

Billboards with Electronic Changing Copy (Electronic Billboards)

The current Sign By-law prohibits the display of billboard signs with changing copy sign faces, commonly referred to as electronic billboards.

However, Council has the authority to approve such signs through a variance process. In November 2017, Council endorsed guidelines in which the proposed billboard signs would be evaluated under the variance process. A copy of the guidelines endorsed by Council can be found on the following pages.

All proposed billboards with electronic changing copy must be review through the variance process and approved by Council.

If you wish to apply for a variance to the Sign By-law, please refer to the [How to Apply for a Sign Variance & Sign Variance Process guide here.](#)

**GUIDELINES FOR THE REVIEW OF SIGN VARIANCE
APPLICATIONS FOR BILLBOARD SIGNS WITH
ELECTRONIC CHANGING COPY**

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Guidelines for the Review of Sign Variance Applications for Billboard Signs with Electronic Changing Copy

1. Introduction

A billboard sign with electronic changing copy is a billboard sign that is constructed so that the message or copy can be changed by electronic means. The hardware that displays the sign copy or content is operated by software located on-site or from a remote operations centre located off-site. The content or creative copy displayed on a billboard sign with electronic changing copy is fully changeable. It can be displayed in a static manner as a sequence of individual slides displayed for a fixed interval as in a slide show. The brightness of the sign copy can be set within specific limits and can be adjusted based on the time of day or night as well as ambient light conditions such as a cloudy day or bright sunlight.

The City of Mississauga Sign By-Law 0054-2002 regulates the types of signs permitted in the City. The Sign By-Law makes no provision for billboard signs with electronic changing copy (also referred to as electronic billboard signs) and presently, the City has no set criteria by which to evaluate sign variance applications for these types of signs.

2. Purpose of the Document

The purpose of this document is to establish a set of criteria by which sign variance applications for billboard signs with electronic changing copy will be evaluated. Municipalities generally establish controls to mitigate the impacts of electronic billboard signs on traffic safety, sensitive land uses and on the visual image of the communities in which they are located. Such controls may include the following:

- Identify specific locations and land uses in which billboard signs with electronic changing copy will be considered
- Control views of electronic bill boards from sensitive land uses such as residential zones
- Assess the impact of electronic billboard signs on views, the character and quality of the public realm
- Minimum separation distance between billboard signs with electronic changing copy and sensitive land uses such as residences, open spaces and institutional uses
- Maximum number of billboards with electronic changing copy per site
- Longitudinal spacing between billboard signs with electronic changing copy
- Location of billboards signs with electronic changing copy, relative to traffic control devices and important driver decision points such as intersections
- Maximum height of a billboard sign with electronic changing copy, above grade
- Maximum area of a billboard sign with electronic changing copy
- Minimum duration of message display

- Transition between successive message displays
- Message Sequencing
- Amount of information displayed
- Sign Brightness and Luminance
- Duration of illumination/ Setting times when electronic billboard signs should be turned off
- Sign Animation/motion
- Requirement for Traffic Safety Review Study

3. Guidelines for the Review of Sign Variance Applications for Billboard Signs with Electronic Changing Copy

Sign Variance Applications for Billboard Signs with Electronic Changing Copy shall be reviewed with regard to their impact on the **character** and traffic safety of the surrounding and planned context in which they are proposed.

The following guidelines and requirements will be applied in the review of Sign Variance Applications for Billboard Signs with Electronic Changing Copy:

3.1. Waiver

The owner of the property upon which a billboard sign with electronic changing copy is installed shall execute a waiver form releasing the City and Road Authority from liability and shall further indemnify the City and Road Authority against any claim, action or process for damage and/or injury that arises as a result of the installation or existence of the billboard sign. The City of Mississauga will provide the required wording for the waiver.

3.2. Location

Billboard Signs with Electronic Changing Copy shall only be considered wherever billboard signs are permitted in accordance with Sign By-Law 54-02 (See Table 4, Page 19 of Sign By-Law 54-02) and in the following areas of the City:

- Public Squares in the Downtown Core
- Public Squares within the Cooksville 4 Corners
- Public Squares within Major Nodes
- Specific areas of the City, deemed by the City to be locations in which electronic billboard signs are seen as key elements that contribute to the character and vibrancy of the area

3.3. Urban Design Impact Assessment

Each Sign Variance Application package for a billboard sign with electronic changing copy shall include an urban design impact assessment of the proposed sign on the

views, visual quality and character of the existing and planned surrounding context.
(See Appendix C for Terms of Reference)

3.4. Sign By-Law 54-01

The provisions of Sign By-Law 54-02 with regard to Billboards and as shown on Table 4, Page 20 of Sign By-Law 54-02, shall also apply to Billboard Signs with Electronic Changing Copy except where otherwise stated (See Appendix A).

3.5. Separation Distances, Heights, Setbacks, Maximum Sign Area

Billboard Signs with Electronic Changing Copy shall be positioned relative to one another such that not more than one electronic billboard display shall be visible to an approaching driver at the same time.

Except for 2(a), 2(b) the provisions of Sign By-Law 54-02, Section 20, shall also apply to billboard signs with electronic changing copy.

No part of a billboard sign with electronic changing copy shall:

- Exceed 7.62 m in height; (240-07)
- Be located closer than 7.5 m to the street line; (240-07)
- Be multi-faced
- The maximum sign area of a **billboard** shall be 20 m² per sign face.(240-07)

Notwithstanding the provisions of Sign By-Law 54-02, Section 20, 2(a) and 2(b), no part of a billboard sign with electronic changing copy shall be:

- Located closer than 250 m from another billboard sign on the same side of the street, but this does not apply to billboard signs on opposite sides of grade separated railway crossings
- Located closer than 250 m measured in a straight line from a residential zone

3.6. Location of billboard signs with electronic changing copy, relative to traffic control devices and important driver decision points

- Where the posted speed limit on a road is less than 80 km/hour, a billboard sign with electronic changing copy shall not be erected within 120 m of a **major traffic sign** or **driver decision point**
- Where the posted speed on a road is 80km/hour or greater, an electronic billboard sign with changing copy shall not be erected within 250 m (820.21 ft.) of a **major traffic sign** and 500 m (1,640.42 ft.) of a **driver decision point**

Driver decision points include, intersections, on ramps, off ramps, interchanges, merge areas, right/left turn lanes and close to traffic signals, toll plazas, pedestrian

crossings, rail crossings, work zones, where the cognitive demands on drivers are greatest.

3.7. Minimum Message Display Duration

Generally, bright lights and visual change, both of which are associated with **electronic billboards**, can draw the eye to a stimulus that is brighter than its surroundings. Bright lights and visual change can also draw the eye to a stimulus that exhibits movement or apparent movement. In addition, the Zeigarnik Effect suggests that drivers will focus longer on a display in which the message changes, in an effort to “complete” the viewing experience. To minimize these potentially distracting effects, the minimum display duration on an electronic billboard sign, should be set to reduce the possibility that the approaching driver will be able to see more than one display.

- The minimum display duration of a billboard sign with electronic changing copy shall be 10 seconds

3.8. Transition between successive displays

The transition between successive displays on a billboard sign with electronic changing copy shall appear seamless and imperceptible to approaching drivers.

- The maximum interval between successive displays on a **billboard sign with electronic changing copy** shall be 0.1 second.
- There shall be no visual effects or **animation** of any kind, including, but not limited to, **fading, dissolving, blinking** or the illusion of such effects, during the message transition or interval between successive displays.

3.9. Message Sequencing

When a single message or advertisement is divided into segments and presented over two or more successive display phases on a single electronic billboard or across two or more billboards, it is described as **Message Sequencing**. This objective of this type of advertising is to capture and hold the viewer’s attention throughout the time or distance required to complete the message.

- **Billboard Signs with Electronic Changing Copy** shall not use **message sequencing** or **text scrolling** of any kind, over successive display phases on a single billboard or across multiple billboards

3.10. Amount of Information displayed

It takes approximately one second for a road user to read one word. The number of words displayed on a billboard sign with electronic changing copy shall not be greater than the number of seconds required for the duration of the message display. The

height of each character on the message display shall be sufficient to ensure that the message is clearly legible over the entire viewing distance.

- Interactive billboard messages that permit, support or encourage interactive communication with drivers in real time shall not be permitted. These include **billboard signs with electronic changing copy** that respond to text messages, phone calls or e-mails from passing drivers or that request immediate response by text, phone, e-mail etc.

3.11. Sign Animation

Animation refers to any motion in the advertisement, including video, special effects within a single **frame** and transition, movement and rotation between successive **frames**.

- There shall be no **animation**, flashing movement or appearance of movement on a billboard with electronic changing copy, except where the billboard sign with electronic change copy is not visible from any vehicular road way.

3.12. Sign Brightness and Luminance

Brightness is the perceived intensity of a source of light. It is the appearance of light to the viewer. **Luminance** is the amount of light leaving a surface in a particular direction or, the amount of light that is deflected off a surface. Sign Brightness is a function of sign luminance, the background against which the sign is viewed, the driver's age, level of adaptation of the eyes, and atmospheric conditions such as fog. Brightness can be measured as luminance, in candelas per square m (cd/m^2) or illuminance in foot-candles (fc). Luminance is the amount of light that is emitted from a surface, while illuminance is the amount of light falling upon a surface. The human eye is drawn to the brightest objects in a field of view and this is generally referred to as the "moth effect". A brightly illuminated electronic billboard sign could draw a driver's attention away from the road, other vehicles and traffic devices. This is of particular concern at night time, dusk or dawn and during periods of inclement weather.

The maximum luminance level for a billboard sign with electronic changing copy shall be:

- $5000\text{cd}/\text{m}^2$ from sunrise to sunset (One Nit = One Candela per m^2 (cd/m^2))
- $300\text{cd}/\text{m}^2$ from sunset to sunrise (One Nit = One Candela per m^2 (cd/m^2))
- The maximum illumination level for a billboard sign with electronic change copy shall be 0.3 lux above ambient light levels (One Lux = 0.093 foot-candles (fc))
- All billboard signs with electronic changing copy shall be equipped with ambient light sensors and automatic dimmers that control the light output relative to ambient conditions

- Electronic billboards signs shall be illuminated between the hours of 5:00 a.m. and 12 mid-night only each day.

To measure **illumination**, the International Sign Association (2011) has provided the following equation to determine the distance away from the billboard sign, at which the measurement shall be taken:

- Measurement Distance = Square Root of (Sign Area (m²) x 100)

4. Definitions

Animated Sign

A sign that uses motion, the illusion of motion, light changes or colour changes achieved through mechanical, electrical or electronic means

Billboard Sign

“Billboard Sign” means an outdoor sign that advertises goods, products, or services that are not sold or offered on the property where the sign is located, and is either single faced or double faced.

Brightness

The visual sensation experienced by an observer. It is affected by the luminance of the sign, size of the sign, contrast, the viewing position and individual characteristics of the observer

Character

The aggregate of the features including the attributes of the physical, natural and social dimensions of a particular area or neighbourhood

Compatible

That which enhances an established community and coexists with existing development without unacceptable adverse impact on the surrounding area

Context

An area that is within a 250 m (820.21 ft.) radius of the centre point of the location of the proposed billboard sign with electronic changing copy

Copy

The graphic content and message of a sign surface

Double-Faced Sign

A sign having two (2) sign faces of equal area and proportions which are located exactly opposite each other on the sign structure

Driver Decision Points

Crucial areas where a driver's attention must not be distracted from the task of safely navigating the roadway, including but not limited to intersections, pedestrian crossings, rail crossings, on/off ramps, toll plazas, work zones, traffic lights, traffic signs, traffic signals and other traffic control devices etc.

Electronic Changing Copy Sign

A sign constructed so that the message or copy can be changed by electronic means

Enhance

To complement and assist in furthering the aesthetic and intrinsic value of a neighbourhood, site or structure

Frame

A complete static display screen on a billboard sign with electronic changing copy

Glance Duration

The length of time for which a driver looks at a sign

Glance Frequency

The number of glances made by a driver at a sign

Height

The vertical distance measured from the average elevation of the finished grade immediately below a sign to the highest point of the sign and includes any support structure

Illuminance

The amount of light falling upon a surface

Landmark

A building, object or feature of a landscape, neighbourhood or the City that is easily seen and recognized from a distance, especially one that enables people to establish their location

Luminance

The amount of light that is emitted by or reflected from the surface of a sign

Lux

The metric unit of measure for illuminance
One Lux = 0.093 foot-candles

Major Traffic Signs

All regulatory traffic signs

Regulatory traffic signs give directives that must be obeyed

Message Duration

The length of time that a static image or message is displayed on a digital sign face

Message Sequencing

The use of a sequence of displays and messages as part of a single advertisement

Multi-Faced Sign

A ground sign having more than two (2) sign faces up to a maximum of four (4) faces, each face being of equal area and proportion to the other

Sign

Any surface, structure and other component parts, which are used or capable of being used as a visual medium to attract attention to a specific subject matter for identification, information or advertising purposes and includes an advertising device or notice

Sign Area

The entire area of a sign face

Sign Face

The entire area of the surface of a sign including the border or frame together with any material forming an integral part of the background of the display or used to differentiate the sign from the backdrop or building against which it is erected

Streetscape

The character of the street, including the street right-of-way, adjacent properties between the street right-of-way and building faces. Thus, the creation of a *streetscape* is achieved by the development of both public and private lands and may include planting, furniture, paving, etc.

5. References

<http://www.mississauga.ca/file/COM/signcorrection2009.pdf>

By-Law 15892 – Text amendments to Edmonton Zoning By-Law for Outdoor Signs

Transportation Association of Canada: Digital and Projected Advertising Displays: Regulatory and Road Safety Assessment Guidelines, March 2015

<https://www.nanaimo.ca/assets/Departments/Current~Planning/LED~Sign~Review/2009Sep30MOTInformationPaper.pdf>

British Columbia Ministry of Transportation Information Paper: Electronic Billboards, September 30, 2009

Planning and Design Review of Illuminated & Electronic Signs by Martin Rendl Associates, July 2013

**Safety Impacts and Regulations of Electronic Static Road Side Advertising Signs
Technical Memorandum #1 – Current Research Literature Review by CIMA for the City of Toronto**

Roadside Advertising Guide, Edition 1.2, 2 August 2013, Queensland Government
<http://creativecommons.org/licenses/by/3.0/au/>

6. Appendices

APPENDIX A

TABLE 4: BILLBOARDS, SIGN BY-LAW 54-02

Use	Maximum number	Maximum Sign Area	Maximum height	Minimum Setbacks
Shopping Centre Office Building Hotel Service Station Motor Vehicle Dealership	1 for each property where there is no ground sign	20.0 m ² per sign face	See Section 20 of Sign By-Law 54-02	See Section 20 of Sign By-Law 54-02
Individual Free-Standing Industrial Establishment 1	1 for each property where there is no ground sign	20.0 m ² per sign face	See Section 20 of Sign By-Law 54-02	See Section 20 of Sign By-Law 54-02
Vacant Industrial Property 1	1	20.0 m ² per sign face	See Section 20 of Sign By-Law 54-02	See Section 20 of Sign By-Law 54-02
<p>Notes: 1 Notwithstanding subsection 17 (5), no person shall erect a sign in an Employment zone that is visible from any land zoned for residential uses and located between Eastgate Parkway and Rathburn Road East.</p>				

APPENDIX B**SECTIONS 5(1), (2), (3), (4), (6) OF SIGN BY-LAW 54-02****5. APPLICATION FOR A SIGN PERMIT**

- (1) All signs shall comply with all other applicable City By-laws and all other applicable law. All signs shall be erected and designed in accordance with the requirements of the Ontario Building Code Act, as amended.
- (2) Every applicant for a sign permit shall complete a sign permit application provided by the Building Division of the Planning and Building Department, submit all necessary plans and drawings, and pay all applicable fees as set out in the Fees and Charges By-law.
- (3) Where the sign permit application meets all the requirements of this By-law and any other applicable laws, a sign permit shall be issued by the Commissioner.

(4) Sign Permit Information

All plans and drawings accompanying a sign permit application for a permanent sign shall be provided in duplicate and shall contain the following information:

- (a) a key plan showing the general location of the land on which the proposed sign is to be located and the nearest major intersection;
- (b) a plan of the premises drawn to scale showing all measurements in metric;
- (c) the municipal address and legal description of the premises;
- (d) the existing or proposed use of the premises;
- (e) the zoning category of the premises;
- (f) the location of all existing buildings and their entrances;
- (g) the location and dimensions of the frontage and all boundaries of the premises on which the sign is proposed to be erected;
- (h) the location of the proposed sign on the premises;
- (i) details of the sign drawn to scale, including dimensions, sign area and any other information as may be required to determine compliance with this By-law;

- (j) other information as determined by the Commissioner with respect to the building including architectural and structural drawings as may be necessary to determine if the building is structurally capable, under the Ontario Building Code, of supporting the sign or advertising device; and
- (k) authorization of the owner of the premises on which the sign is to be erected or displayed.

(6) Ground and Billboard Sign Permits

In addition to the information required under subsection 5 (4), all plans and drawings accompanying an application for a ground or billboard sign permit shall contain the following information:

- (a) the location of any existing structures, above ground utilities, underground utilities, underground municipal services, parking areas, walkways, driveways, loading areas, vehicular access and egress points, billboard signs and ground signs on the premises;
- (b) the identification by location, description, dimension and ownership of any existing or proposed easements or rights-of-way over the land and premises;
- (c) the location of all landscaped areas;
- (d) the location of any existing deciduous trees measuring greater than a 6 cm circumference by caliper and any existing coniferous trees measuring greater than 150 cm in height;(240-07)
- (e) identification of adjacent land uses, zoning, buildings, structures, billboard signs and ground signs;
- (f) the setback of the proposed billboard sign from the property line of adjacent residential lands;
- (g) the setback of the proposed billboard sign from other billboard signs within 200 metres of the proposed billboard sign; and (240-07)
- (h) the setback of the proposed sign from the property line.

APPENDIX C

TERMS OF REFERENCE FOR URBAN DESIGN IMPACT ASSESSMENT OF BILLBOARD SIGNS WITH ELECTRONIC CHANGING COPY

1. Purpose

The purpose of the urban design impact assessment is to evaluate the visual impact of a proposed billboard sign with electronic changing copy on the **character** of the **context** within which it is to be located. This also includes an assessment of the impact on the use of the spaces from which it will be visible and on the physical elements that make up those spaces including trees, streetscape elements, public art, sidewalks, parks and open spaces, amenity areas etc. Where applicable, the urban design impact assessment will specify mitigation measures to eliminate any negative impacts in order to achieve a billboard sign that is **compatible** with the context in which it is to be located.

2. Required Information

In addition to the information required under subsection 5 (4) and 5 (6) of Sign By-Law 54-02 (see Appendix B), the following information shall be provided as part of an urban design impact assessment:

2.1. A **context** map/plan drawn to a minimum metric scale of 1:500 that shows the **context** around the proposed sign. The **context** shall be defined as an area that is within a 250m radius of the centre point of the location of the proposed billboard sign with electronic changing copy

2.2. The **context** plan shall show all existing features including the following:

- All existing and approved developments
- Sensitive land uses including but not limited to residential buildings, residential uses within mixed use developments, schools, hospitals
- Landmark buildings and features
- Street names, roads and highways
- Street trees, landscape areas, sidewalks and all existing features on the boulevards
- Street furniture, light standards, traffic lights, bus stops and shelters
- Existing and approved billboard signs and ground signs
- Public art installations
- Cultural Heritage Resources including Heritage designated and listed buildings, parks, monuments and features of historical significance
- Public art installations
- Public and private open space and amenity areas
- Significant views and vistas where applicable

2.3. Provide accurate 3D images of the proposed billboard sign with electronic changing copy within the **context** as defined above. The images shall be taken from a minimum of four different directions identified on the context plan.

2.4. Provide an Urban Design Impact Summary which shall include the following:

2.4.1. A description of the **character** of the context including the scale and range of building heights, **character** of the **streetscape**, land uses, significant features such as heritage buildings, important views and vistas, natural features, public art, architectural style etc. This description shall be supported by images and any other illustrations.

2.4.2. A written analysis of the merits of the proposed billboard sign as it relates to the scale and **character** of the **context**, its impact on existing conditions and how it will enhance the urban design and visual image of the existing and planned **character** of the **context**. The written analysis shall also demonstrate how the proposed billboard signs with electronic changing copy satisfactorily address the guidelines especially with regard to identifying and eliminating negative impacts on sensitive land uses including residential uses within areas designated for mixed use and residential uses in mixed use developments.



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Application

- Complete Parts 1 and 3 of the "Application for Sign Permit/ Sign Variance Form", including signature.
- Prepare a letter of outlining the rationale for the variance and details as to why it is not possible to comply with the Sign By-law.
- Upload the application form and letter of rationale into the documents folder in ePlans. If applying for an electronic billboard, additional information is required, please visit the information page here (url TBD).
- Complete the Applicant Resubmit task in ePlans to ensure your submission has been sent.
- Attend the Planning and Building Customer Service Counter, 3rd floor, 300 City Centre Dr., Mississauga and pay the Sign Variance Fee.
- The Sign Variance fee is \$1226* or \$1500* if the sign is installed. Fees are nonrefundable.

*Fees are subject to change.