

Title 15 - BUILDINGS AND CONSTRUCTION  
Chapter 15.52 - FLOODPLAIN MANAGEMENT REGULATIONS

ARTICLE IV. PROVISIONS FOR FLOOD HAZARD REDUCTION

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[15.52.410 Standards of construction.](#)

[15.52.420 Standards for utilities.](#)

[15.52.430 Standards for subdivisions.](#)

[15.52.440 Standards for manufactured homes.](#)

[15.52.450 Standards for recreational vehicles.](#)

[15.52.460 Floodways.](#)

**15.52.410 Standards of construction.**

In all areas of special flood hazards the following standards are required:

A. Anchoring.

1. All new construction and substantial improvements shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
2. All manufactured homes shall meet the anchoring standards of [Section 15.52.440](#)

B. Construction Materials and Methods. All new construction and substantial improvement shall be constructed:

1. With materials and utility equipment resistant to flood damage;
2. Using methods and practices that minimize flood damage;
3. With electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and if
4. Within zones AH or AO, so that there are adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

C. Elevation and Floodproofing. (See [Section 15.52.210](#), definitions for "basement," "lowest floor," "new construction," "substantial damage" and "substantial improvement.")

1. Residential construction, new or substantial improvement, shall have the lowest floor, including basement:
  - a. In an A zone, elevated to or above the base flood elevation; said base flood elevation shall be determined by one of the methods in [Section 15.52.330\(B\)](#) of this chapter.
  - b. In an AO zone, elevated above the highest adjacent grade to a height equal to or exceeding the depth number specified in feet on the FIRM, or elevated at least two feet above the highest adjacent grade if no depth number is specified.
  - c. In all other zones, elevated to or above the base flood elevation.

Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, and verified

Title 15 - BUILDINGS AND CONSTRUCTION  
Chapter 15.52 - FLOODPLAIN MANAGEMENT REGULATIONS

ARTICLE IV. PROVISIONS FOR FLOOD HAZARD REDUCTION

by the community building inspector to be properly elevated. Such certification and verification shall be provided to the floodplain administrator.

2. Nonresidential construction, new or substantial improvement, shall either be elevated to conform with [Section 15.52.410\(C\)\(1\)](#) or together with attendant utility and sanitary facilities:
  - a. Be floodproofed below the elevation recommended under [Section 15.52.410\(C\)\(1\)](#) so that the structure is watertight with walls substantially impermeable to the passage of water;
  - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
  - c. Be certified by a registered professional engineer or architect that the standards of this section are satisfied. Such certification shall be provided to the floodplain administrator.
3. All new construction and substantial improvement with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement may follow the guidelines in FEMA Technical Bulletins 1-93 and 7-93, however in any event, must meet or exceed the following minimum criteria:
  - a. Be certified by a registered professional engineer or architect; or
  - b. Have a minimum of two openings on different sides of the structure having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater.
4. Manufactured homes shall also meet the standards in [Section 15.52.440](#)

(Ord. 1708 § 2(part), 1999)

(Ord. No. 1917, §§ 12, 13, 4-28-2009)

**15.52.420 Standards for utilities.**

- A. Water Supply and Sanitary Sewage. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate:
  1. Infiltration of floodwaters into the systems; and
  2. Discharge from the systems into floodwaters.
- B. On-Site Waste Disposal Systems. On-site waste disposal systems shall be located to avoid impairment to them, or contamination from them during flooding.

(Ord. 1708 § 2(part), 1999)

Title 15 - BUILDINGS AND CONSTRUCTION  
Chapter 15.52 - FLOODPLAIN MANAGEMENT REGULATIONS

ARTICLE IV. PROVISIONS FOR FLOOD HAZARD REDUCTION

**15.52.430 Standards for subdivisions.**

- A. All preliminary subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than fifty lots or five acres, whichever is lesser, shall identify the flood hazard area and the elevation of the base flood.
- B. All subdivision plans will provide the elevation of proposed structure(s) and pad(s). If the site is filled above the base flood elevation, the following as-built information for each structure shall be certified by a registered civil engineer or licensed land surveyor and provided to the floodplain administrator:
  - 1. Lowest floor elevation.
  - 2. Pad elevation.
  - 3. Lowest adjacent grade.
- C. All subdivision proposals shall be consistent with the need to minimize flood damage.
- D. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

(Ord. 1792 § 5, 2003)

(Ord. No. 1917, §§ 14, 15, 4-28-2009)

**15.52.440 Standards for manufactured homes.**

- A. All manufactured homes that are placed or substantially improved, within Zones A, A1-30, AE, AO and AH on the community's Flood Insurance Rate Map, on sites located:
  - 1. Outside of a manufactured home park or subdivision;
  - 2. In a new manufactured home park or subdivision;
  - 3. In an expansion to an existing manufactured home park or subdivision; or
  - 4. In an existing manufactured home park or subdivision on a site upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist flotation collapse and lateral movement.
- B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A, A1-30, AE, AO and AH on the community's Flood Insurance Rate Map that are not subject to the provisions of subsection A of this section will be securely fastened to an adequately anchored foundation system to resist flotation collapse and lateral movement, and elevated so that either the:
  - 1. Lowest floor of the manufactured home is at or above the base flood elevation; or
  - 2. Manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade.

(Ord. 1708 § 2(part), 1999)

Title 15 - BUILDINGS AND CONSTRUCTION  
Chapter 15.52 - FLOODPLAIN MANAGEMENT REGULATIONS

ARTICLE IV. PROVISIONS FOR FLOOD HAZARD REDUCTION

**15.52.450 Standards for recreational vehicles.**

All recreational vehicles placed on sites within Zones A, A1-30, AE, AO and AH on the community's Flood Insurance Rate Map will be on the site for fewer than one hundred eighty consecutive days, and be fully licensed and ready for highway use—a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(Ord. 1708 § 2(part), 1999)

**15.52.460 Floodways.**

Located within areas of special flood hazard established in [Section 15.52.230](#) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvement, and other new development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in the base flood elevation during the occurrence of the base flood discharge.
- B. If subsection A of this section is satisfied, all new construction, substantial improvement, and other proposed new development shall comply with all other applicable flood hazard reduction provisions of Article IV.

(Ord. 1708 § 2(part), 1999)