

**AN ORDINANCE OF THE CITY OF BELLINGHAM ESTABLISHING NEW MARINA BOATHOUSE FIRE CODE REGULATIONS BY AMENDING BELLINGHAM MUNICIPAL CODE (BMC) SECTIONS 17.20.010 AND 17.20.020 AND ADOPTING A NEW BMC SECTION 17.20.110 WHICH AMENDS THE 2009 INTERNATIONAL FIRE CODE CHAPTER 45 AS ADOPTED BY THE STATE OF WASHINGTON.**

**WHEREAS**, RCW Chapter 19.27 requires cities to enforce the State Fire Code; and

**WHEREAS**, over time, the Bellingham City Council has modified the State Fire Code by adopting local amendments; and

**WHEREAS**, on March 30, 2012 a catastrophic early morning boathouse fire at the Port of Bellingham's Squalicum Marina killed two boat owners and destroyed 12 boats and the condominium boathouse; and

**WHEREAS**, fires in boathouses pose a unique risk to the public and our emergency responders; and

**WHEREAS**, as a result of this fire and the subsequent investigation, it was determined that significant fire safety and suppression improvements are necessary to prevent a similar tragedy in the future; and

**WHEREAS**, for the past several months Port of Bellingham administration and Bellingham City officials have been working to improve marina fire safety, especially for boathouse owners; and

**WHEREAS**, the State Fire Code does not address the risk created by the use and storage of flammable liquids and gases in boathouses; and

**WHEREAS**, the State Fire Code does not provide requirements for the establishment and maintenance of boathouse egress systems; and

**WHEREAS**, the standpipe system design requirements of the State Fire Code does not meet the demonstrated needs to suppress fires in marina boathouses; and

**WHEREAS**, the smoke and heat vent requirements of the State Fire Code do not provide requirements to inhibit the lateral spread of fire in all sizes of boathouses; and

**City of Bellingham**  
CITY ATTORNEY  
210 Lottie Street  
Bellingham, Washington 98225  
Telephone (360) 676-6903

**WHEREAS**, the lack of automatic fire sprinkler requirements in the State Fire Code does not address the need to confine and extinguish a fire in covered boat moorage and boathouses in excess of 2,500 square feet; and

**WHEREAS**, the City desires to establish BMC 17.20.110 to amend the 2009 International Fire Code Chapter 45 as amended by the State of Washington.

**NOW, THEREFORE, THE CITY OF BELLINGHAM DOES ORDAIN:**

**Section 1.** Bellingham Municipal Code Section 17.20.010 is amended as follows:

This chapter is enacted as an exercise of the police power of the City for the benefit of the public at large. It is not intended to create a special relationship with any individual, or individuals, nor to identify and protect any particular class of persons. It is not the intent of this chapter to impose liability on the City for failure to perform any discretionary act. Rather, it is the intent of this chapter to place the obligation of complying with its requirements upon the owner and/or contractor.

Nothing contained in this chapter shall be construed to relieve from or to lessen the responsibility or liability of any person or persons for injury or damage to persons or property caused by or resulting from any defect of any nature in any construction work performed by said person or any construction equipment owned, controlled, operated or used by the contractor; nor shall the City of Bellingham or any officer, agent, or employee thereof incur or be held as assuming any liability by reason or in consequence of any permission, certificate of inspection, inspection or approval authorized herein, or issued or given as herein provided or by reasons or consequence of any things done or acts performed pursuant to the provisions of this chapter.

The International Fire Code, 2009 Edition, including Appendix Chapters B, E, F, G, H, I, and J, as amended by the State of Washington (Chapter 51-54 WAC), is hereby adopted by reference as the Fire Code of the City of Bellingham. A copy of the document is on file in the office of the Finance Director. It governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided and provides for the issuance of permits and collection of fees therefore. Each and all of the regulations, provisions, penalties, conditions and terms of said Fire Code on file in the office of the City of Bellingham are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes prescribed in Bellingham Municipal Code 17.20.020 through 17.20.110 of this ordinance.

**Section 2.** Bellingham Municipal Code Section 17.20.020 is amended as follows:

**City of Bellingham**  
CITY ATTORNEY  
210 Lottie Street  
Bellingham, Washington 98225  
Telephone (360) 676-6903

**Section 101.1 - Section 104.6 [No change.]**

**105.1.2.3 Inspection required.**

An inspection is required prior to initial operational permit issuance and shall occur annually before the operational permit may be renewed.

**Section 105.2.2.1 - Section 105.6.30 [No change.]**

**105.6.47 Boathouse and covered boat moorage.**

An operational permit is required for the operation of a boathouse and covered boathouse structures.

**Section 105.7.15 - Section 113.5.2 [No change.]**

**Section 3.** Bellingham Municipal Code Section 17.20.110 is added as follows:

**17.20.110 - IFC Chapter 45, MARINAS**

Chapter 45 of the 2009 edition of the IFC as adopted by Bellingham Municipal Code 17.20.010 is hereby amended as follows:

**SECTION 4501  
SCOPE**

**4501.1 Scope.**

Marina facilities shall be in accordance with this chapter.

**4501.1.2 Permits.**

For permits to operate marine motor fuel-dispensing stations, application of flammable or combustible finishes, boathouse, covered boat moorage, and hot works, see Section 105.6.

**4501.1.3 Existing conditions.**

The provisions of this chapter shall apply to conditions existing prior to the adoption of this Code.

**4501.1.3.1 Compliance.**

The owner of a marina or part thereof with an identified deficiency pursuant to any of the following sections shall submit to the fire code official, within 120 days of receiving a Notice of Violation, a written concept design and firm schedule for complying with the requirements of this chapter.

a. Standpipes, 4504.2

**City of Bellingham**  
CITY ATTORNEY  
210 Lottie Street  
Bellingham, Washington 98225  
Telephone (360) 676-6903

- b. Smoke and heat vents, 4504.7
- c. Automatic fire sprinklers, 4504.9

#### 4501.1.3.2 Time limits.

The time schedule for compliance shall be measured from the date of the fire code official's approval of the concept design and firm schedule for each marina or part thereof. The time schedule must not exceed the following:

- a. Standpipes, 2 years
- b. Smoke and heat vents, 2 years
- c. Automatic fire sprinklers, 5 years

#### 4501.2 Plans and approvals.

Plans for marina fire protection facilities shall be approved prior to installation. The work shall be subject to final inspection and approval after installation.

### SECTION 4502 DEFINITIONS

#### 4502.1 Definitions.

The following words and terms shall, for the purpose of this chapter and as used elsewhere in this code, have the meanings shown herein.

**BERTH.** The water space to be occupied by a boat or other vessel alongside or between bulkheads, piers, piles, fixed and floating docks, or any similar access structure. (See also the definition of Slip)

**CONDOMINIUM BOATHOUSE.** An independently floating structure which encloses more than one vessel and is connected to float system pilings. A condominium boathouse is considered to be covered boat moorage.

**COVERED BOAT MOORAGE** is a pier or system of floating or fixed access ways to which vessels on water may be secured and any portion of which are covered by a roof.

**FINGER FLOAT.** A system of floats extending from the lateral walkway to provide access to moored vessels. Finger floats are typically narrower than a lateral walkway.

**FLOAT.** A floating structure normally used as a point of transfer for passengers and goods, or both, for mooring purposes.

**GRAVITY-OPERATED-DROP-OUT-VENTS** are automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent openings when exposed to fire.

**INDIVIDUAL BOATHOUSE.** An independently floating structure designed to be moored to a main float system to enclose and protect a vessel. An individual boathouse is capable of being moved on water, but is typically moored to a float system for long periods of time.

**LATERAL WALKWAY.** A system of floats extending from the main walkway to provide access to vessel moorage and/or finger floats. Lateral walkways are typically narrower than a main walkway.

**MAIN WALKWAY.** A system of floats extending from the shore to provide vessel moorage and/or access to the lateral walkway and finger floats.

**MARINA.** Any portion of the ocean or inland water, either naturally or artificially protected, for the mooring, servicing or safety of vessels and shall include artificially protected works, the public or private lands ashore, and structures or facilities provided within the enclosed body of water and ashore for the mooring or servicing of vessels or the servicing of their crews or passengers.

**PIER.** A structure built over the water, supported by pillars or piles, and used as a landing place, pleasure pavilion or similar purpose.

**SLIP.** A berthing space between or adjacent to piers, wharves, or docks; the water areas associated with boat moorage. (See also the definition of Berth)

**VESSEL.** A motorized watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation.

**WHARF.** A structure or bulkhead constructed of wood, stone, concrete or similar material built at the shore of a harbor, lake or river for vessels to lie alongside of, and to anchor piers or floats.

## **SECTION 4503**

### **GENERAL PRECAUTIONS**

#### **4503.1 Combustible debris.**

Combustible debris and rubbish shall not be deposited or accumulated on land beneath marina structures, piers or wharves.

#### **4503.2 Sources of ignition.**

Open-flame devices used for lighting or decoration on the exterior of a vessel, float, pier or wharf, under covered boat moorage, or within a boathouse shall be prohibited.

4503.2.1 Smoking restrictions.

Smoking is prohibited in all areas where fuels and other flammable and combustible liquids and gases are stored or dispensed, under covered boat moorage, within boat houses, and in other such locations as marina management or the fire code official designate. Smoking signs shall be consistent with Section 310.

4503.3 Flammable or combustible liquid spills.

Spills of flammable or combustible liquids at or upon the water shall be reported immediately to the fire department or jurisdictional authorities.

4503.4 Rubbish containers.

Metal containers with tight-fitting or self-closing lids shall be provided for the temporary storage of combustible trash or rubbish.

4503.5 Electrical equipment.

Electrical equipment shall be installed and used in accordance with its listing, Section 605 and Chapter 5 of NFPA 303 as required for wet, damp and hazardous locations.

4503.6 Berthing and storage.

Berthing and storage shall be in accordance with Chapter 7 of NFPA 303.

4503.7 Slip identification.

Slips and mooring spaces shall be individually identified by an approved numeric or alphabetic designator. Space designators shall be posted at the space. Signs indicating the space designators located on finger piers and floats shall be posted at the base of all piers, finger piers, floats and finger floats.

4503.8 Fuel dispensing.

Fuel dispensing from portable containers to vessels shall be prohibited.

**Exception:** At approved marine motor fuel-dispensing facilities.

4503.9 Fuel storage.

The maximum allowable quantity of fuel which may be stored within an individual boathouse or covered boat moorage shall be in accordance with Sections 4503.9.1 and 4503.9.2.

**Exception:** Fuel stored on the vessel.

4503.9.1 Flammable and combustible liquids.

The maximum allowable quantity of flammable or combustible liquids is limited to five gallons for each berth.

4503.9.2 Flammable Gases

The maximum allowable quantity of flammable gases is limited to 20 pounds for each berth.

#### 4503.10 Means of egress.

The means of egress system for individual boathouses and covered boat moorage shall be in accordance with Sections 4503.10.1 through 4503.10.6

##### 4503.10.1 General means of egress.

The requirements of Sections 1003.2 through 1003.6 shall apply to all three elements of the means of egress system.

##### 4503.10.2 Minimum required egress width.

The means of egress width shall not be less than 36 inches.

##### 4503.10.3 Doors.

Means of egress doors shall meet the requirements of this section. Doors serving a means of egress system shall meet the requirements of this section. Doors provided for egress purposes in numbers greater than required by this code shall meet the requirements of this section.

Means of egress doors shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations or similar materials.

##### 4503.10.3.1 Size of doors.

The minimum width of each door opening shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. The height of door openings shall not be less than 80 inches (2032 mm).

##### 4503.10.3.2 Projections into clear width.

There shall not be projections into the required clear width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).

**Exception:** Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

##### 4503.10.3.3 Door swing.

Egress doors shall be of the pivoted or side-hinged swinging type.



4503.10.3.4 Door opening force.

The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds. The door latch shall release when subjected to a 15-pound force. The door shall be set in motion when subjected to a 30-pound force. The door shall swing to a full-open position when subjected to a 15-pound force.

4503.10.3.5 Location of applied forces.

Forces shall be applied to the latch side of the door.

4503.10.3.6 Floor elevation.

There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 units vertical in 12 units horizontal (2-percent slope).

4503.10.3.7 Door operations.

Except as specifically permitted by this section egress doors shall be readily operable from the egress side without the use of a key or special knowledge or effort.

4503.10.3.7.1 Hardware.

Door handles shall not require tight grasping, tight pinching or twisting of the wrist to operate.

4503.10.3.7.2 Hardware height.

Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height.

4503.10.3.7.3 Bolt locks.

Single-cylinder keyed deadbolts are allowed.

4503.10.3.8 Number of exit doors required.

A minimum of one exit door shall be provided in each 50 lineal feet (15240 mm), or fraction thereof, of the longest exterior wall or as approved. The required exit doors shall be distributed such that the lineal distance between adjacent exit doors does not exceed 50 feet (15240 mm) and shall not be directly across the pier, float system or access way from another boathouse or covered boat moorage exit door.

4503.10.4 Exit signs.

Exit doors shall be marked by an approved exit sign readily visible from any direction of egress travel.

**Exception:** Boathouses and covered boat moorage with one exit.

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CITY ATTORNEY

210 Lottie Street

Bellingham, Washington 98225

Telephone (360) 676-6903



4503.10.5 Identification.

An approved sign shall be provided on the exterior of the boathouse and covered boat moorage which identifies the slip or slips within.

4503.10.6 Key safe.

An approved key safe shall be installed in an approved location on all condominium boathouses. The safe shall contain the key or keys to all exterior and interior doors.

4503.10.7 Maintenance.

The means of egress shall be maintained in accordance with Section 1030.

SECTION 4504

FIRE PROTECTION EQUIPMENT

4504.1 General.

Piers, marinas and wharves with facilities for mooring or servicing five or more vessels, and marine motor fuel-dispensing facilities shall be equipped with fire protection equipment in accordance with Sections 4504.2 through 4504.10.

4504.2 Standpipes.

Marinas shall be equipped throughout with Class I manual, dry standpipe systems in accordance with NFPA 14 and Sections 4504.2.1 through 4504.2.8.

4504.2.1 Identification of standpipe outlets.

Standpipe hose connection locations shall be clearly identified by a flag or other approved means designed to be readily visible from the pier accessing the float system.

4504.2.2 Outlet location.

Standpipe systems shall be provided with outlets located such that no point on the pier, float system, or fixed access way exceeds 150 feet from a standpipe outlet.

4504.2.3 Appurtenances.

Hose racks, hoses, and standpipe cabinets shall not be required on the pier or float system.

4504.2.4 Flow rate.

Supply piping for standpipes shall be sized for the minimum flow rate for Class I horizontal systems.

**Exception:** When approved, supply piping for standpipes may be sized for the minimum flow rate for Class II systems.

4504.2.5 Pressure.

Minimum hose outlet pressure shall be 130 psi while delivering the flow rate identified in Section 4502.2.4.

**Exception:** Approved existing standpipe systems.

4504.2.6 Material.

Approved plastic pipe may be used if installed underwater or other approved method of protection from fire is provided.

4504.2.7 Flexible connections.

Flexible connections shall be permitted on floating piers where approved.

4504.2.8 Sectional valves.

The system shall be equipped with sectional valves in approved locations.

4504.3 Access and water supply.

Piers and wharves shall be provided with fire apparatus access roads and water-supply systems with on-site fire hydrants when required by the fire code official. At least one fire hydrant capable of providing 1,500 gpm shall be provided within an approved distance of standpipe supply connections.

4504.4 Portable fire extinguishers.

One 4A:40B:C fire extinguisher shall be provided at each required standpipe outlet. Additional portable fire extinguishers, suitable for the hazards involved, shall be provided and maintained in accordance with Section 906.

4504.5 Communications.

A telephone not requiring a coin to operate or other approved, clearly identified means to notify the fire department shall be provided on the site in a location approved by the fire code official.

4504.6 Emergency operations staging areas.

Space shall be provided on all float systems for the staging of emergency equipment. Emergency operation staging areas shall provide a minimum of 4 feet wide by 10 feet long (1219 mm by 3048 mm) clear area exclusive of walkways and shall be located at each standpipe hose connection. Emergency operation staging areas shall be provided with a curb or barrier having a minimum height of 4 inches (102 mm) and maximum space between the bottom edge and the surface of the staging area of 2 inches (51 mm) on the outboard sides of the staging area.

An approved sign reading FIRE EQUIPMENT STAGING AREA—KEEP CLEAR shall be provided at each staging area.

City of Bellingham  
CITY ATTORNEY  
210 Lottie Street  
Bellingham, Washington 98225  
Telephone (360) 676-6903

#### 4504.7 Smoke and heat vents.

Approved automatic smoke and heat vents shall be provided in all covered boat moorage areas and boathouse structures.

**Exception:** Smoke and heat vents are not required in areas protected by automatic sprinklers.

#### 4507.1 Design and installation.

Where smoke and heat vents are required they shall be installed near the roof peak, evenly distributed and arranged so that at least one vent is over each covered berth. The effective vent area shall be calculated using a ratio of one square foot of vent to every fifteen square feet of covered berth area (1:15). Each vent shall provide a minimum opening size of 4 ft. X 4 ft.

##### 4504.7.1.1 Smoke and heat vents.

Smoke and heat vents shall operate automatically by actuation of a heat responsive device rated at between 100 degrees Fahrenheit and 220 degrees Fahrenheit above ambient.

**Exception:** Gravity-operated-drop-out vents

##### 4504.7.1.2 Gravity-operated-drop-out vents.

Gravity-operated-drop-out vents shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500 degree Fahrenheit within 5 minutes.

#### 4504.8 Draft curtains.

Draft curtains shall be provided in covered boat moorage areas exceeding 2,500 square feet in area, excluding roof overhangs.

**Exception:** Draft curtains are not required in areas protected by automatic sprinklers.

##### 4504.8.1 Draft curtain construction.

Draft curtains shall be constructed of sheet metal, gypsum board or other approved materials that provide equivalent performance to resist the passage of smoke. Joints and connections shall be smoke tight.

##### 4504.8.2 Draft curtain location and depth.

The maximum area protected by draft curtains shall not exceed 2,000 square feet or two slips or berths, whichever is smaller. Draft curtains shall have a minimum depth of 4 feet and shall not extend closer than 8 feet to the walking surface of the pier.

#### 4504.9 Automatic sprinkler systems.

Automatic sprinklers shall be provided throughout new and existing condominium covered boat moorage and condominium boathouse structures in accordance with Chapter 9.

**Exception:** Condominium covered boat moorage or boathouse structures not exceeding

**City of Bellingham**  
CITY ATTORNEY  
210 Lottie Street  
Bellingham, Washington 98225  
Telephone (360) 676-6903

2,500 sq. ft. (743 m<sup>2</sup>) in area and separated by at least 16 feet from another condominium covered boat moorage or condominium boathouse structure.

4504.9.1 Density.

The sprinkler system shall be designed and installed in accordance with Section 903 and NFPA Standard 13 for Extra Hazard Group 2 occupancy.

4504.9.2 Monitoring.

Sprinkler system shall be monitored in accordance with Section 903.

4504.9.3 Notification.

Notification appliances shall be installed throughout the structure in accordance with Section 907.6.2.

4504.10 Fire department connections.

Fire department connections shall be installed in accordance with Section 912.


SECTION 4505

MARINE MOTOR FUEL-DISPENSING FACILITIES

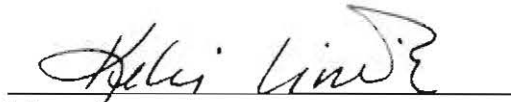
4505.1 Fuel dispensing.

Marine motor fuel-dispensing facilities shall be in accordance with Chapter 22.

PASSED BY COUNCIL this 24th day of September, 2012.

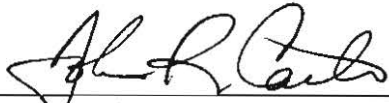
  
Council President

APPROVED BY ME this 1<sup>st</sup> day of October, 2012.

  
Mayor

Attest:

City of Bellingham  
CITY ATTORNEY  
210 Lottie Street  
Bellingham, Washington 98225  
Telephone (360) 676-6903



Finance Director

Approved as to form:



Office of the City Attorney

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