

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

Background:

On January 1, 2016, Ontario launched a 10-year pilot project under the *Highway Traffic Act* (HTA) to allow for the testing of automated vehicles (AVs) under certain conditions. In 2019, the Ministry of Transportation (MTO), in cooperation with key industry and road safety stakeholders, made enhancements to the AV Pilot program in response to advances in AV technology and to ensure economic competitiveness. For full details of the pilot project, please see [Ontario Regulation 306/15](#).

To date, Ontario has approved fourteen entities to participate in the pilot, two have been approved for driverless testing.

A pilot phase allows the ministry to establish rules, monitor industry and technology developments, and evaluate the safety of AVs prior to them becoming widely available to the public. On an ongoing basis throughout the 10-year pilot, MTO will assess data and information from on-road testing of AVs, engage stakeholders and make amendments to the pilot framework, as required.

MTO aims to be a leading jurisdiction in the advancement, deployment and adoption of connected and automated vehicle (CV/AV) technology, harnessing it to achieve our transportation goals, optimize our transportation system, enable economic growth and innovation, and align with other jurisdictions where possible, while protecting road safety in Ontario.

MTO is considering the following key amendments to the current AV Pilot regulation and related amendments to the Manufacturer Plate Program:

1. Expand eligible entities for the AV Pilot;
2. Remove restrictions on modification or manufacture of automated vehicles by pilot participants. Allow all approved pilot participants to modify and test originally manufactured automated vehicles under the pilot;
3. Expand Manufacturer Plate Program eligibility to include approved AV Pilot participants;
4. Expand Manufacturer Plate Program to allow carrying freight/goods and charging a fee;
5. Permitting the testing of automated farm vehicles under the AV Pilot Program; and
6. Develop a pilot framework for the testing of automated micro-utility devices.

The ministry is also proposing to amend the AV Pilot regulation to change the reference to the international standard SAE J3016 from the outdated June 2018 version to rolling incorporations of the most updated version of the standard.

[Proposed Amendments to AV Pilot Project Regulation \(O.Reg 306/15\) and Manufacturer Plate Program \(R.R.O. 1990, Reg 628\):](#)

1) Expand eligible entities for the AV Pilot

Currently, only vehicles manufactured and equipped by the following parties are permitted in the AV Pilot:

- Original Equipment Manufacturers (OEMs)
- Technology Companies
- Academic/Research Institutions
- Component and Systems Manufacturers

This proposal would remove regulatory restrictions on eligible entities for the AV Pilot. If an entity can demonstrate that they are able to meet all obligations of the pilot, the ministry would approve participation. This would expand eligibility for participation in the pilot to include currently ineligible entities such as municipalities, indigenous groups, corporations, transit companies, partnerships, or sole proprietorships.

2) Remove restrictions on modification or manufacture of automated vehicles by pilot participants

Currently, if a vehicle is originally manufactured as a Society of Automotive Engineering (SAE) Level 4 or 5, only an original equipment manufacturer is eligible to modify and test the vehicle. Other eligible entities for the AV Pilot are only able to test vehicles that they converted into AVs. This proposal would remove regulatory restrictions on the manufacture or modification of vehicles by participants within the AV Pilot Framework. This would allow all eligible entities participating in the program to modify originally manufactured automated vehicles.

3) Expand Manufacturer Plate (M-Plate) Program eligibility to include approved AV Pilot participants

The province's "M-Plate" Program allows motor vehicle and motor vehicle component manufacturers to operate vehicles on Ontario roads for the purposes of testing, demonstration, evaluation and exhibition. An M-Plate is eligible for use on a passenger vehicle, commercial vehicle, bus or a motorcycle.

This proposal would:

- Allow all entities eligible for the AV Pilot to test compliant and non-compliant Canadian Motor Vehicle Safety Standard (CMVSS) vehicles (e.g. driverless shuttles) on Ontario roads.
- Enable more testing of emerging vehicles (e.g. driverless shuttles) by more entities.

Currently many of these vehicles can only be plated with manufacturer plates. The M-Plate Program, however, is restricted to motor vehicle and component manufacturers, which is inconsistent with the eligibility for the AV Pilot.

4) Expand Manufacturer Plate (M-Plate) Program to allow carrying freight/goods and charging a fee

This proposal would expand the M-Plate Program to allow approved AV Pilot participants using manufacturer plated vehicles to carry freight/goods, and to charge a

fee. The proposal would enable participants to fully test their vehicles' capabilities, service delivery models and to gauge uptake of first mile/last mile solutions. This would reduce burden on Ontario AV manufacturers, transportation companies and businesses.

5) Permit the testing of automated farm vehicles under the AV Pilot Program

This proposal would amend O. Reg. 306/15 to allow for the testing of automated farm vehicles (not included in the definition of a motor vehicle) on public roadways, excluding 400-series highways. Current rules of the road for farm equipment continue to apply, (e.g., requirement to travel on shoulder of road, no size or weight limits, must have slow moving vehicle sign, licence plate not required, must signal turns, night-time lighting requirements etc.).

Most current rules for AV Pilot participation would also continue to apply including providing list of participating vehicles, providing a cybersecurity plan, collision reporting within 10 days, etc. Current driverless conditions in the AV Pilot continue to apply (e.g., declare technology is safe and effective based on prior testing for operational design parameters, declare direct oversight function and minimal risk fallback etc.).

6) Develop a pilot framework for the testing of automated micro-utility devices

Automated micro-utility devices (MUDs), including automated personal delivery devices, do not fall under the current AV regulatory framework as they cannot be considered automated vehicles under O. Reg. 306/15 because they are not meant for on-road operation. This proposal would create a new 10-year pilot regulation for automated or remote-controlled MUDs under the pilot authority of section 228 of the HTA. Parameters under consideration for these MUDs include:

- Defining MUDs to broadly cover devices that will not be defined as a motor vehicle in Ontario, are not meant for the transport of passengers, operate primarily off-roads in places such as sidewalks, and are task oriented and operated to primarily provide services such as delivery of goods;
- A 125 kg maximum weight and a 74 cm maximum width for all MUDs, except automated snow plows which have no proposed weight and dimension restrictions;
- A 10 km/hr maximum speed on sidewalks and a 20 km/hr maximum speed on shoulders of roads or bike lanes;
- A municipal opt-in and collision reporting regime, with authority to set by-laws and limit operations;
- Mandatory operator oversight, capable of creating a safe stop;
- Mandatory audible signals to alert those nearby;
- A requirement for reflectors and lights, with lights to be lit if operated between sunset and sunrise;
- A requirement for MUDs to be equipped with brakes;
- Prohibiting the carrying of controlled substances and dangerous goods that require a federal placard;
- General liability insurance, good working order, and secured loads requirements;
- A requirement to yield to pedestrians; and
- A requirement for an operator name, contact, and unique device number to be displayed on the exterior of the MUD.

The ministry is also proposing to amend the AV Pilot regulation to change the reference to the international standard SAE J3016 from the outdated June 2018 version to rolling incorporations of the most updated version of the standard.

Public Consultation:

The government of Ontario is considering the above mentioned proposals and invites you to submit your comments on the proposed amendments to the AV Pilot project regulation and related proposed amendments to the M-Plate Program.