

MMAH Guidance for Assessing Alternative Solutions under Ontario's Building Code for the Winter Use of Patio Tents

At the December 1, 2020 Zoom video-call between LMCBO and MMAH several issues related to the use of patio tents during winter months were raised. These issues included:

- 1) Application of tents under the Building Code
- 2) Building Code intent regarding wintertime use of tents
- 3) Structural sufficiency of tents in the winter
- 4) Fire safety requirements, including 3 m setbacks
- 5) Professional design of tents, including for winter use

The information below is provided for your consideration and is not legal advice. As CBOs appointed under the BCA and Building Code you are empowered under the BCA to make decisions on enforcement of the BCA and Building Code. You may wish to consult your municipal solicitors to assist you in the application of this information. If your municipal solicitors would like to discuss potential approaches with legal counsel at the Ministry, they can reach out to Stephen Lockwood (stephen.lockwood@ontario.ca) or Andrea Taylor (andrea.taylor2@ontario.ca).

In interpreting the BCA and Building Code requirements when addressing the issue of patio tents for wintertime use, you may wish to consider the unique nature of the problem, whether short-term solutions are available as a temporary measure and whether the short-term solutions may help to further the public safety purpose of the BCA and Building Code.

1) Application of Tents Under the Building Code

Building Permit Requirements for Tents

The following describes building permit requirements for tents:

- Tents are buildings if they meet the definition of building in s. 1 of the BCA (i.e. have a roof, floor or wall and occupy an area greater than 10 m²)
- Tents require a building permit and must comply with the Building Code unless the tent or group of tents meets all three of the following criteria:
 - are not more than 60 m² in aggregate ground area,
 - are not attached to a building, and
 - are constructed more than 3 m from other structures (based on Sentence 1.3.1.1.(5) of Division C)
- Tents that meet all three of the criteria above do not require a building permit and are not required to comply with the Building Code

Scope of Subsection 3.14.1. regarding Tents

The requirements of Subsection 3.14.1. of Division B are intended to be limited to certain types of tents. For instance, the word “tent” as used in the Code is intended to refer to a temporary shelter which is used at an open-air event such as a fair or an exhibition. A tent will normally be constructed of a fabric cover held up by a framing system with poles and anchored to the ground by ties. The requirements for tents, however, are not intended to be applied to fabric structures located on buildings such as awnings, canopies, curtains, etc. (See Appendix Note A-3.14.)

Subsection 3.14. is silent as to whether tents may only be erected and occupied during specific times of the year, i.e., it does not preclude the use of tents in the winter.

Alternative Solutions if Division B of the Building Code Cannot be Met

In cases where a building permit is required but it may not be possible for the applicant to meet all the applicable requirements in the manner set out in the Building Code, the applicant should be encouraged to work with their Chief Building Official of the local municipality to achieve compliance with the Building Code through an alternative solution. Alternative solutions must still achieve the same level of performance as the specific requirements set out in the Building Code. Applicants are responsible for proposing alternative solutions.

2) Building Code Intent Regarding Wintertime Use of Tents

Tent use in Winter

Under Subsection 3.14. of the Building Code tents are exempt from most of the remaining requirements of Division B, Part 3. They are also exempt from the structural requirements of Division B, Part 4. In addition, Appendix Note A-3.14. refers to the use of tents in fairgrounds which may be construed as typical for operation in warmer weather. However, despite these provisions, the Building Code does not explicitly prohibit tents from being erected and used in the winter - provided they are safe and possess the necessary characteristics to perform their intended functions under the expected conditions (see Section 3 below).

Other Regulatory Requirements

Other applicable requirements to construct tents may include municipal zoning by-laws, professional design by an engineer (see Section 5 below), standards set by the Alcohol and Gaming Commission of Ontario, and public health requirements. In regards to the public health requirements MMAH recommends:

- That any individual or organization interested in utilizing tents for the purposes of enhancing outdoor dining throughout the winter first consult with their local public

health unit to ensure that these structures meet the appropriate health and safety requirements and guidelines related to mitigating the spread of COVID-19.

- That individuals and organizations refer to the requirements outlined in the Reopening Ontario (A Flexible Response to Covid-19) Act emergency orders, which include:
 - O. Reg. 364/20: RULES FOR AREAS IN STAGE 3, found here: <https://www.ontario.ca/laws/regulation/200364>
 - O. Reg. 263/20: RULES FOR AREAS IN STAGE 2, found here: <https://www.ontario.ca/laws/regulation/200263>

In addition, the Building Code does not address building maintenance and other operational issues. Other legislation may apply to building maintenance and operation such as the Fire Code, municipal property standards by-laws, TSSA, ESA, etc.

3) Structural Sufficiency of Tents in the Winter

Tents and Structural Design to Resist Environmental Loads (snow, rain and wind loads) and their effects

All building materials and systems need to be designed to meet their intended functions safely. Article 1.2.2.1. of Division A requires all materials, appliances, systems and equipment installed to meet the requirements of the Code must possess the necessary characteristics to perform their intended functions when installed in a building.

- Based on Sentence 3.14.1.1.(1), tents are exempt from complying with the structural requirements in Part 4 of Division B, including the snow load requirements in Subsection 4.1.6. and the restrictions on snow removal in Sentence 4.1.6.14.(1).
- However, the Building Code establishes minimum standards that a building must meet - it is the responsibility of the designer/building owner to design and maintain the building/structure to fulfill safely the expected service conditions
 - For example, tent operators need to ensure their tents are capable of supporting all expected environmental loads that they may be subjected to so as to limit property damage and physical injury to building occupants and the general public outside the tent. Tent operators will generally need to engage professional engineers in the design and review of the tents for winter use. (See section 5 below.)
 - Consideration should be given to additional loads from drifting snow accumulation on tents and from sudden large impact loads from snow sliding off roofs of adjacent buildings onto tents.
- Where tents are not designed to withstand specified snow loads and other snow loading effects, consideration should be given to the availability of mechanical, thermal, manual or other means of snow removal, given Sentence 4.1.6.14.(1) provisions would not apply. It may be reasonable to consider the provision of a “snow watch” as a means to achieve snow removal.
- Tent structure design should follow good engineering practice such as described in CSA S367 “Air-, cable-, and frame-supported membrane structures”.

- Consideration should be made for adequacy of anchorage and bearing conditions for supporting the structure.

One of the main goals of the Code is to ensure public safety (health, fire protection, accessibility and structural sufficiency) in and around buildings as it applies to the various intents, objectives and functional statements of the Code.

4) Fire Safety Requirements, Including 3 m Setbacks

The regulation of tents in the Building Code has historically, and currently, remains predominantly focussed on fire safety. Items to consider with respect to the 3 m clearance requirements and other fire safety provisions under Subsection 3.14.1. are as follows:

- The Code outlines distance requirements between tents and other structures in Article 3.14.1.4.:
 - Tents cannot be erected closer than 3 m to the property line
 - Tents cannot be erected closer than 3 m to other tents, buildings or other structures on the same property,
 - The only exception is that tents can be closer than 3 m to other tents, buildings or other structures if the encroachment is a walkway between a building and the tent meets certain criteria; the tent is not occupied by the public and does not create a hazard to the public, the tents are located on fair grounds or similar open spaces, and they do not create a hazard to the public
- The intent of the 3 m clearance is to exempt tents from the application of Subsection 3.2.3. if certain conditions are met to provide an acceptable level of protection. This is to limit the probability that:
 - a fire in a tent will spread into another building on the same property, which could lead to harm to persons in the building, and
 - a fire in a building will spread to a tent, which could lead to harm to persons in the tent.
- Alternative solutions can be proposed to this requirement – they must achieve the level of performance required by the Building Code with respect to retarding the effects of fire on areas beyond its point of origin and limiting the probability that adjacent buildings will be exposed to an unacceptable risk of damage due to fire caused by fire or explosion impacting areas beyond the building of origin.
- CBOs may want to consider the following when evaluating alternative solutions related to the fire safety requirements for tents and the associated restaurant building:
 - risk of fire ignition in the tent (i.e. electrical equipment, heating appliances, smoking materials, open flames, temporary wiring),
 - combustible materials in close proximity to the tent and/or building or property line,
 - existing unprotected openings (windows, doors, etc.) of the building in relation to their distances from tents,

- use of flame-resistant material to limit flame spread,
- existing construction of the exposing building face (combustible or non-combustible cladding),
- length of time the tent is proposed to be used for,
- response time for firefighters (access route for fire department),
- occupant load within the tents (Covid-19 public health restrictions have typically limited occupant loads in restaurants)
- how quickly can occupants egress/exit from the building/tent (i.e. travel distance, number and configuration of exits, occupant load, clear demarcation path of travel during an emergency, obstructions such as fences or barriers, etc.),
- fire protection systems (i.e. smoke alarms, smoke and CO detectors, emergency lighting, portable fire extinguishers, exterior audible devices)
- fire safety plan (fire watch, conduct more frequent fire inspections)
- CBOs could consider working with the local fire departments to use public education tools to inform restaurant owners of potential fire hazards that may be associated with tents operating in conjunction with restaurants.

5) Professional Design and General Review of Tents, Including for Winter Use

Building Code Requirements for Professional Design and General Review

The Professional Engineers Act (PEA) sets requirements for when a professional engineer is required (discussed below). In addition, for tents otherwise exempt from professional design under the PEA, the Building Code also specifies some additional requirements for professional design and general review.

- Under Sentence 1.2.1.2.(5) of Division C, the supporting framing structure and anchorage system for a tent occupying an area greater than 225 m² must be designed by a professional engineer.
- Under Sentence 1.2.2.1.(7) of Division C, the construction of a supporting framing structure and anchorage system for a tent occupying an area greater than 225 m² must be reviewed by a professional engineer.
- Additionally, the Professional Engineers Act requires professional design and general review for tents even where they are under the size identified by Building Code provisions, depending on the use of the tent.

PEA Requirements for Engineering Design and/or Review of a Tent or Group of Tents Used as a Restaurant

In addition to the Building Code requirements regarding tents, it is important for CBOs to familiarize themselves with how engineering design and review requirements for tents are addressed under the PEA. Section 12 of the PEA, among other things, establishes the scope of professional design requirements for buildings as well as setting out exemptions to those requirements. Generally, under s. 12 all buildings require design by a professional engineer unless they are specifically exempt. Assembly occupancies,

of any size, are not exempted from the requirements under the PEA for design by a professional engineer.

It is important for CBOs to consider the occupant load and occupancy of the tent. Under the Building Code, depending on their size, restaurants, including those within tents, are typically classified as Assembly Occupancies, which triggers the requirement for design (under the PEA) and general review (under the PEA and Building Code) by a professional engineer.

Under Article 3.1.2.6. of the Building Code, smaller restaurants where there are not more than 30 persons consuming food or drink are permitted to be classified as a Group E (Mercantile Occupancy). However, Article 3.14.1.1. exempts tents from complying with Division B provisions unless specific requirements are addressed in Subsection 3.14.1. This would include the permission in Article 3.1.2.6. to classify restaurant tents as mercantile occupancies. As well, the permission to classify a restaurant of 30 or less as a mercantile occupancy is not contained in s. 12 of the PEA, meaning it would appear that all tents under the PEA used as restaurants would be classified as assembly occupancies (see definitions in s. 12 (8) of the PEA).

Taken together, the factors described above would indicate that restaurant tents regardless of their size, occupant load or occupancy likely require professional design under the provisions of the PEA and general review under the PEA and Building Code.

Clause 8(2)(b.1) of the Building Code Act provides CBOs with the authority to refuse to issue a permit for a building where the PEA requires the building be designed by an engineer but the building has not been designed by an engineer.

As a self-regulating body, Professional Engineer Ontario is responsible for the administration of the PEA. Clarification and confirmation on the requirements for engineered design and how general review is to be carried out should be sought from Professional Engineers Ontario.

Regardless of whether the PEA mandates the above, involvement of professional engineers is encouraged in terms of providing acceptable levels of safety for tents used in the winter.