads.

An opportunity exists for addressing what is within the City of Toronto's authority for e-cargo cycles and the City's bicycle facilities; and an opportunity to continue discussions with the Ontario Ministry of Transportation, and Transport Canada regarding regulatory clarity for the different types of e-bikes.

Proposed Municipal By-Law Changes

In response to demands for pedal-assisted cargo cycles (shown in Figure 1 above) by local retailers/distributors, residents and local businesses, Transportation Services recommends that it would be reasonable and beneficial to allow them in cycle tracks. It would be reasonable to allow pedal-assisted cargo cycles as they still require pedalling (for the electric motor to work) to transport shopping/deliveries and/or to carry children. Since such devices are for personal use and small package, front door delivery purposes, the width of these devices would be accommodated in cycle tracks.

To allow pedal-assisted cargo cycles to operate in cycle tracks, the definition for 'bicycle' would need to be modified by removing the 40kg limit in sections 886-14 and 886-15 of the *Municipal Code Chapter 886 Footpaths, Pedestrian Ways, Bicycle Paths, Bicycle Lanes and Cycle Tracks*. The proposed change to the definition of bicycle would not be made to, or affect *Municipal Code Chapter 608, Parks*.

Transportation Services has recently consulted organizations like the Pembina Institute, who are working with e-cargo cycle retailers and the delivery industry, and consulted others including an e-cargo cycle local retailer and an organization in northwest Toronto, Our Greenway Conservancy, interested in a pedal-assisted cargo cycle pilot. Based on feedback from these various stakeholders, the recommendations in this report would improve pedal-assisted cargo cycle usage by residents and local businesses, and continue to improve regulatory clarity for e-cargo cycles and micromobility among the different orders of government.

Next Steps to Support Cargo Cycles

In addition, Transportation Services will pursue the following further steps to support e-cargo cycles and micromobility:

- Engage the Ontario Ministry of Transportation regarding regulatory clarity for different types of e-bikes including e-cargo cycles (e.g., bicycle-style e-bikes including pedelecs and throttle-only, and scooter-style e-bikes).
- Develop a micromobility strategy that incorporates a framework for addressing the range of emerging e-bike types which depends on Provincial definitions and regulations for power-assisted bicycles.
- Through the forthcoming Freight and Goods Movement Strategy, address working with industry partners and the Province on a pilot for larger e-cargo cycles that require an exemption from the Ontario Highway Traffic Act.

In summary, this report proposes immediate improvements to allow for pedal-assisted cargo cycles over 40kg in cycle tracks to support personal use and local business deliveries. Additional research, consultation and engagement of other orders of government are needed to address regulations and policies beyond the City's authority for power-assisted bicycles and e-cargo cycles that are not currently permitted under the Ontario Highway Traffic Act.

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