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Item No. 11.1
Transportation Standing Committee
December 8, 2016

TO: Chair and Members of Transportation Standing Committee

SUBMITTED BY: Original Signed

Bruce Zvaniga, P.Eng., Director, Transportation & Public Works

DATE: November 22, 2016

SUBJECT: Segway Safety on HRM Sidewalks

INFORMATION REPORT

ORIGIN

Item 10.3.1 of the July 21, 2016 meeting of the Transportation Standing Committee:

MOVED by Councillor Mosher, seconded by Councillor Mason THAT the Transportation Standing Committee request a staff report addressing:

1. Potential safety issues regarding Segways on sidewalks;
2. Best practices for municipal by-laws regarding Segways;
3. What latitude Halifax Regional Municipality has in regulating Segways, including but not limited to, the regulation of speed and designated areas of use; and
4. That the report also consider whether it is possible to address sidewalks as a separate entity from streets in terms of the Motor Vehicle Act.

MOTION PUT AND PASSED.

LEGISLATIVE AUTHORITY

Motor Vehicle Act, R.S.N.S. 1989, c.293, subsection 172B (2) Where a sidewalk or roadway within a municipality is not part of a highway to which the *Public Highways Act* applies, the municipality may make a by-law prohibiting the operation of a personal transporter on that sidewalk or roadway.

BACKGROUND

In 2012, the Nova Scotia Department of Transportation and Infrastructure Renewal (NSTIR) was asked by Segway Nova Scotia to consider amending the Motor Vehicle Act (MVA) to allow Segway Personal Transporters to be legally permitted on Nova Scotia streets and sidewalks. NSTIR decided to test and evaluate as a pilot project the use of Segways on Nova Scotia's public streets and sidewalks in a controlled tour guided situation. The Nova Scotia Segway Pilot Project Evaluation Report is located at the following link:

http://www.novascotia.ca/tran/publications/revised-segway_pilot_project_evaluation_report_2016_final.pdf

Overall, NSTIR indicated that the Segway Pilot Project did not raise major safety concerns for the riders nor the majority of other road users. In December 2015, the MVA was amended so personal transporters may be used by individuals (not only those involved with tour groups) on provincial roadways, in conjunction with the majority of the conditions used during the two year pilot project. The MVA defines a personal transporter as a self-balancing electric vehicle with two side-by-side wheels and designed for the personal transportation of a single person and, for greater certainty, includes a Segway.

DISCUSSION

Potential safety issues regarding Segways on sidewalks

For safety reasons, the separation of slower forms of transportation from faster and larger forms is desirable. The upright nature of travelling on a personal transporter, their slower speed, the fact that they take up less physical space than a motorized scooter, and their ability to respond and turn quickly, makes them a more natural fit for a sidewalk, or the more protected bike lanes, rather than the right-hand side of the road or road shoulder.

The purpose of the Nova Scotia Segway Pilot Project was to measure:

1. Safety
2. Acceptance
3. Operating conditions for Segway use on Nova Scotia's sidewalks, streets and roadways

Safety of the riders and other road users were the most important factors being tested during the pilot project. Overall, the Segway Pilot Project did not raise major safety concerns for the riders nor the majority of other road users. Like other personal modes of transportation it is imperative that they be used in a safe and respectful manner and it is expected that sidewalks be respectfully shared by all users, whether walking, jogging, running, using a motorized scooters, or Segways.

Although there was some opposition from the public for riding Segways on sidewalks and roadways, it was not based on reports of collisions on public sidewalks or streets.

Best practises for municipal By-laws regarding Segways

A jurisdictional review was performed as part of the Nova Scotia Segway Pilot Project revealed that Alberta, Ontario and New Brunswick were conducting pilot projects to evaluate the safety of Segways on roadways in each individual province. Alberta prohibits Segways from roadways with the exception of Emergency Medical Services, various police agencies, and parking authorities. Segways Alberta has also received an exemption to expand their tour operations to include the city of Calgary.

Ontario began a pilot project in 2006 that is due to expire in 2018 which is limited to persons 14 years of age or older with mobility impairment, Canada Post employees who deliver door to door, and police officers for law enforcement purposes. They are only to be used on sidewalks, trails, paths and walkways provided municipal by-laws do not prohibit them. If they are prohibited by the municipality then they are permitted on the roadway. Ontario does not appear to be considering Segway use by the general public at this time. However, they are not prohibited from operating on private property.

New Brunswick's pilot project only permits law enforcement officers in Saint John to use Segways on public roadways.

As Nova Scotia is the first province in Canada to allow personal transporter use by individuals on provincial roadways there is limited information on best practices for municipal by-law.

What latitude Halifax Regional Municipality has in regulating Segways, including, but not limited to, the regulation of speed and designated areas of use

The MVA as amended specifies a number of operating conditions that are required by any individual using a personal transporter on provincial roadways which includes but is not limited to:

1. Drive alone and in a standing position at all times
2. Speed limit of 7 km/h on a sidewalk and 20 km/h on a roadway
3. Single file on a sidewalk, or bike lanes in the absence of a sidewalk, and the right-hand side of the road/road shoulder only in the absence of a sidewalk and bike lanes
4. Yielding to pedestrians on sidewalks until safe to pass
5. Riders should be no less than 16 years of age, unless at least age 14 and has a parent or guardian's consent while on a tour
6. Uses safety equipment such as helmets, and working bells/horns and lights
7. Use is prohibited on highways with a posted speed limit of greater than 60 km/h, controlled access highways, highways where bicycles are prohibited, and on private property if it is prohibited

There is no provision set out in the MVA giving municipalities the ability to alter speed limits for personal transporters. The MVA indicates municipal governments retain the ability to restrict personal transporter use on sidewalks or roadways in their jurisdiction. Therefore, if HRM wants to prohibit the operation of personal transporters from sidewalks or roadways it must do so through a by-law.

HRM is not able to restrict the use of personal transporters to guided tours only. The MVA does not give the municipality the authority to allow some personal transporters to use sidewalks or roadways (i.e. guided tours), but prohibit other personal transporters. If HRM does not designate a sidewalk or roadway as prohibited, then all personal transporters would be allowed.

Consider whether it is possible to address sidewalks as a separate entity from streets in terms of the Motor Vehicle Act.

The MVA specifies a hierarchy of where personal transporters are to be operated within a public right-of-way and unless it is impractical to do so should be operated on the sidewalk, then in a roadway in a bicycle lane and finally on the far right side of the roadway.

For the purpose of the MVA, where a personal transporter is operated on a roadway, the operator is deemed to be a cyclist and where a personal transporter is operated on a sidewalk, the operator is deemed to be a pedestrian.

Sidewalks can be treated as a separate entity from streets but it only can be done by by-law.

Summary

To date, staff are not aware of any reported collisions between a personal transporter and a pedestrian on a HRM sidewalk or roadway. At the request of the Regional Council, staff submit to the Transportation Standing Committee a semi-annual report regarding crosswalk and pedestrian safety. In future editions of this report, staff will highlight any collision statistics related to personal transporters to provide the committee with data to inform future decisions.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the recommendations in this Report.

COMMUNITY ENGAGEMENT

This report is in response to questions raised by the public and submitted through the Transportation Standing Committee

ATTACHMENTS

Attachment A: Bill No. 136 - An Act to Amend Chapter 293 of the Motor Vehicle Act

A copy of this report can be obtained online at <http://www.halifax.ca/boardscom/standing.php> then choose the appropriate committee and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Hugh Morrison, P.Eng., Traffic Services Supervisor, 902.490.5018



BILL NO. 136

Government Bill

*2nd Session, 62nd General Assembly
Nova Scotia
64 Elizabeth II, 2015*

An Act to Amend Chapter 293 of the Revised Statutes, 1989, the Motor Vehicle Act

CHAPTER 46
ACTS OF 2015

**AS ASSENTED TO BY THE LIEUTENANT GOVERNOR
DECEMBER 18, 2015**

The Honourable Geoff MacLellan
Minister of Transportation and Infrastructure Renewal

*Halifax, Nova Scotia
Printed by Authority of the Speaker of the House of Assembly*

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**An Act to Amend Chapter 293
of the Revised Statutes, 1989,
the Motor Vehicle Act**

Be it enacted by the Governor and Assembly as follows:

1 Section 2 of Chapter 293 of the Revised Statutes, 1989, the *Motor Vehicle Act*, as amended by Chapter 24 of the Acts of 1994, Chapter 12 of the Acts of 1994-95, Chapter 23 of the Acts of 1995-96, Chapter 12 of the Acts of 2001, Chapter 20 of the Acts of 2002, Chapter 42 of the Acts of 2004, Chapter 35 of the Acts of 2006, Chapters 20 and 45 of the Acts of 2007, Chapter 21 of the Acts of 2008, Chapters 59 and 60 of the Acts of 2010, Chapter 35 of the Acts of 2011 and Chapters 20 and 53 of the Acts of 2014, is further amended by

(a) adding “and does not include a personal transporter” immediately after “power” in the last line of clause (ad); and

(b) adding immediately after clause (aq) the following clause:

(aqa) “personal transporter” means a self-balancing electric vehicle with two side-by-side wheels and designed for the personal transportation of a single person and, for greater certainty, includes a Segway;

2 Section 50 of Chapter 293 is amended by adding “or a personal transporter” immediately after “bicycle” in the last line.

3 Section 69 of Chapter 293 is amended by adding immediately after subsection (3) the following subsection:

(4) No person who is under the age of sixteen years shall operate a personal transporter on a highway except

(a) a person at least fourteen years of age participating in a tour if the tour operator has the written consent of the person’s parent; or

(b) under such circumstances as are prescribed by the regulations.

4 Chapter 293 is further amended by adding immediately after Section 85 the following Section:

85A (1) For the purpose of this Act, where a personal transporter is operated on a roadway, the operator of the personal transporter is deemed to be a cyclist and, where a personal transporter is operated on a sidewalk, the operator is deemed to be a pedestrian.

(2) Every person shall at all times when operating a personal transporter exercise care and caution.

(3) Every person shall have identification in the person’s possession at all times when operating a personal transporter on a highway and shall

(a) display the same; and

(b) provide the person's address and date of birth,
at all reasonable times on the demand of a peace officer.

(4) Sections 97 and 98, except the requirement to exhibit a driver's license, apply to the operator of a personal transporter whether the personal transporter is being operated on a roadway or on a sidewalk.

(5) Sections 119 and 122 and subsection 171(4) do not apply to the operator of a personal transporter on a highway.

5 Subsection 100D(1) of Chapter 293, as enacted by Chapter 45 of the Acts of 2007, is amended by adding "or operating a personal transporter on a roadway or a sidewalk" immediately after "highway" in the last line.

6 Section 106 of Chapter 293, as amended by Chapter 34 of the Acts of 1996, is further amended by adding immediately after subsection (2) the following subsection:

(3) No person shall at any time operate a personal transporter at a speed in excess of

(a) twenty kilometres per hour on a roadway; or

(b) seven kilometres per hour on a sidewalk.

7 Section 137 of Chapter 293, as amended by Chapter 59 of the Acts of 2010, is further amended by

(a) adding "and a personal transporter" immediately after "bicycle" in the first and second lines; and

(b) adding "and the operator of a personal transporter" immediately after "cyclist" in the last line.

8 (1) Subsection 164(1) of Chapter 293 is amended by striking out "subsection (2)" in the first line and substituting "subsections (2) and (3)".

(2) Section 164 of Chapter 293 is further amended by adding immediately after subsection (2) the following subsection:

(3) When operating a personal transporter on a sidewalk, the operator shall yield to all pedestrians not riding on a personal transporter.

9 Subsection 170A(1) of Chapter 293, as enacted by Chapter 35 of the Acts of 1996, is amended by adding "and includes a personal transporter" immediately after "bicycle" in the last line.

10 Chapter 293 is further amended by adding immediately after Section 172 the following Sections:

172A (1) Only one person at a time may be on a personal transporter while it is being operated.

(2) A person operating a personal transporter shall stand when the personal transporter is in motion.

(3) A personal transporter shall not tow another person or vehicle or any device.

172B (1) A personal transporter shall not be operated on

(a) a roadway with a posted speed limit greater than sixty kilometres per hour;

(b) a controlled-access highway;

(c) a highway on which bicycles or on which personal transporters are prohibited by this Act or the regulations;

(d) on a specified sidewalk or roadway within a municipality if not part of a highway to which the *Public Highways Act* applies and prohibited by a municipal by-law; or

(e) private property if it is prohibited.

(2) Where a sidewalk or roadway within a municipality is not part of a highway to which the *Public Highways Act* applies, the municipality may make a by-law prohibiting the operation of a personal transporter on that sidewalk or roadway.

(3) A personal transporter shall be operated

(a) where a highway includes a sidewalk, on the sidewalk unless it is impracticable to do so;

(b) where the highway does not include a sidewalk or where it is impracticable to operate the personal transporter on the sidewalk, on the roadway in a bicycle lane travelling in the same direction that the operator of the personal transporter is travelling; or

(c) where the highway does not include a sidewalk or there is no bicycle lane for travelling in the same direction that the operator of the personal transporter is travelling or where it is impracticable to operate the personal transporter on the sidewalk or in the bicycle lane, on the far right side of the roadway.

(4) Subsections (2) and (3) of Section 127 and subsection (1) of Section 164 do not apply to personal transporters.

(5) Except when passing a cyclist or another personal transporter, the operator of a personal transporter on a highway shall operate the personal transporter in a single file with bicycles and other personal transporters.

(6) The operator of a personal transporter shall not make a left turn on a roadway except by crossing the roadway in a crosswalk and, for greater certainty, Section 125 applies to the operator as a pedestrian.

11 Subsection 174(6) of Chapter 293 is amended by

(a) adding “and personal transporter” immediately after “bicycle” in the first line; and

(b) adding “or personal transporter” immediately after “bicycle” in the fourth and in the last lines.

12 Section 183 of Chapter 293, as amended by Chapter 31 of the Acts of 1993, Chapter 25 of the Acts of 1994 and Chapter 20 of the Acts of 2014, is further amended by adding immediately after subsection (5) the following subsection:

(5A) Every personal transporter shall be equipped with a bell or horn in good working order and the operator of a personal transporter shall use it to give notice of its approach, including overtaking, on a roadway or a sidewalk.

13 Chapter 293 is further amended by adding immediately after Section 188 the following Section:

189 No person shall operate a personal transporter that

- (a) is not in good working order;
- (b) is missing a component, equipment or other feature that was part of the personal transporter when it was manufactured or that is required by this Act or has such feature rendered wholly or partly inoperable; or
- (c) has been modified after it is manufactured except to attach a basket, bag or similar accessory or to add equipment required by this Act.

14 Section 292 of Chapter 293, as enacted by Chapter 10 of the Acts of 2002 and amended by Chapter 8 of the Acts of 2005, Chapter 20 of the Acts of 2007 and Chapter 53 of the Acts of 2014, is further amended by

- (a) adding “, subsection (4) of Section 69” immediately after “58” in the second line; and**
- (b) striking out “or 183” in the sixth line and substituting “, 183 or 189”.**

15 Section 293 of Chapter 293, as enacted by Chapter 10 of the Acts of 2002 and amended by Chapter 8 of the Acts of 2005, Chapters 20 and 45 of the Acts of 2007, Chapter 62 of the Acts of 2008, Chapters 61 and 63 of the Acts of 2010 and Chapter 53 of the Acts of 2014, is further amended by

- (a) striking out “, 62 or” in the second line and substituting “or 62, subsection (1) or (2) of Section”;**
- (b) adding “, subsections (2) and (3) of Section 85A” immediately after “83” in the third line; and**
- (c) striking out “or 165” in the fifth and sixth lines and substituting “, 165, 172A or 172B”.**

16 Chapter 293 is further amended by adding immediately after Section 303J the following Section:

303K The Governor in Council may make regulations respecting personal transporters and, without limiting the generality of the foregoing, defining “tour” for the purpose of subsection 69(4).

17 Subsection 307(2) of Chapter 293, as enacted by Chapter 4 of the Acts of 2013, is amended by striking out “two” in the second line and substituting “five”.

18 This Act, except Section 17, comes into force on such day as the Governor in Council orders and declares by proclamation.
