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**SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington**

**ORDINANCE NO. 98-132
RELATING TO ADOPTION AND AMENDMENT OF THE
WASHINGTON STATE UNIFORM FIRE CODE,
ESTABLISHING MINIMUM STANDARDS FOR FIRE ALARM SYSTEMS,
WATER MAINS, AND FIRE HYDRANTS,
AND AMENDING TITLE 16 SCC**

BE IT ORDAINED:

Section 1. Snohomish County Code Section 16.04.010, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.04.010 Uniform fire code (~~1994 edition~~) 1997 edition, volume 1, appendices and volume 2 adopted - copies on file

The uniform fire code, volume 1, and uniform fire code standards, volume 2, (~~1994~~) 1997 edition, published by the international fire code institute, as adopted and amended by the Washington state building code council and included in chapter 19.27 of the revised code of Washington (RCW), except as expressly amended by the county, is incorporated herein and made a part of this chapter by reference and is adopted as the uniform fire code of Snohomish county. Appendices I-C, II-B, II-C, II-F, II-G, III-A, III-B, III-C, IV-B, V-A, VI-A, VI-D, VI-E and VI-G of the uniform fire code, volume 1, (~~1994~~) 1997 edition, are adopted, incorporated by reference and made a part hereof as if fully set out in this chapter. One copy of the uniform fire code of Snohomish county shall be placed on file with the Snohomish county auditor and one copy shall be placed on file with the Sno-Isle regional library system.

Section 2. Snohomish County Code Section 16.04.012, adopted by Ordinance No. 96-098 on January 10, 1997, is **REPEALED**.

Section 3. Snohomish County Code Section 16.04.095, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.04.095 Section 204 amended. Section 204 is amended as follows:

(1) The definitions of "CHIEF" and "CHIEF OF THE BUREAU OF FIRE PREVENTION" ~~((is))~~ are deleted in ~~((its))~~ their entirety and the following definition is added:

"CHIEF" or "CHIEF OF THE BUREAU OF FIRE PREVENTION" means the Snohomish county fire marshal.

(2) The definition of "CHIEF ENGINEER" is deleted in its entirety.

(3) The definition of "CHIEF OF POLICE or POLICE DEPARTMENT" is deleted in its entirety and the following definition is added:

"CHIEF OF POLICE or POLICE DEPARTMENT" means the Snohomish county sheriff or Snohomish county sheriff's office.

(4) A definition of "COMMERCIAL OCCUPANCY" is added as follows:

"COMMERCIAL OCCUPANCY" means groups A, B, I, E, H, F, LC ~~(except adult family homes as defined in chapter 70.128 RCW)~~, M, R-1 and S occupancies as defined in Table 3-A of appendix VI-~~((D))~~E of the uniform fire code, volume 1, ~~((1994))~~ 1997 edition.

Section 4. NEW SECTION. A **NEW SECTION** is added to Chapter 16.04 of the Snohomish County Code to read:

16.04.101 Section 221 amended. Section 221 is amended as follows

The definition of "TEMPORARY MEMBRANE STRUCTURE" is deleted in its entirety and the following definition is added:

"TEMPORARY MEMBRANE STRUCTURE" means an air-inflated, air-supported, cable, or frame-covered structure as defined by the Building Code and erected for less than 180 days and shall include structures that have the sides or roof covered with polyethylene, polyvinyl or similar flexible synthetic material. Temporary membrane structures shall not include structures defined as a tent, canopy, or awning.

The following definition of "TURNAROUND" is added:

"TURNAROUND" shall mean a cul-de-sac having a driving surface with a minimum 40' outside radii.

Section 5. Snohomish County Code Section 16.04.137, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.04.137 Sections 902.2 through 902.4.1 added. Sections 902.2 through 902.4.1 are added as follows:

902.2 Fire apparatus access roads.

902.2.1 Required access. Fire apparatus access roads shall be provided in accordance with Sections 901 and 902.2 for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet from fire apparatus access as measured by an approved route around the exterior of the building or facility. See also Section 902.3 for personnel access to buildings.

EXCEPTIONS: 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of Sections 902.2.1 and 902.2.2 may be modified by the fire marshal.

2. When access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades or other similar conditions, the fire marshal is authorized to require additional fire protection as specified in section 1001.9.

3. When there are not more than two Group R, Division 3, or Group U Occupancies, the requirements of Sections 902.2.1 and 902.2.2 may be modified by the fire marshal.

More than one fire apparatus road shall be provided when it is determined by the fire marshal that access by a single road might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

For high-piled combustible storage, see UFC Section 8102.5.1.

For required access during construction, alteration or demolition of a building, see Section 8704.2.

902.2.2 Specifications.

902.2.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches.

EXCEPTION: Vertical clearance may be reduced, provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved by the fire marshal.

Vertical clearances or widths shall be increased when, in the opinion of the fire marshal, vertical clearances or widths are not adequate to provide fire apparatus access.

902.2.2.2 Surface. All fire apparatus access roadways shall be constructed of either gravel, asphalt or some other approved (~~an~~) all-weather surface capable of supporting 25-ton vehicles.

902.2.2.3 Turning Radius. Turns, bends, or sweeps in fire apparatus access roadways shall be designed at not less than twenty foot inside-turning radii nor less than forty foot outside-turning radius.

902.2.2.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with (~~approved provisions for the turning around of fire apparatus~~) a turnaround unless a modification is granted by the fire marshal.

902.2.2.5 Bridges. When a bridge is required to be used as part of a fire apparatus access road, it shall be constructed and maintained in accordance with the department of public works engineering design and development standards adopted by the county. The bridge shall be designed to carry an AASHTO (American Association of State Highway and Traffic Officials) HS 20-44 live load or greater, sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the fire marshal.

902.2.2.6 Grade. The gradient for a fire apparatus access road shall not exceed fifteen (15) percent.

902.2.3 Marking. See section 901.4.

902.2.4 Obstruction and control of fire apparatus access.

902.2.4.1 General. The required width of a fire apparatus access road shall not be obstructed in any manner including parking of vehicles. Minimum required widths and clearances established under Section 902.2.2.1 shall be maintained at all times.

Entrances to roads, trails or other accessways which have been closed with gates and barriers in accordance with Section 902.2.4.2 shall not be obstructed by parked vehicles.

Section 6. Snohomish County Code Section 16.04.145, adopted by Ordinance No. 96-098 on January 10, 1997, is **REPEALED**.

Section 7. Snohomish County Code Section 16.04.155, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.04.155 Subsection 1007.1.1 deleted and new subsection 1007.1.1 added. Subsection 1007.1.1 is deleted in its entirety and replaced with a new subsection 1007.1.1 as follows:

1007.1.1 Applicability. Installation and maintenance of fire alarm systems shall be in accordance with section 1007 of the uniform fire code ((1994)) 1997 edition, and national fire protection association (NFPA) 72, 1993 edition.

Section 8. Snohomish County Code Section 16.04.175, last amended by Ordinance No. 96-098 on January 15, 1997, is **REPEALED**.

Section 9. Snohomish County Code Section 16.04.250, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.04.250 Sections ((1007.2.9.3.4)) 1007.2.9.3.4 through 1007.2.9.3.7 added. Sections ((1007.2.9.3.4)) 1007.2.9.3.4 through 1007.2.9.3.7 are added as follows:

~~**1007.2.9.3 Group R division 3 and LC occupancies -- applicability.** This section shall apply to only to group R division 3, and LC occupancies as defined by the uniform building code.~~

~~**1007.2.9.3.1 Definitions.** The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning;~~

~~(1) **"Approved smoke detector"** means an ionization or photoelectric device which detects visible or invisible products of combustion other than heat, which emits an audible signal indicating a fire condition or both an audible and visual signal indicating a fire condition, which conforms to Washington State Building Code requirements, and which is listed by Underwriters Laboratories or any other nationally recognized testing laboratory. A device which detects only heat shall not constitute an approved smoke detector under this article;~~

- ~~(2) "Battery-operated" means powered by an integral battery or batteries;~~
- ~~(3) "Hard-wired" means directly connected to a building's AC electrical power supplied by a commercial light and power source. Wiring shall be permanent without a disconnecting switch other than those required for overcurrent protection;~~
- ~~(4) "Residence" for the purpose of this section means those structures classified as a group R division 3 or LC occupancy by the uniform building code;~~
- ~~(5) "Owner" means a person who alone, jointly or severally with others, shall have all or part of the legal title to any residence;~~
- ~~(6) "Sleeping area" means an area of a residence containing bedrooms which are separated from each other by no-use area other than a bathroom.~~

~~1007.2.9.3.2 Installation required. (1) The smoke detector shall be installed in a manner and location consistent with the manufacturer's instructions. The installation shall include not less than one smoke detector adjacent to the sleeping area which is in operable condition and provides an audible warning that can be heard in all rooms, including the sleeping area(s), and not less than one smoke detector on each level of the dwelling, including the basement but excluding any crawl space or unfinished attic. Where multiple sleeping areas exist and are widely separated (i.e., on different levels or opposite ends of the residence), or where a single smoke detector will not adequately service all sleeping areas, there shall be additional smoke detectors installed adjacent to each sleeping area.~~

~~(2) Hard-wired smoke detectors shall be installed in all residences built or manufactured after December 31, 1980. In new construction, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Battery operated smoke detectors may be utilized in existing residences which were constructed prior to December 31, 1980.~~

~~(3) No permit for alterations, repairs or additions to an existing residence shall be issued unless the owner certifies that a properly operating smoke detector has been installed in the residence in accordance with this section.~~

1007.2.9.3.4 Testing and maintenance. Installation of smoke detection devices shall be the responsibility of the owner. Maintenance of smoke detection devices, including the replacement of batteries where required for the proper operation of the smoke detection device, shall be the responsibility of the tenant or occupant. It shall be the responsibility of the tenant or occupant to maintain the device as specified by the manufacturer and test the performance of the

smoke detector(s) as recommended by the manufacturer, at intervals of not less than once a month. If the detector is battery operated, new batteries shall be installed whenever the unit emits a low battery signal, or a minimum of once each year whether or not a low battery signal is present.

1007.2.9.3.5 Removal or tampering. It shall be unlawful for any person to remove a properly functioning smoke detector installed in conformance with this section unless it is for the purpose of repair or replacement of the unit. It shall be unlawful for any person to remove batteries, other than for replacement, or in any other way make inoperable or interfere with the effectiveness of a smoke detector installed in conformance with this section.

1007.2.9.3.6 Transfer of residence. It shall be unlawful for any person to convey fee title, rent or lease any real property which includes a residence, or transfer possession of any residence pursuant to a land sale contract, unless there is a properly operating smoke detector in the residence which has been installed in accordance with this section. Prior to the closing of sale, or entering into a rental or lease agreement of a residence, it shall be the duty of the owner to certify to the buyer, renter or lessee, in writing, that all smoke detectors required by this section are installed and in proper working order.

1007.2.9.3.7 Nonliability of county. The county, the fire marshal and their inspectors, agents and employees shall not be held liable in any civil action for damages, death or injury to persons or property resulting from the failure to install, or the failure of, a smoke detector required under this article.

Section 10. Snohomish County Code Section 16.04.185, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.04.185 Section 903 deleted.

Section 903 deleted. Section 903 is hereby deleted (~~in its entirety~~) except subsection 903.4.3 shall remain in effect. Minimum standards for water mains and fire hydrants are established in chapter 16.36 SCC.

Section 11. Snohomish County Code Section 16.36.040, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.36.040 Required water supply for fire protection.

(1) All land upon which buildings or portions of buildings are or may be constructed, erected, enlarged, altered, repaired, moved into the jurisdiction, or improved, shall be served by a water supply designed to meet the required fire

flow for fire protection as set out in appendix III-A of the uniform fire code, except that fire flow requirements for rural areas shall be reduced by 25 percent and fire flow requirements for structures with a supervised fire alarm system connected to a UL approved fire alarm center (~~as defined in section 1007~~) may be reduced by ~~((45))~~ an additional 25 percent.

(2) Prior to ~~((the issuance of a building permit))~~ final approval of any subdivision, written verification by the water purveyor of actual fire flow, calculated in accordance with appendix III-A of the uniform fire code, shall be provided to the fire marshal for review and approval.

Section 12. Snohomish County Code Section 16.36.050, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.36.050 Exemptions.

Except as provided in SCC 16.36.060, the following permits and approvals are exempt from the water supply and fire hydrant requirements of this chapter:

(1) Subdivisions and short subdivisions in which ~~((any))~~ all lots ~~((is being created with a))~~ have a lot area of 43,560 square feet (one acre) or more in size;

(2) Building permits for structures classified by the uniform building code as group U-1 occupancies (agricultural buildings, private garages; carports and sheds) that are restricted to private residential use only, provided that riding arenas or other agricultural type structures used or accessed by the public shall not be exempt;

(3) Building permits for single family detached dwellings, duplexes ~~((and mobile home permits for mobile homes in mobile home parks))~~, and mobile homes to be placed on a ~~((single))~~ lot with a lot area of 43,560 square feet (one acre) or more in size.

(4) Mobile home permits for mobile homes in established mobile home parks.

Section 13. Snohomish County Code Section 16.36.070, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.36.070 Fire hydrant Spacing.

(1) Fire hydrant locations shall be determined by the fire marshal, in coordination with the water purveyor, and pursuant to the requirements of Appendix III-B of the Uniform Fire Code subject to the following exceptions:

(A) Fire hydrants serving single family dwellings or duplexes shall have a maximum lateral spacing of 600 feet with no lot or parcel in excess of 300 feet from a fire hydrant.

(B) Where the buildings are protected by an approved automatic sprinkler system, the spacing requirements may be modified, if in the opinion of the fire marshal or his designee, the level of fire protection is not reduced.

(2) For dead-end streets or roads the fire marshal may make adjustments to the lateral spacing requirements to facilitate locating the hydrant at or near the intersection and hydrants shall be located at, or near street intersections whenever possible.

(3) All hydrants shall be accessible to the fire department by roadways or accesses meeting the requirements of ~~((chapter 16.04 SCC))~~ SCC 16.04.137.

(4) When hydrants cannot be installed in conformance with the spacing requirements of this chapter, the fire marshal shall confer with the water purveyor and provide for alternate locations as allowed by the uniform fire code.

Section 14. Snohomish County Code Section 16.36.080, last amended by Ordinance No. 96-098 on January 15, 1997, is **AMENDED** to read:

16.36.080 Fire hydrant installation and maintenance requirements

The standards contained in this section apply to all new hydrant installations and to replacement of existing hydrants on public water systems that are required by the UFC to provide fire flow.

(1) The installation of all fire hydrants shall be in accordance with sound engineering practices and supplied by mains as prescribed by this chapter. Hydrants shall be installed, tested and charged prior to the start of construction, unless otherwise approved by the fire marshal.

~~(2) All hydrants shall be accessible to the fire department by public or private roads or approved emergency vehicle accesses (fire lanes) meeting the requirements chapter 16.04 SCC~~

~~(3)~~ (2) Approval of fire hydrant types must be obtained prior to installation from the water purveyor or the fire marshal in the absence of a water purveyor.

~~(4)~~ (3) All elements of fire hydrant installation including water mains, pipes, valves and related components shall conform to the UFC, National Fire Protection Association (NFPA) standard 24, 1995 edition, and American Water Works Association (AWWA) Standard C502-94.

~~(5)~~ (4) Standard hydrants shall have not less than five (5) inch main valve openings (MVO) with two (2) two-and-one-half (2-1/2") inch National Hose (N.H.) outlet ports and one (1) four-and-one-half inch (4-1/2") inch N.H. outlet port. When two port hydrants are replaced, they shall be replaced with three (3) port hydrants.

~~(6)~~ (5) "Storz" type steamer port fittings shall be provided on new hydrants when required by the local fire district.

(7 ~~6~~) Hydrants shall stand plumb and be set to the finished grade. The bottom of the lowest outlet of the hydrant shall be no less than 18 inches above the grade. There shall be a 36-inch radius of clear area about the hydrant for the operation of a hydrant wrench on the outlets and the control valve. The pumper port shall face the street, or where the street cannot be clearly identified, the port shall face the most likely route of approach of the fire truck while pumping, as determined by the fire marshal. The hydrant shall be installed within fifteen (15) feet of the street or access roadway.

(8 ~~7~~) Hydrants shall be a minimum of 50 feet from a commercial structure to be served and no further than 100 feet from a FDC if present.

(9 ~~8~~) The hydrant lateral shall be designed to deliver the required fire flow.

(10 ~~9~~) Hydrants shall not be obstructed by structures, fences, the parking of vehicles, or vegetation. Hydrant visibility shall not be impaired within a distance of seventy five (75) feet in any direction of vehicular approach to the hydrant.

~~(11) Hydrants shall be provided along public and private access roads, and when practical shall be located at street intersections.~~

(12 ~~10~~) Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall be in accordance with approved standards. Fire hydrant systems shall be subject to such periodic tests as required by the fire marshal.

(13 ~~11~~) When any portion of the facility or building protected is in excess of 150 feet from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the fire marshal.

(14 ~~12~~) The fire district may, in accordance with an agreement with the water purveyor, test hydrants for flow capability and may color code tops of existing public and private hydrants with proper notification to the purveyor. Blue street reflectors may also be installed to indicate hydrant locations.

For all new hydrant installations, either public or private, the developer shall color code the tops of the hydrant(s) to designate the level of service being provided by that hydrant. Color coding for existing and new hydrants shall be in accordance with the following:

| | |
|------------|---|
| Light Blue | 1500 GPM or greater |
| Green | 1000 to 1499 GPM |
| Orange | 500 to 999 GPM |
| Red | Less than 500 GPM |
| Black | For drafting use only (hard suction/steamer port) |
| White | Cross on top of hydrant - for filling tankers only. |

In addition to color coding new hydrants the developer shall also install blue street reflectors to indicate hydrant locations. Color coding of new hydrant(s) and the installation of blue street reflectors shall be completed prior to final approval of any development or new construction.

(45 13) Internal maintenance of public hydrants shall be the responsibility of the recognized water purveyor. Private fire service hydrants and mains shall be protected and maintained by the owners in accordance with NFPA Pamphlet #24.

(46 14) The water purveyor shall submit documentation to the fire marshal indicating which entity is responsible for proper installation, operation and maintenance of fire protection facilities associated with public water systems. The statement shall also indicate which fire district or utility is responsible for repair and maintenance of fire hydrants in unincorporated Snohomish County.

(47 15) Vehicles shall not be parked within fifteen feet of a fire hydrant or fire department connection or a fire protection system control valve.

PASSED this 9th day of December, 1998.

SNOHOMISH COUNTY COUNCIL
SNOHOMISH COUNTY, WASHINGTON

Kimberly Kellum
Chairperson

ATTEST:

Barbara Dikowski
Clerk of Council, *Asst.*

- APPROVED
- VETOED
- EMERGENCY

DATE: 12-11-98

ATTEST

Conie Munro

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