



Red, White & Blue Fire District Standard Operating Policy

Special Event and Canopy Weight Policy

SOP 432

Approved By:

Date:

Last Revision:

10/2026

Next Revision:

10/2028

PURPOSE:

The purpose of this policy is to establish requirements for the safe installation, stabilization, use, and removal of temporary tents and canopies at special events. These requirements are intended to reduce the risk of injury, property damage, and other hazards associated with wind and changing weather conditions.

Summit County often experiences unpredictable weather and strong, gusty, and erratic winds. While tents and canopies provide protection from rain and sun, improperly secured structures can become hazardous during unexpected wind gusts. Strong gusts can develop without warning before, during, or after an event. Participants may experience calm conditions during morning set-up; however, conditions can change significantly by late afternoon and during event break-down.

Set-up and break-down periods are when tents and canopies are particularly vulnerable to wind. Structures must be completely secured as soon as they are erected. At the end of the event, structures must be broken down immediately following the removal of required weights or other approved stabilization methods.

The event organizer is responsible for ensuring that all temporary structures comply with the requirements of this policy. Failure to comply may result in enforcement action, including fines and/or removal of the structure from the event site, as authorized by applicable codes, ordinances, or regulations.

POLICY:

- A. A tent or canopy up to 20'X20' must be weighted down utilizing 40-pound weights on each leg of the tent:
 - a. The weight must be suspended from the top corner of the tent and secured to each leg of the tent.
 - b. The weight must be self-contained and permanently sealed. It must be capable of being suspended.
 - 1. Please see Exhibit A for allowable weights.
 - 2. EXCEPTION: Approved sandbags or weight plates designed by the manufacturer, are allowed.

- c. Items not allowed include but are not limited to:
 - 1. containers of water (open or sealed) other than 55-gallon drums as listed in Section II
 - 2. bags of sand (not designed by the tent/canopy manufacturer)
 - 3. bricks, cinder blocks, rocks
 - 4. gym type weights
 - 5. stakes, etc.
 - d. Tents and canopies shall not be tethered to a fence, light post, bench, trash can, or another fixed object. The tent or canopy shall be self-weighted.
- B. A tent or canopy up to 40' X 40' can be weighed down with four closed 55-gallon water barrels. One water barrel shall be attached to each leg of the tent.
- a. The water barrels shall be attached to the tent using a ratchet-type strap rated for the tension placed upon it.
 - b. The strap must run from the top of the tent through the water barrel.
 - c. The straps shall be in good repair with no physical damage.
- C. A tent or canopy over 40' X 40' shall be engineered to withstand winds of 90 miles per hour (mph) under a 3-second gust and a snow load of 90 pounds per square foot.
- D. Non-standard structures (domes, odd-shaped tents, custom designs) or any structure that requires custom anchoring (e.g., staking or snow and ice anchors) shall require an engineered submittal.
- a. The engineer shall specify the correct attachment points and angles for tie-downs.
 - b. The engineer shall specify whether the tent, canopy, or structure meets the 90-mph wind load under a 3-second gust and the maximum wind load if it does not.
 - c. The engineer shall specify that the tent meets or exceeds the snow load requirement of 90 pounds per square foot. The engineer shall specify the maximum snow load if the structure does not meet the snow load requirement.
 - d. The engineer shall specify the anchor's type, size, and depth.
- E. All trussed structures shall be engineered to meet the wind load requirements of a 90-mph wind under a 3-second gust.
- a. The submittal shall illustrate how to tether the structure properly. In detail, it shall specify:
 - 1. The anchor points to the structure.
 - 2. Angle of tether strap at anchor point and ballast point.
 - 3. Type of material required for the rope.
 - 4. Required tensile strength for the rope.

- F. Tents, canopies, and structures that do not meet the required wind and snow loads shall implement a weather management plan. A tent, canopy, or trussed structure erected during snow months (November through May) shall be designed to maintain a snow load of 90 pounds per square foot. If the tent, canopy, or structure cannot be designed to meet the snow load, then a weather management plan shall be required. Weather management plans shall be submitted to the Fire District for approval.

Exhibit A

Quick Reference Guide

- Tents or canopies up to and including 20' x 20' require a minimum of 40 pounds per leg. The weight shall be affixed to the tent with a rated rope or ratchet strap.
- Tents or canopies up to and including 40' x 40' require a minimum of a 55-gallon barrel filled with water per leg. The barrel shall be affixed to the tent with a rated rope or ratchet strap.
- Tents or canopies over 40' x 40' require a State of Colorado Engineer to determine the proper ballasting.
- Non-standard tents defined under Item IV of this guideline require a State of Colorado Engineer to determine the proper ballasting.
- Trussed temporary structures require a State of Colorado Engineer to determine the proper ballasting

Up to and including a 20' X 20' Tent or Canopy

What is allowed:

- Sealed tube-type weights constructed of PVC. The weights shall have an eye-type hook on one end for attachment to the tent's top structure.
- Steel rods or bars. The weights shall have an eye-type hook on one end for attachment to the tent's top structure.
- Weight plates that the manufacturer designs. The weight plates shall be capable of latching or locking onto the structure's leg.
- Sandbags that the tent manufacturer designs. Sandbags shall be capable of attaching to the leg of the structure. The manufacturer shall specify ballast material.
- A minimum of 40 pounds shall be attached to each leg of the structure.

What is **NOT** allowed:

- Bricks
- Cinder Blocks
- Water Jugs
- Buckets of any kind
- Gym Style Weights
- Rocks
- Bags of sand or sand tubes not designed by the structure manufacturer.

Alternative materials and methods may be approved on a case-by-case basis. At least one (1) month before the event, a separate submittal shall be provided to the Fire District.

The event organizer is responsible for ensuring all temporary structures meet the requirements of this policy. Failure to comply with this policy will result in legal action, fines, and/or removal of the structure from the event site.

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What is Allowed:

PVC Pipe Filled with Concrete or Similar Manufactured Weights (40-50 pounds per leg)



The PVC pipe filled with cement hangs on the inside of the canopy pole, and it has soft edges and the ability to move, just in case someone still manages to collide with it.

Instructions

1. Use a 5-inch PVC pipe cut 30 inches long, purchase two end caps for each section along with a long eye hook.
2. Drill a hole in one of the ends to allow the bolt end of the eyehook to go through it.
3. Using an adhesive for PVC pipe, seal one end.
4. Fill the tubes with the bags of Quickcrete™.
5. Add water to the pipes (The moisture will set the Quickcrete™).
6. Secure the end cap with the hole, again using adhesive, and stick the bolt end of the eyehook through the hole making sure it inserts into the Quickcrete™.
7. Stand the pipe up to allow curing.
8. Use tie-down straps or bungees with hooks on both ends that allow you to adjust the height for your weights. This keeps the weight tension tight.

EZ-Up™ Sand Bags or Other Manufactured Weights (40 pounds per leg)



- Each weight bag holds up to 40 pounds of sand (which you provide) and attaches to legs.
- Average cost from most online stores is \$60.00 for 4 bags, plus the cost of sand.

Also allowed are weight plates designed to attach to the leg of the tent except as stated in the next section.

What is NOT Allowed:

Water Jugs



- Water jugs weigh in at about 8 pounds each. **This includes the use of 5 gallon buckets, kegs, coolers, and bags of ice.**

Cinder Blocks



- Aside from being a trip hazard, they are just plain ugly.
 - Cinder blocks weigh in at around 22 pounds each
- This includes the use of barbells or other types of weight that are not manufactured for use with tents.

Stakes



- Never use stakes in concrete or our rocky soil.
 - A stiff wind can lift pull these right out of the ground.
- They are a significant trip hazard to event attendees.

If you have questions regarding this document or would like to know if a specific type of weight that is not discussed in this document will be acceptable, please contact us at (970) 453-2474