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PETER J. OSTROSKEY
STATE FIRE MARSHAL
DEPARTMENT OF FIRE SERVICES

Memorandum

To: Building Inspectors and Fire Prevention Officers

From: Layla D'Emilia, Commissioner, Division of Professional Licensure

Peter Ostroskey, State Fire Marshal, Department of Fire Services

Date: August 12, 2020

Re: Guidance for Safety Considerations for Schools Utilizing Tent Temporarily

Due to the State of Emergency related to COVID-19, school districts are exploring reopening plans. Some options considered include utilize temporary tents for classroom, cafeteria, or other school programming space.

Building officials do not have authority to enforce the criteria stipulated by the Massachusetts Department of Education and the Boards of Health. However, it is prudent that all local officials (i.e., fire chiefs, local board health agents) collaborate to ensure safe occupancy for schools and compliance with building and fire codes. Local officials should also be working with school departments to ensure understanding of these requirements and to help school districts prepare reopening plans, which comply with the applicable codes. This guidance assumes that cooking will occur within the brick and mortar building. If cooking will be conducted outside, additional health and fire safety provisions may apply.

Permitting of Temporary Structures

Building officials have the authority to grant a permit for temporary structures, such as tents, which conform to the building code for a period not exceeding 180 days (780 CMR Section 108, as amended). Tent structures erected for this period shall comply with the International Fire Code (2015 IBC Section 3103.1).

- 1. Building permits apply when the tent exceeds 400 square feet and intended for the gathering together of 10 or more persons. [IFC Section 3103.1.2]
- 2. A detailed site and floor plan is required for tents having an occupant load of 50 or more. Floor plans must delineate the means of egress, the tent location on the site, occupant load, arrangement of seating, and the location and type of heating and electrical equipment. [IFC Section 3103.6]

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When contemplating construction of fixed barriers to delineate an area for tents, a permit may be required per 780 CMR 105.1 since a barrier could be considered a structure and might restrict free egress. In many cases, barriers may be constructed to provide a protective barricade between functions inside the tent and parking areas.

The school should ensure that tent locations do not obstruct fire department access lanes or egress paths from adjacent buildings, and that the occupant load of the outdoor tents does not exceed the capacity of indoor plumbing fixtures.

Temporary Tents

Tent materials must be compliant with fire resistance ratings tested to NFPA 701 [IFC Section 3104.2] and the tent must be compliant with the provisions of IFC Chapter 31.

- 1. Tents must be erected at least 20 feet from lot lines unless the condition conforms to one of the two exceptions. [IFC Section 3103.8.2]
- 2. Egress, exit signage, and illumination shall comply with IFC Section 3103.
- 3. Smoking is prohibited and "No Smoking" signs shall be conspicuously posted per IFC Section 3104.6.
- 4. Open flame, including grills or cooking appliances are not permitted within 20 feet of the tent structure [IFC Section 3104.7]. Coordination with the fire department is necessary for the approval and permitting of these appliances, fuel storage and use.
 - a. Fuel storage is under the jurisdiction of the local fire department, including propane and common fuels used for patio heaters and grills. [527 CMR 1.00: 1.12.8.50]

Occupancy

The building official determines occupancy by applying 780 CMR or IFC Section 1004, including Section 1004.5 for outdoor seating and Table 1004.1.2 for seating contained within a tent, on a deck, or within barriers. Occupancy can be based on the actual number of seats available, if approved by the building official per 780 CMR or IFC Section 1004.1.2. Places of assembly over 50 people are required to have a posted occupant load [780 CMR Section 1004.3].

Means of Egress

Means of egress from temporary tents must comply with IFC Section 3103.12.

- 1. Exits shall be spaced at approximately even intervals around the perimeter of tents and located so no point is more than 100 feet from an exit. [IFC Section 3103.12.1]
- 2. Tents shall not have less than one (1) exit and not less than the number required by IFC Table 3103.12.2 based on the occupant load.
- 3. Exit openings shall remain open and unobstructed unless a flame-resistant curtain compliant with IFC Section 3103.12.3 is provided.
- 4. Exit doors shall swing in the direction of travel. [IFC Section 3103.12.4]

- 5. Aisles shall be smooth-surfaced and unobstructed, and at least 44 inches in width. If the occupant load served by an aisle exceeds 50 people, the width must be increased in accordance with IFC Section 3103.12.5.
- 6. Exit signs are required at doorways when the exit serves an occupant load of 50 or more people. [IFC Section 3103.12.6]
- 7. Exit sign illumination and egress lighting shall comply with IFC Sections 3103.12.6.1 and 3103.12.7, respectively.

Means of egress from tents must comply with the provisions of 780 Chapter 10. If outdoor spaces are chained or fenced to prohibit free egress, adequate egress width is required from those spaces through compliant openings or gates equipped with appropriate hardware.

- 1. Egress capacity of exits must comply with 780 CMR Section 1005.3.
- 2. Doors and gates with latches, serving 50 or more people, must be provided with panic or fire exit hardware. [780 CMR 1010.1.10]
- 3. Aisles between and around tables and chairs must comply with 780 CMR Section 1029.
- 4. Tables and chairs must be arranged so as not to obstruct egress from neighboring buildings or public ways.
- 5. Exit marking and illumination must comply with 780 CMR Sections 1013 and 1008, respectively.

Outdoor Patio Heaters

Outdoor patio heaters are regulated by 527 CMR 1.00. These may be portable, utilizing LPG containers, or permanently piped to the building (which is regulated by 248 CMR).

- 1. Patio heaters must be used only in well-ventilated areas away from combustible materials. They are not permitted within tents with enclosed walls. Patio heaters with open or exposed flames are not permitted inside or within 20 feet of tent per IFC Section 3104.7. Coordination with the fire department is necessary for the approval and permitting of these appliances, fuel storage and use.
 - a. Fuel storage is under the jurisdiction of the local fire department, including propane and common fuels used for patio heaters and grills. [527 CMR 1.00: 1.12.8.50]
 - b. Electrical heating equipment is permitted within a tent if compliant with 527 CMR 12.00 (NFPA 70). [IFC Section 3104.15.7]
- 2. Patio heaters shall not be located within 5 feet of exits. [527 CMR 1.00: 69.3.11.1.3]
- 3. LPG storage in excess of 42 lbs. (two 20 lbs. grill-sized tanks) requires a permit from the local fire department. [527 CMR 1.00: 1.12.8.50]
- 4. Fuel storage within buildings must be limited in accordance with 780 CMR and 527 CMR 1.00: Table 60.4.2.1.1.3. Outdoor storage areas must comply with 527 CMR 1.00: Chapter 60 and Chapter 66 or 69 as applicable.

Interior Reconfiguration

When changes are made within the building such as reconfiguration of classrooms, hallways, or the use of rooms for new purposes, it is critical to ensure that these changes maintain the level of fire and life safety required by the building and fire codes. Reconfiguration of space, addition of barriers, and changes to egress, may require a building permit per 780 CMR 105.1.

- 1. Non-porous barriers shall not be installed within 18" of the bottom of automatic sprinkler heads. [2013 NFPA 13: 8.5.5.3]
- 2. Non-porous membrane barriers shall be flame resistant in accordance with NFPA 701. [527 CMR 1.00: 12.6.2]
- 3. Doors required for fire separation may not held open in such a manner that they will not close automatically and latch upon activation of the building fire alarm system. [780 CMR Chapter 7 and 527 CMR 1.00: 12.3.3]
- 4. Temporary signage establishing one-way circulation patterns to maintain social distancing must indicate that emergency exiting is allowed in the direction of required egress.
- 5. Means of egress and egress pathways within rooms must comply with the provisions of 780 CMR Chapter 10.
- 6. The repurposing of rooms into additional classrooms space must be evaluated for compliance with fire sprinkler and fire alarm requirements as required by 780 CMR Chapter 9.

Alcohol-Based Hand Sanitizer

Alcohol-based hand sanitizer stations may be provided throughout schools. 527 CMR 1.00 regulates the storage and use of alcohol-based hand sanitizer.

- 1. Storage is based on limitations for flammable and combustible liquids in 780 CMR and 527 CMR 1.00 and is based on the assumption that most alcohol-based hand sanitizer will be considered a Class IB or IC flammable liquid. A permit is required from the local fire department for alcohol-based hand sanitizer in quantities above 10 gallons. [527 CMR 1.00: 1.12.8.40 and 1.12.8.50]
 - a. Up to 120 gallons can be stored within a non-sprinklered building.
 - b. Up to 240 gallons can be stored within a building sprinklered in compliance with 2013 NFPA 13.
 - c. Up to 480 gallons can be stored within a building sprinklered in compliance with 2013 NFPA 13 and within approved storage (rated and ventilated flammable cabinets).
- 2. Wall-mounted or free-standing alcohol based hand sanitizer dispenser locations are regulated by 527 CMR 1.00. Whereas some installations may be temporary and portable, it is critical that building owners understand the provisions associated with their safe installation and use if they are moved from their original location.

- a. The maximum capacity of dispensing units in areas open to corridors is 41 oz. (0.32 gal or 1.2 L).
- b. The maximum capacity of dispensing units in rooms or suites of rooms and separated from corridors is 67 oz. (0.53 gal or 2.0L).
- c. The minimum separation distance between dispensers is 48 inches. [527 CMR 1.00: 10.22.1(2)]
- d. No dispensers shall be located above, within 1 in. to the side of, or within 1 in. below an ignition source, such as an electrical outlet, or open flame. [527 CMR 1.00: 60.5.2(6)]
- e. Dispensers may be installed directly over carpeted floors only in sprinklered areas of the building. [527 CMR 1.00: 60.5.2(7)].
- f. Dispenser operation must comply with manufacturer's instructions and 527 CMR 1.00:60.5.2(9).

If you have questions or concerns relating to a school within your jurisdiction undergoing changes or renovation in response to COVID-19, please do not hesitate to contact the district state building inspector (https://www.mass.gov/doc/state-building-inspector-district-assignments/download) or the Office of Public Safety and Inspection 617-826-5236 or the Code Compliance and Enforcement Unit at (978) 567-3375 (business hours), or via email at paul.vigneau@mass.gov for assistance.

Layla R. D'Emilia, Commissioner

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