



METROLINX

METROLINX VEHICLE BEACON SAFETY STANDARDS

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Vehicle Beacon Safety Standard

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Approvals

This standard has been approved by the following stakeholders:

APPROVALS			
Name	Position	Approval Date	Signature
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Matt Clark	Chief Capital Officer	June 26, 2020	
Ian Smith	Chief Operating Officer	June 26, 2020	

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

TABLE OF CONTENTS

RECORDS OF REVISION4

LIST OF ACRONYMS.....5

TERMS AND DEFINITIONS 5-7

METROLINX’S CUSTOMER AND SAFETY CHARTER 8

1.0 PURPOSE 9

2.0 OBJECTIVES9

3.0 SCOPE 9

4.0 ORGANIZATIONAL ROLES & RESPONSIBILITIES..... 10-11

5.0 REQUIREMENTS 11

6.0 GENERAL DELIVERY VEHICLES..... 11

7.0 TECHNICAL SPECIFICATIONS..... 12

8.0 LIMITATIONS..... 12

9.0 COMPLIANCE..... 13

10.0 REFERENCES DOCUMENTS 13

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

RECORD OF REVISION

REVISION HISTORY			
Date	Revision	Initiated by	Revision History
August 15, 2019	1.0 (Initial)	Manager Operating Practices, Safety	--
September 30, 2019	2.0	Manager Operating Practices, Safety	Revised scope of application to reflect rail corridor access.
October 8, 2019	3.0	Senior Manager, Construction Safety	Revisions reviewed by CPG Health and Safety, changes incorporated.
March 2, 2020	4.0	Manager, Construction Safety	Revised approvals page due to organizational leadership changes.
June 5, 2020	5.0	Manager, Construction Safety	Incorporated applicable comments from stakeholders. Compliance date revised to September 15, 2020.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

LIST OF ACRONYMS

HSE	Health, Safety and Environment
LED	Light Emitting Diode
OHSA	Occupational Health and Safety Act
ROW	Right of Way
SAE	Society of Automotive Engineers

TERMS AND DEFINITIONS

Applicable Terms

360 Degrees Warning Device	means a device that projects a light in a horizontal 360-degree arc. It will appear to project a regularly repeating pattern of flashes to an observer positioned at a fixed location. Its function is to inform other highway users to stop, yield right-of-way, or to indicate the existence of a hazardous condition.
Beacon	is a mechanical warning device that is able to either rotate, oscillate, pulsate, flash a regularly repeating pattern that is clearly distinguishable by an approaching movement/vehicle/equipment/pedestrian.
Constructor	is defined in the OHSA as a person who undertakes a project for an owner and includes an owner who undertakes all or part of a project by himself or by more than one employer. The constructor is generally the person who has overall control of a project.
Contractor	is an individual, person or entity, engaged under contract by Metrolinx, or a third party, to provide Construction or Maintenance services within Metrolinx Property. A Contractor can include a General Contractor or Project Company.
Employer	means a person who employs one or more workers or contracts for the services of one or more workers, and includes a contractor or subcontractor who performs work or supplies services, and a contractor or subcontractor who undertakes with an owner, constructor, contractor or subcontractor to perform work or supply services.
Designated Parking Area	is a predetermined space, zone, or area, not accessed by thoroughfare, operational or public traffic, used for the exclusive purpose of parking vehicles including customer or employee parking areas.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

General Contractor	is the individual, person or entity, engaged under contract by Metrolinx to provide Construction services within Metrolinx Property who is solely responsible for performing the work it is contracted to perform and is identified as the "Contractor" in the contract.
General Delivery Vehicle	any vehicle hired to support the delivery or removal of goods from Metrolinx properties. General delivery vehicles include but are not limited to: concrete trucks, bulk aggregate deliveries, rental equipment suppliers, tractor trailers involved in the delivery of equipment and or construction materials, etc.
Hazard Warning Signal	means hazard warning signal lamps, commonly known as four way flashers that produce intermittent flashes of light.
Metrolinx	is an agency of the Government of Ontario and includes GO Transit, Presto and UP Express.
Metrolinx Property	see "Property" definition.
Project Site	is synonymous with the geographic boundaries of a specific project's limits.
Project Zone	means a specific area (zone-delimited) within the Project Site, having boundaries defined by the contract, approved contractor site specific safety plans and/or the Metrolinx Safety Department, which is the primary area of operations for that General Contractor.
Property	also referred to as "Metrolinx Property" in this Standard, means real estate, owned or leased, including but not limited to train and bus facilities, train and bus stations and parking lots.
Railway Corridor or Rail Corridor or Right of Way (ROW)	refers to the Metrolinx-owned and operated on subdivisions of railway infrastructure, rail/maintenance/layover yards, and all property between property fences, or if no fences, everywhere within 15m from the outermost rails.
Rail Equipment	means a machine that is constructed for movement on lines of railway, whether or not the machine is capable of independent motion or a vehicle that is constructed for movement both on and off lines of railway while the adaptations of that vehicle for movement on lines of railway are in use.
SAE	Society of Automotive Engineers is a standards developing organization.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

Strobe	may be used interchangeably with the "Beacon." Strobe lights may be used as a beacon but are more commonly used to supplement beacon usage where a single beacon may not provide adequate 360 degree coverage of the vehicle.
Supervisor	means a person who has charge of a workplace or authority over a worker.
Vehicle	means a non-revenue motor vehicle, including mobile equipment, in use on behalf of Metrolinx, a contractor vehicle or piece of mobile equipment in use on behalf of Metrolinx.
Visitor	means any person that does not have a legal contract for work with Metrolinx or any of Metrolinx's contractors, is not regularly employed in the project zone and who is performing only visual inspection work, and/or is not involved in the physical execution of the project work.
Work Operation	includes any Construction Project, Operations or Maintenance activity.
Worker	means a person who performs work or supplies services for monetary compensation. Consideration shall also be inclusive of all other circumstances a person shall be identified as a 'Worker' as defined in the OHSA.
Worksite	means one of multiple work areas within a Project Zone under the control of a General Contractor for that Project Zone. A Worksite can be further defined by the presence of the General Contractor's personnel carrying out work.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

METROLINX'S CUSTOMER AND SAFETY CHARTER

A successful safety program requires the active participation of employees at all levels of the organization.

The Metrolinx Safety Charter is an enterprise-wide commitment that assigns personal ownership of safety to each employee to cultivate a culture of safety at all times. Ensuring safety is top-of-mind for all employees in the workplace and at home is a top priority.

We must be vigilant in identifying safety concerns and act proactively to manage them as quickly as possible. The Safety Charter commits all employees to better identify potential improvements to keep our workplaces, systems and services safe and promotes continuous improvement.



OUR CHARTER

Our customer promises

- To do our best to be on time**
- To always take your safety seriously**
- To keep you in the know**
- To make your experience comfortable**
- To help you quickly and courteously**

Our safety promises

- To keep myself and everyone around me safe at all times**
- To act and make unsafe situations safe**
- To learn from safety incidents and to help others learn too**





PRESTO UP

Health, Safety and Environmental Policy

Management has committed to a Health, Safety and Environmental (HSE) Policy in an effort to bring these elements to the forefront of decision-making and support its employees in fostering a culture of safety. A copy of the latest policy can be found on Metrolinx's Employee Intranet Portal, MyLinx.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

1.0 PURPOSE

The purpose of the Vehicle Beacon Safety Standard is to establish the minimum requirements for Metrolinx Workers and Contractors performing work on behalf of Metrolinx while operating non-revenue vehicles and/or motorized equipment. This standard outlines the protection and controls required to safely operate vehicles/equipment within Metrolinx owned rail corridors.

Hazards in the workplace must be recognized, assessed and controlled. This standard has been implemented to protect against physical hazards in the railway corridor such as other vehicles, moving equipment and train movements. Beacons improve visibility by providing advance warning and also increase the situational awareness of vehicle and equipment operators.

2.0 OBJECTIVES

The objective of the Vehicle Beacon Safety Standard is to:

- 2.1. increase the visibility of moving vehicles / equipment to workers and contractors, allowing them to stop, yield right-of-way, or to indicate the existence of hazardous condition;
- 2.2. increase the visibility of moving vehicles / equipment to workers and contractors, allowing them to stop, yield right-of-way, or to indicate the existence of hazardous condition;
- 2.3. ensure all non-revenue vehicles and equipment accessing and/or operating in the Metrolinx rail corridor are equipped with a functional beacon; and
- 2.4. identify the circumstances when a beacon must be engaged.

3.0 SCOPE

This policy applies within the Metrolinx owned Right of Way (ROW), to all Metrolinx employees, Contractors, Constructors, Consultants and third party contractors involved in the following:

- 3.1. planning, coordination, supply, delivery and movement of any vehicles, machinery, personnel or materials;
- 3.2. carrying out or overseeing construction or maintenance activities involving the use of off-track vehicles and machinery on Metrolinx owned ROW;
- 3.3. maintaining/servicing vehicles and machinery;
- 3.4. protection arrangements for vehicle entry into the Metrolinx ROW; and
- 3.5. protection arrangement for any vehicles crossing open lines.

Notwithstanding the abovementioned, this policy does not apply to other railway companies who only operate trains on Metrolinx property under various track or interchange agreements.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

4.0 ORGANIZATIONAL ROLES & RESPONSIBILITIES

4.1 Duties of Constructor, Employers and Contractors

A Constructor shall ensure, on a project undertaken by the constructor, that:

- the measures and procedures prescribed by this Standard are carried out on the project;
- every employer and every worker performing work on the project complies with the Ontario Occupational Health and Safety Act and its regulations; and
- the health and safety of workers on the project is protected.

An Employer shall ensure that:

- the equipment, materials and protective devices as prescribed are provided;
- the equipment, materials and protective devices provided by the employer are maintained in good condition;
- the measures and procedures prescribed are carried out in the workplace; and
- the equipment, materials and protective devices provided by the employer are used as prescribed.

Constructors, Employers and Contractors shall also ensure that:

- the requirements of this standard are met;
- supervisors implement measures and procedures to meet and demonstrate the requirements outlined in this standard;
- procedure(s) related to the use of beacons in the railway corridor are reviewed annually; and
- workers are trained in associated procedure(s) and requirements of this standard.

Note: Where a Contractor is a "Constructor" managing a construction project for Metrolinx. As "Constructor" for the project, the policies and standards of the Constructor must meet or exceed this Vehicle Beacon Safety Standard and the Constructor shall enforce the same at that construction project.

4.2 Duties of Supervisor

Supervisors shall ensure that:

- processes and/or procedures are implemented to meet and demonstrate the requirements outlined in this standard;
- workers are trained in any associated processes and/or procedures for the application of this standard, including how to operate, assemble, and disassemble beacons;
- workers comply with the requirements outlined in procedures established for the use of beacons;
- participation in annual reviews to determine effectiveness and applicability of this standard;

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

- vehicles of any consultants, contractors, and/or visitors are equipped with functioning beacons before entering the railway corridor, worksite or project, in accordance with the provisions of this standard;
- non-conforming vehicle(s) and/or equipment are immediately escorted by a conforming vehicle in the leading position to a position of safety, outside of the railway corridor;
- all reported contractor non-conformances are documented, tracked and reflected in the Vendor Performance Record; and
- all reported worker non-conformances are documented, tracked and progressive discipline administered as appropriate.

4.3. Duties of Workers

Workers shall ensure that:

- work in conformance with the provisions of this standard and any associated procedures;
- immediately report any non-conformances to this standard to their supervisor; and
- report the absence of, or defect in any equipment or beacon of which the worker is aware and which may endanger themselves or another worker to their supervisor.

4.4. Duties of Metrolinx Fleet Services

Fleet Services shall ensure that:

- ensure existing or new Metrolinx owned or leased non-revenue fleet vehicles are equipped with a functioning beacon, in accordance with the specifications in section 7 of this standard; and
- implement and maintain an associated process and/or procedure related to the procurement and installation of beacons for the Metrolinx Non-Revenue Vehicle fleet.

4.5. Duties of Metrolinx Safety Division

The Safety Division shall ensure that:

- complete reviews of this standard annually, implement amendments and maintain methods for communicating changes to affected stakeholders as required; and
- ensure that Metrolinx maintains methods for the oversight of workers and Contractors and verify effectiveness of those methods in meeting conformance to this standard, in collaboration with affected stakeholders.

5.0 REQUIREMENTS

- 5.1. All non-revenue vehicles including mobile equipment accessing and/or operating in the Metrolinx railway corridor including rail/maintenance/layover yards and infrastructure shall be equipped with a beacon which meets the specifications in section 7 of this standard; and
- 5.2. Beacons shall be activated during the movement of any non-revenue vehicle or mobile equipment vehicle while in the Metrolinx railway corridor.

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

6.0 GENERAL DELIVERY VEHICLES AND VEHICLES ON SITES MANAGED BY CONSTRUCTOR

General Contractors, including those acting as “Constructor” for a project for Metrolinx, are responsible to ensure that all delivery vehicles arriving at site are compliant with this policy prior to entering the Metrolinx owned rail corridor:

- 6.1. Consistent with the Metrolinx Vehicle Restriction Policy, general contractors have the responsibility to complete a full risk assessment identifying all hazards associated with the scope of work, including the management of all vehicles, and equipment requiring access to the Metrolinx rail corridor; and
- 6.2. The Contractor must clearly demonstrate to Metrolinx how they intend to implement controls to mitigate the potential risk of a major or minor incident associated with the vehicle access before access will be approved.
- 6.3. Situations arising that would require a deviation from this standard must be clearly identified in the contractor’s risk assessment, and include controls that offer the same or exceeds the level of protection against struck by hazards as accepted by Metrolinx.

7.0 TECHNICAL SPECIFICATIONS

Beacons referred to in this standard must meet the following specifications:

- 7.1. SAE Class 2;
- 7.2. LED is recommended due to the dependability and high visibility;
- 7.3. Amber in colour;
- 7.4. Stationary or portable form;
- 7.5. Display 360 degree visibility to other equipment, traffic and/or personnel;
- 7.6. Enable clear visibility during daylight hours; and
- 7.7. Secured to prevent unintentional dismounting.

8.0 LIMITATIONS

Requirements under sections 5.1 and 7 of this standard are not applicable under the following circumstances:

- 8.1. Vehicles operating on public roads, unless otherwise required by statute.
- 8.2. All new or previously equipped installations must meet the requirements as set out in this standard.

9.0 COMPLIANCE

- 9.1. Full compliance of the Vehicle Beacon Safety Standard is required **by September 15, 2020.**

Document Title	Vehicle Beacon Safety Standard	Revision	5.0
Document ID	EHS-TP001-02	Date	June 5, 2020

10.0 REFERENCE DOCUMENTS

- Highway Traffic Act, R.S.O. 1990, c. H.8
- 10.2. Occupational Health and Safety Act, R.S.O. 1990, c. O.1
- 10.3. Metrolinx Capital Projects Group Construction Safety Management Program (CSMP), Revision 5.2