# **Proposed Amendments to Ontario Regulation 306/15: Pilot Project Automated Vehicles and Revised Regulations of Ontario 1990, Regulation 628: Vehicle Permits – Summary**

## **Introduction**

CNIB is pleased to provide the following comments in response to the Ontario Ministry of Transportation's [proposed amendments to Ontario Regulation 306/15](https://www.ontariocanada.com/registry/view_posting.jsp;jsessionid=cWeU_M8rebjN6btK-BRIMIo?language=en&postingId=39087).

Celebrating 100 years in 2018, CNIB is a non-profit organization driven to change what it is to be blind today. We deliver innovative programs and powerful advocacy that empowers people impacted by blindness to live their dreams and tear down barriers to independence and inclusion, including accessibility issues within the built environment.

As such, our recommendations focus largely on proposed amendment 6, “Develop a pilot framework for the testing of automated micro-utility devices”, which has the potential for the greatest impact on pedestrians and vulnerable road users.

## **Background**

Automated Micro-Mobility Utility Devices (MUDs), also known as delivery robots, are starting to take hold across many jurisdictions, particularly in the United States. These devices have the potential to bring about disruptive change to how small packages are delivered in high-density areas, as well as the possibility to benefit people with disabilities that are less able to leave their home.

Any new technology that reduces the number of vehicles on city roads and contributes to the reduction of green house gas emissions will be beneficial to society. However, if a disability lens is absent from the policy development process, then vulnerable road users including pedestrians with sight loss will be marginalized.

CNIB strongly encourages the Government of Ontario to apply a disability lens as they introduce regulations surrounding this pilot project.

CNIB appreciates that this is new and innovative technology. At the same time, as with autonomous vehicles, very little impact analysis on vulnerable road users has taken place. In fact, a CNIB report prepared with partial funding from Transport Canada's "Advance Connectivity and Automation in the Transportation System" revealed that very little research on accessibility issues existed. CNIB's report was released in 2019 and can be found both on the [CNIB website](https://www.cnib.ca/en/blog/cnib-hopes-inform-public-policy-connected-and-autonomous-vehicles?region=on) and through the [ACATS program](https://tc.canada.ca/en/programs/funding-programs/program-advance-connectivity-automation-transportation-system).

CNIB is concerned about the proliferation of delivery robots on crowded city sidewalks. These concerns are like those which we have already shared with the Ministry regarding the Ontario e-scooter pilot project and our [deputations to numerous city councils across Ontario](https://cnib.ca/en/e-scooters) and the rest of Canada.

In line with our recommendations related to e-scooters, which have created numerous accessibility barriers through their introduction on Ontario streets, **we recommend that the Ontario Ministry of Transportation investigates ways to ban MUDs that are currently operating in a legal grey area and focus efforts on how to enforce that ban**, rather than being resigned to the belief that these devices must be allowed to continue.

We also feel it would be amiss to not provide further feedback should the Ministry decide to proceed with the pilot and create further barriers to people with disabilities. We have the following questions which underpin our concerns and suggestions regarding the proposed pilot project:

1. Where will the devices be allowed to operate?
2. Will there be no go zones or black out times where delivery robots will not be permitted?
3. Will the robots be detectible by someone with poor or no sight so that the pedestrian can react accordingly?
4. Will devices be able to avoid collisions with vulnerable road users?

## **Where will the devices be allowed to operate?**

CNIB strongly opposes the proposal for delivery robots to share public sidewalks with pedestrians. We recommend that only in exceptional circumstances where appropriate road infrastructure is unavailable that sidewalk use be permitted.

If sidewalks are used, delivery robots should be allowed to operate only in areas where ample distance is available for pedestrians and the devices to pass one another. At a minimum, the devices should only be allowed to operate if they are able to leave a minimum clear path of travel at least 1.9 metres on one side. This minimum distance would allow a person accompanied by a sighted guide or someone working with a guide dog to safely pass or be passed by a delivery robot. This minimum space requirement would also enable someone using a wheelchair or mobility device to pass or be passed by a delivery robot.

Determining where the devices are allowed to operate will need to be done on a block-by-block area. CNIB recommends that delivery robots not be permitted on sidewalks that have protruding infrastructure such as steps projecting. Allowing this will inevitably find a pedestrian and a delivery robot vying for space between steps and obstacles placed in the service area of sidewalks.

CNIB encourages the Ontario government to ensure that an accessibility lens is applied to the deployment of delivery robots as an integral part of the 10-year pilot. This lens should capture both the positive and negative experiences and perspective of people with disabilities, specifically those with sight loss. This feedback might include collisions, inappropriately parked devices, and interactions where pedestrians with sight loss are compromised due to malfunctioning devices.

## **Will there be no go zones or black out times where delivery robots will not be permitted?**

In major centres such as Ottawa, Toronto, London, and other larger municipalities there are certain times of day when pedestrian traffic is high. Morning and evening rush hours, lunch hour breaks, tourist destinations and during public festivals are only a few examples. CNIB recommends that during these high activity periods and in areas where pedestrian traffic is high, that delivery robots not be permitted to operate. We are aware that e-scooter operators can deploy geofencing technology to restrict speed and access, which, in our view, should also be applied to delivery robots.

Geofencing technology has inherent limitations however, restricting areas is well within the capability of the technology. Geofencing technology could also be used to restrict time of day access and to limit the speed of delivery robots.

The proposed regulations specify a maximum speed of 10 km/h, which, for sidewalks is excessive and more in line with running speed. The speed of delivery robots should be maxed out at something more closely suited to normal walking speed if devices are operating on sidewalks. Being passed by a device traveling at 10 km/h will inherently cause some anxiety for many pedestrians regardless of their ability and create the potential to be injured by these heavy devices.

CNIB encourages the provincial government to expect that pilot participants provide detailed reporting on interactions between delivery robots and pedestrians. This metric must specifically capture key demographics such as ability. Failure to do so will result in an absence of meaningful data concerning interactions between vulnerable road users and delivery robots.

1. **Will the robots be detectible by someone with poor or no sight so that the pedestrian can react accordingly?**

Delivery robots must be easily detected by someone with sight loss, and CNIB encourages the provincial government to incorporate the following considerations into the pilot project regulations.

The devices must stand out clearly from their environment and be coloured in such a way as to make them highly visible. We support the requirement for the operator’s name, contact, and unique device number to be displayed on the exterior of the MUD. This must also be displayed in a large, high contrast and tactile lettering so that people with sight loss are able to report any issues.

The proposed regulations do not currently mention a minimum height requirement, and we recommend that the Ministry include this to enhance visibility of the device, especially for people who do not have a large peripheral field of vision and might not see things that are closer to the ground.

The devices should emit an audible sound, similar to that which is being incorporated into electric vehicles; and provide a means by which a pedestrian can speak directly to the operator of a delivery robot.

## **Will devices be able to avoid collisions with vulnerable road users?**

During the 2020 Tokyo Paralympics, [an athlete who is blind was struck by a delivery robot](https://www.cbc.ca/sports/paralympics/toyota-halts-self-driving-vehicles-use-after-olympic-village-accident-1.6157569). Fortunately, the injuries were minor. The vehicle in question had stopped at a T-junction and was under the manual control of the operator, who was using its joystick. Even under direct human supervision this unfortunate insurant took place.

There is no doubt that Toyota has conducted considerable analysis of the Tokyo incident but of concern to CNIB is the capacity of operators permitted to participate in the proposed pilot to do likewise. It is our position that similar incidents will take place on Ontario roads where the pilot is permitted and thus, only operators carrying the same liability coverage as set out under the 2016 autonomous vehicle pilot. This will ensure that when incidents happen that a pedestrian injured by a delivery robot will have appropriate recourse to have their injuries addressed without adding additional liability to the municipality, or the province.

**Conclusion**

In summary, we urge the Ministry of Transportation and Government of Ontario to **exercise their legislative and regulatory powers to ban the usage of MUDs in Ontario**, rather than regulate to permit them. As we have learned from the Ontario government’s ill-advised e-scooter pilot, having an opt-in approach for municipalities puts the burden onto the accessibility community to constantly monitor and address issues across the province and creates inconsistent and inaccessible communities throughout Ontario.