USE OF TENTS TO SUPPLEMENT DINING SPACE

IN RETAIL FOOD SERVICE ESTABLISHMENTS: A REVIEW

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With the onset of the COVID-19 pandemic in the spring of 2020 came many voluntary and involuntary restrictions on movement of people in social settings. This white paper focuses on the impact these restrictions have had on the retail food service industry in Pitkin County. Among the most controlling decisions that had to be made by medical and public health experts, and ultimately by elected officials was the closure of all food and bar service establishments. As more data was gathered and more success was realized that virus suppression strategies were working to reduce the proliferation of the disease, previously restrictive control strategies were able to be lessened. Included in the softening of restrictions was allowing indoor dining.

In order to have a measurable response to slowly opening sit-down indoor and outdoor dining the number of patrons was limited to a specific number. The criteria determining the number of patrons included social distancing of keeping individuals at least 6 feet apart unless seated during the actual consumption of food. This also included making a hard decision to identify the bar area of an establishment as either a bar with no patron seating, or a dining area with no direct bar service. The differentiation between indoor and outdoor dining was made based on the understanding that outdoor activities offer more protection from contagious viral spread than offered by an indoor venue.

As the pandemic progressed, the impact of complete closure of restaurants and bars resulted in severe economic damage to establishment owners, staff, equipment and food suppliers and others suffering collateral consequences. As data began to show success in viral control as mentioned earlier, creative means began to surface to maximize restaurant opening yet remain compliant with the State of Colorado and Pitkin County Public Health Orders.

Recent ideas to expand seating have included erecting tents next to or attached to existing licensed restaurants. On the surface, this was an innovative idea with promise. It became clear that more research was needed to identify “fatal flaws” and/or boundaries that might present difficulties, problems or prohibitions of this use of tents before business owners committed scarce funds to this approach.

The Public Health interest in supporting outdoor dining is based on advantages of an outdoor setting over an indoor setting. The most significant advantage is the ability for natural or forced air movement through dining areas located outdoors. Dispersal of COVID-19 aerosol contamination using air movement is a proven method to prevent viral spread. This is particularly important as diners talk without wearing

masks. A critical mass of viral material can form an invisible cloud in the absence of proper ventilation. A person breathing in that space for an extended period of time may be at risk.

Unfortunately, an enclosed tent blocks the benefits of outdoor dining and may add other risks. A typical "party tent" converted to an enclosed outdoor dining space will block sunlight (a proven natural method to kill viral organisms) and the side enclosures will block airflow.

For example, tents with a canopy and three or four enclosed sides are considered indoor spaces; indoor dining guidance is applicable to those spaces. A canopy with no sides, three sides or two opposite sides open is considered an outdoor space allowing natural ventilation. In cold environments, open-sided canopy tents for dining may provide challenges to dining comfort and may have limited value. More tent configurations are listed below.

These types of structures are generally not designed for all season use. Good information is lacking about air exchange rate capability and equipment intended to provide the benefit of mechanical ventilation/filtration in tents in various configurations.

Heated tents typically use a heater and a fan to push air to better distribute heat, resulting in air rising toward the top of the tent and then moving around in a circular pattern. This pattern presents a concern of airborne transmission; however, there is not enough information to state this as a fact. In addition, it is important that the source of heat generation is located outside of the tent and a safe distance from the tent material. Only the heat distribution vent should be within the tent.

Research conducted by Pitkin County Public Health resulted in categorizing this discussion into issues such as compliance with: 1) Colorado Retail Food Establishment Rules and Regulations, 2) fire safety codes, 3) building codes, 4) zoning codes and 5) land use codes. In order to offer a beginning discussion of these topics, conversations were held with knowledgeable people in each field. Detailed information was gathered regarding compliance with the Colorado food code. Given what was learned researching this paper, it is important that specific questions about fire, building, zoning and land use be deferred to agencies appropriate to each specialty.

<u>Food Service</u>

What follows is a summary of conversations with the Colorado Dept. of Public Health and Environment (CDPHE) and the City of Aspen Environmental Health Department in October 2020.

Regarding the food code in particular, if a tent is erected near or attached to a licensed restaurant and food is served in the tent, the State of Colorado does not have to be involved. Diners can order off the menu and have staff take orders, serve and bus tables. Diners can place an order, pick it up themselves, and return to their table in the tent. After consuming the food, the diners leave and staff cleans the tables and disinfects the chairs and tables prior to the next seating.

A trigger that will engage the State inspection criteria (by the State if the establishment is in the Town of Snowmass Village, parts of Basalt and Pitkin Co. exclusive of the City of Aspen) or by the City of Aspen Environmental Health Department, is if ANY food is held, prepared or stored inside the tent. Examples are an ice bin used to replenish drinks, food holding tables, a temporary bar, buffet service, etc. If any of these conditions exist or are proposed the State will require a plan review, licensing and inspection prior to allowed use.

It is important to realize the Colorado food code does not prohibit a licensed restaurant from expanding dining into a tent, but compliance with the code is not negotiable.

https://www.colorado.gov/pacific/sites/default/files/DEHS_RetailFd_6CCR10102_RFFC_EffJan2019.pdf

Tent Safety

Safety when using tents for dining requires special attention.

Tents are primarily designed for summer or 3-season use. Tents have a thin layer of canvas/vinyl over an aluminum or similar frame. While it is possible, insulating a tent for winter use requires specialty fabrics and provides installation challenges.

Heating systems inside the tent may need to run 24 hours a day.

Large tent rental comes with expense. Propane or gas used to heat the space can become a large expense. Costs and benefits should be considered in advance, including the cost of tent lease or purchase, heating, and maintenance.

There is not an easy way to mechanically ventilate space inside a tent when sides are down. Fans are used to distribute heat, but not for air exchange or ventilation. Air is generally moved in a circular motion towards the top of the tent. (This is an important realization when understanding aerosol spread of COVID-19 can be dispersed easily by air currents).

Snow load may pose a danger. Careful monitoring of snow buildup and removal will be necessary to maintain structural integrity.

Propane and gas in an environment that is not carefully monitored can result in carbon monoxide buildup or other gas-related risks.

Using tents or similar structures to enhance dining space in the interim during development of more long-term and sustainable responses to the spread of COVID-19 needs careful thought. Initial COVID-19 spread and subsequent viral variants are providing changing challenges. Use of vaccines, masking, distancing, staying home when sick, and personal hygiene remain the most effective action steps to contain the virus.

Should the concept of using tents for dining be considered as an option, due diligence is required. Contact with specialty departments regarding tent safety and placement are critical prior to initiating a rental or purchase.

Tent Use Check List

Research before purchasing or renting a tent for use as a dining venue

Food Safety

- If any food is held, stored or prepared, then plan review, licensing and inspection is required

Tent Safety

- Roofs must be cleared regularly of snow as they are typically not intended for winter use
- Ventilation is uncertain so it is challenging to assess COVID risk, you may be asked to provide information on ventilation/filtration
- The tent may need to be heated 24 hours per day
- Propane is expensive, if a gas source is available that may be less expensive
- Carbon monoxide monitoring is necessary
- For long term use, it is usually cost-effective to buy rather than rent

Fire Safety

- Review the location and proposed use with the local fire authority

Building and Zoning

- Review the location and proposed use with the local building and zoning departments

Land Use Code

- Review the location and proposed use with the local Community Development Dept. for compliance with appropriate land use codes

The following is a partial guidance regarding use of tents for public dining provided by the State of Colorado. The initial guidance issued in 2020 contained standards no longer in use – color-coded dial classifications. Those sections have been omitted from this paper as being no longer relevant.

As Colorado starts to experience colder months, the state is looking for ways to provide guidance for restaurants and events to safely provide temporary structures for people to eat outdoors. Depending on the erection or construction of these spaces, and the available ventilation, they will be considered an indoor or outdoor setting and must follow appropriate requirements. This document outlines the guidance restaurants must follow to provide a safe environment for their customers to eat in these temporary structures. The list below explains the criteria the state uses to classify a setting as indoors or outdoors.

In the table below, a wall is defined as any material type that can reasonably restrict aerosols from passing through may be considered a "wall." For example, a loose, mesh mosquito net is not finely knit enough to reduce airflow and will not stop tiny particles or aerosols. A fabric sheet curtain and a tarp or plastic barrier are considered a wall because the material will prevent aerosols from passing through.

Temporary structure classifications:

4 walls closed with ceiling – Indoor structure.

3 walls closed with ceiling, 1 side open - Indoor structure

2 non-adjacent sides entirely open from side to side and floor to ceiling – Outdoor structure

2 adjacent walls closed and 2 adjacent sides open with ceiling – Indoor structure

2 adjacent walls closed and 2 adjacent sides open without a ceiling – Outdoor structure

Ceilings, roofs, umbrellas, or canopies with no walls - Outdoor structure

Single party structure that allows for complete ventilation between uses (e.g., igloos or bubbles) – Outdoor structure

How does the state determine if a setting is outdoor or indoor?

The state and local health department makes these determinations based on the typical level of ventilation for the setting. Settings that provide air flow comparable to levels of being outdoors, allowing the virus to disperse rapidly and move out of the space are considered outdoor settings. If a setting does not have adequate ventilation, the air will become trapped inside and the virus will recirculate, becoming more concentrated. These are indoor settings.

Outdoor settings have open-air ventilation that allows air movement. Air movement allows droplets and aerosols containing the COVID-19 virus to disperse rapidly to low concentrations, and move out of the space. When there is no air movement, as can be the case in most indoor environments, virus particles are trapped inside the space. The virus then recirculates and the concentration of the virus increases as people continue to breathe out the virus.

In conclusion, work with local public health departments and other regulatory agencies prior to rental or purchase of tents to supplement dining space.