



**LOWER VALLEY FIRE PROTECTION DISTRICT**  
**168 N. Mesa**  
**Fruita, CO. 81521**  
**Phone: (970) 858-3133 Fax: (970) 858-7189**

**Some Fire Department Design Requirements**

**NOTE:** Exact requirements will depend on the occupancy class and square footage of a building and requirements of the Mesa County Building Department for remodeling and new construction. All references are to the applicable National Fire Protection Association (NFPA) codes or the 2018 Edition of the International Fire Code (IFC).

1. Design occupant load (s) shall be shown on construction drawings submitted for review for new buildings along with calculations for egress width of corridors and doorways.
2. Posting of Occupant Load Sign: Every room or space that is an assembly occupancy shall have an approved sign posted in a conspicuous place, at least 7-8 feet above the floor, near the main entrance. Occupant load signs shall read:

“MAXIMUM OCCUPANT LOAD is limited to \_\_\_\_\_ persons. By order of the Fire Chief.”

Where a room can be enlarged by opening a movable partition the sign(s) shall read

“MAXIMUM OCCUPANT LOAD is limited to \_\_\_\_\_ persons or \_\_\_\_\_ when partition is in the open position. By order of the Fire Chief”

The sign(s) shall be of permanent material (such as plastic plate) with engraved **white letters 1 inch high** for the capitol letters and occupant load number and are on a **red background**.

3. All buildings protected by a fire sprinkler system or as required by the fire code official require a Knox Key Box per IFC 506. The box shall be installed by the right side of main entrance and the top of the box shall be not less than five feet six inches or more than 6 feet above the sidewalk. **Boxes must have side hinged doors**. You must have an authorized signature and order form from the fire department to order a Knox key box.

4. Automatic Fire Sprinkler Systems: The Fire department shall determine the location of the Fire Department Connection (FDC). FDC caps shall be Knox FDC Plug without Swivel-Guard unless waived by the fire code official. You must have an authorized signature and order form from the fire department to order these plugs. Ref: IFC 903.3.7 & Section 912

5. Street Address Numbers: Numbers shall be at least 4 inches high or larger so that they may be read from the street. Numbers must contrast with the background upon which they are installed. If you need help, remember the easier we can find the address the quicker you will receive help. Note: The Fire Chief may require additional address or building identification if needed Ref. IFC 505.1 as amended

6. Fire Hydrants and Fire Flows: Hydrants shall be located in accordance with Appendix "C" of the IFC as amended. Pumper connection shall be equipped with a five inch non threaded sexless connection (commonly referred to as Storz) and metal cap which can be opened with a standard pentagon nut hydrant wrench. The two- and one-half inch butts shall be furnished with National Standard Thread. Required fire flows shall be determined by the fire department. Ref. Appendix "B." of the IFC.

7. Fire Department Access: Public Street access shall comply with the requirements of City or County road design standards and IFC Section 503 and Appendix D. Private Street Access shall comply with the International Fire Code Appendix "D". All fire department access routes shall have at least 13 feet, 6 inches of vertical clearance for the entire road width.

8. Fire Extinguishers: Fire extinguishers having a gross weight not exceeding 40 pounds shall be installed so that the top of the extinguisher is not more than five (5) feet above the floor. Fire extinguishers having a gross weight over 40 pounds shall be installed so that the top is not more than 42 inches above the floor. In no case shall the bottom of the extinguisher be less than four (4) inches above the floor. Fire extinguishers shall be mounted where they are readily visible and accessible. Where needed, signs shall be provided to indicate the extinguisher location.

9. Fire doors are always required to be kept closed and latched and shall not be wedged or blocked open. The only exception is if the fire door closure device is activated by smoke detectors connected to electromagnetic hold open devices which will release the doors upon detection of smoke. Signs: Where required by the code official a sign with one-inch letters (white on a red background) reading: "FIRE DOOR- DO NOT BLOCK" for fire doors designed to be kept normally open. Fire doors that are to be kept closed at all times shall have a sign reading: "FIRE DOOR- KEEP CLOSED." REF: IFC Section 705.

10. Identification of each multiple external building electrical disconnects to indicate its purpose and multiple gas meter shutoffs shall be by permanent 1 inch high, contrasting permanent letters plainly visible to responding fire fighters. Ref. NFPA 70, 2017 Ed., Art. 110.22 and NFPA 54, Section 5.7.5, 2018 Ed., 2018 IFC Section 509

REV: 9/4/2019