



SANDY FIRE DISTRICT NO. 72

Fire Prevention Division

E-mail Memorandum

To: planning@ci.sandy.or.us
From: Gary Boyles
Date: January 10, 2023
Re: File No. 22-031 DR/VAR/TREE ~ 38105 Hwy 26

This review is not intended to be a comprehensive analysis of all applicable code sections, nor shall this review nullify code requirements that are determined necessary during building permit review. Review and comments are based upon the current version of the Oregon Fire Code (OFC) as adopted by the Oregon Office of State Fire Marshal. The scope of this review is typically limited to fire apparatus access and water supply, although the applicant shall comply with all applicable OFC requirements. When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access and water supply may be modified as approved by the fire code official. References, unless otherwise specified, include provisions found in the Metro Code Committee's Fire Code Applications Guide, OFC Chapter 5 and Appendices B, C and D.

COMMENTS:

General

1. Construction documents detailing compliance with fire apparatus access and fire protection water supply requirements shall be provided to Sandy Fire District for review and approval concurrently with building permit submittal. All construction activities shall comply with the applicable Oregon Fire Code and the [Fire Code Application Guide](#).
2. The owner or owner's authorized agent shall be responsible for the development, implementation and maintenance of a written plan establishing a fire prevention program at the project site applicable throughout all phases of the construction. The plan shall address the requirements found in OFC Chapter 33 and shall be made available for review by the fire code official upon request.
3. Where fire apparatus access roads or a water supply for fire protection are required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except where approved alternative methods of protection are provided.

4. Buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property, including monument signs.
5. A key lock box for building will be required to provide access to common use areas, the fire alarm control panel(s), and the fire sprinkler riser room(s). The Fire District uses KNOX brand boxes. To order a KNOX box keyed for the Sandy Fire District, please visit Sandy Fire's website (<https://www.knoxbox.com/Products>) for ordering information.
6. Knox Box Contents. When more than one key is secured in the Knox Box, each key shall be legibly identified as to its use, utilizing a round key tag that is a minimum of 1-inch in diameter. Necessary keys provided by the building owner or business owner may include:
 - a. Main entrance door
 - b. Fire Alarm Control Panel
 - c. Alarm codes
 - d. Manual pull stations
 - e. Fire Sprinkler Control padlock/s
 - f. Mechanical rooms
 - g. Elevator control
 - h. Attic or roof access
 - i. Any other keys necessary to access building controls
7. An emergency vehicle access and maintenance agreement shall be deeded and recorded as a condition of approval
8. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3% slope), shall be provided with a stairway to the roof.

Fire Apparatus Access

FIRE APPARATUS ACCESS ROAD (as defined by the OFC). A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as *fire lane*, public street, private street, parking lot lane and access roadway.

1. All public roads, bridges or entrances from public roads shall be subject to the applicable roadway standards for either Clackamas County or the City of Sandy.
2. Fire apparatus access roads shall be within 150 feet of all portions of the exterior walls of the first story of any building as measured by an approved route around the exterior of the building. An approved turnaround that meets the Oregon Fire Code requirements will be required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet.

3. Commercial buildings having a gross building area of more than 62,000 square feet (124,000 square feet if equipped throughout with an approved automatic sprinkler systems) shall be provided with two separated and approved fire apparatus access roads.
4. **Commercial buildings exceeding three stories or 30 feet in height shall have not fewer than two means of fire apparatus access for each building.**
5. Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.
6. Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet and an unobstructed vertical clearance of 13 feet 6 inches is to be maintained.
7. When the vertical distance between the grade plane and a building's highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided. For purposes of this requirement, the highest roof surface shall be determined by measurements to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater. If buildings are more than 30 feet in height, as measured above, the following requirements apply:
 - a. Aerial fire apparatus access roads shall be provided and have a minimum unobstructed width of 26 feet, exclusive of shoulders or parking, in the immediate vicinity of the building or portion thereof that will accommodate aerial operations.
 - b. The aerial fire apparatus access road shall be located not less than 15 feet nor greater than 30 feet from the building and shall be positioned parallel to one entire side of the building.
 - c. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.
 - d. Overhead utility and power lines shall not be located within the aerial fire apparatus access road or between the aerial fire apparatus access road and the building.
8. Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete, or other approved driving surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds (gross vehicle weight).
9. The inside turning radius and outside turning radius for fire apparatus access roads shall be not less than 28 feet and 48 feet respectively, measured from the same center point.
10. Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "NO PARKING-FIRE LANE" signs shall be placed on one or both sides of the roadway and in turnarounds as needed.

Firefighting Water Supplies

1. The minimum available fire-flow and flow duration for commercial and industrial buildings shall be as specified in OFC Appendix B. In no case shall the resulting fire-flow be less than 1,500 gpm at 20 psi residual.
2. Fire flow testing will be required to determine available fire flow. Testing will be the responsibility of the applicant. Applicant to contact the City of Sandy Public Works for testing information and requirements and notify the Fire Marshal prior to fire flow testing.
3. **A minimum of one on-site fire hydrant** shall be provided near the proposed mixed-use development for firefighting operations. If distances between fire hydrants exceeds 500 feet, additional on-site fire hydrants may be required along the fire apparatus access road.
4. **Fire department connections (FDC) are required to be remote and shall be located within 100 feet of a public fire hydrant.** All FDC's shall be permanently labeled with appropriate address in which it serves and shall be accessible and visible from the fire apparatus access road.
5. The minimum number and distribution of fire hydrants shall be in accordance with City of Sandy requirements and OFC Appendix C.
6. Fire hydrants installed within the Sandy Fire District shall comply with the following requirements:
 - a. Flow requirements and location of fire hydrants will be reviewed and approved by Sandy Fire upon building permit submittal.
 - b. Each new fire hydrant installed shall be ordered in an OSHA safety red finish and have a 4-inch non-threaded metal faced hydrant connection with cap installed on the steamer port (4 ½-inch NST x 4-inch Storz Adaptor). If a new building, structure, or dwelling is already served by an existing hydrant, the existing hydrant shall also be OSHA safety red and have a 4-inch non-threaded metal faced hydrant connection with cap installed.**

NOTE:

Sandy Fire District comments may not be all inclusive based on information provided. A more detailed review may be needed for future development to proceed.

Please do not hesitate to contact Fire Marshal Gary Boyles at 503-891-7042 or fmboyles.sandyfire@gmail.com should you have any questions or concerns.