



# KITTITAS COUNTY FLOOD CONTROL ZONE DISTRICT

## FLOOD DEVELOPMENT PERMIT

**Project:** FD-18- 00012

**Date:** September 12, 2018

**Description:** Install Manufactured home. Structure will be elevated at least 1 foot above Base Flood Elevation (BFE) of 1536.7feet, NGVD 29. Reminder: top of lowest floor elevation could be lowest level of duct work or machinery on the structure to be elevated if no flood proofing is completed. See highlighted text on Page 4 of this Floodplain Development Permit. NFIP Insurance rates may be reduced by elevating first floor 2-3 ft. above BFE.

Please ensure Kittitas County Relevant Codes have been read and understood by all those with an interest in this project. For more information, please call Karen Hodges, CFM at 509.962.7610.

**Landowner:** Camping on the River, Inc., - Shadd McEwan

**Location:** The project is located at 32 S. Thorp Hwy, in a portion of Section 33, T18N, R18E, WM, in Kittitas County, Washington. Parcel number: 18-18-33030-0042.

**Watercourse:** Yakima River  
**FIRM Panel:** 5300950439B  
**Zone:** A5, 100 Year Floodplain  
**Base Flood Elevation:** 1536.7 feet NGVD 29

Permission is granted under the provisions of RCW 86.16 and KCC 14.08 to complete the proposed project. This permit is subject to the flood hazard reduction provisions in Kittitas County Code 14.08. All construction materials shall be resistant to flood damage, and the project shall be constructed using methods and practices that minimize flood damage.

The following information should be submitted to the County before construction:

- Elevation Certificate (FEMA Form 81-3) certifying the elevation of the new building (Section C2 (a) and (d)).
- Detailed Site Plan

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A Final Inspection is required prior to final approval. Please call Kittitas County Public Works at (509) 962-7523 to schedule the final inspection.

Relevant codes that must be followed are shown below:

**14.08.115 Elevation certificates.**

Flood elevation certificates will be required to be submitted to and be permanently maintained by the Public Works Department:

1. For construction drawings prior to issuance of a building permit
2. For a building under construction prior to scheduling of a framing inspection
3. For finished construction prior to issuance of a Certificate of Occupancy

**14.04.040 Mobile, manufactured, and modular homes.**

1. Definitions:
  - a. "Mobile home" is a factory built dwelling built prior to June 15, 1976, to standards other than the HUD Code, and acceptable under applicable state codes in effect at the time of construction or introduction of the home into the State. Mobile homes have not been built since the introduction of the HUD Manufactured Home Construction and Safety Standards Act. A mobile home (pre June 15, 1976) from outside Kittitas County cannot be brought into Kittitas County; however, a mobile home may be moved from one site to another within Kittitas County if a fire & life safety inspection is first performed and approved by Washington State Department of Labor and Industries.
  - b. "Manufactured home" is a single family dwelling built after June 15, 1976 and according to the Department of Housing and Urban Development Manufactured Home Construction and Safety Standards Act, which is a national, preemptive building code. A manufactured home means a structure designed and constructed to be transportable in one or more sections, and is built on a permanent chassis, and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities that include plumbing, heating, and electrical systems contained therein. (See also [RCW 46.04.302](#) and [RCW 43.22.335](#)):
  - c. "Modular home" means a factory-assembled structure designed primarily for use as a dwelling when connected to the required utilities that include plumbing, heating and electrical systems contained therein, does not contain its own running gear and must be mounted on a permanent foundation. A modular home does not include a mobile home or manufactured home.
2. All manufactured, mobile or modular homes shall meet area specific snow load requirements. Snow load requirements shall be determined in the same method utilized for stick framed homes by the Building Official. If the home does not meet the site specific snow load, a snow roof shelter designed to meet the snow load may be constructed over it. A permit for the snow roof must be issued prior to or concurrent with the permit for the placement of the manufactured, mobile or modular home. The roof shelter must be completed and the permit finalized within 90 days of issuance regardless of the status of the manufactured, mobile or modular home placement permit.

3. All mobile, manufactured or modular homes to be located in a Flood Hazard area shall comply with [KCC Chapter 14.08](#) (Flood Damage Prevention).
4. All mobile, manufactured or modular homes located in a Wildland Urban Interface area, as determined by Kittitas County, shall comply with the provisions of the current adopted International Wildland-Urban Interface Code per [KCC 14.04.010](#) (8)
5. All mobile and manufactured homes are State inspected dwellings and shall be placed on foundation systems that meet the requirements per the manufacturer's installation instructions or if the manufacturer is not specific, then to the standards listed in [Chapter 296-150I WAC](#). All footings, foundations, skirting, landings, additions and other external appendages shall be inspected and approved by Kittitas County prior to occupancy.
6. Mobile and manufactured homes may be placed on stands or blocked in accordance with the manufacturer's installation instructions and skirted with materials approved for ground contact or below grade applications. Either of these dwellings placed on a basement shall require engineering. All alterations to a mobile or manufactured home shall require a permit through Washington State Department of Labor and Industries.
7. All modular home footings shall be designed by an engineer and specific to the home.
8. Any additions to a mobile, manufactured or modular home shall be by separate permit through Kittitas County. An additional permit may also be required by the Washington State Department of Labor and Industries.

([Ord. 2015-010](#), 2015; Ord. 2008-22, 2008; Ord. 2007-29, 2007; Ord. 2004-18, 2004; Ord. 98-23, 1998; Ord. 80-2 § 3, 1980; Ord. 71-3 § 2, 1971)

#### **14.08.200 Construction materials and methods.**

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

#### **14.08.210 Utilities.**

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.
3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
4. New water wells shall be constructed in compliance with [WAC 173-160-171](#).
5. Fuel storage tanks shall either be elevated or anchored using methods and practices that minimize flood damage. (consistent with FEMA's "Protecting Building Utilities From Flood

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Damage" guidebook for techniques). (Ord. 2007-22, 2007; Ord. 2001-03; Ord. 93-18 § 5.1.3, 1993).

**14.08.240 Specific standards.**

In all areas of special flood hazards where base flood elevation data has been provided (Zones A1-30, AH, and AE) as set forth in [KCC 14.08.040](#), Basis for establishing the areas of special flood hazard, or [KCC 14.08.120](#), Use of other base flood data, the following provisions are required. (Ord. 200103; Ord. 93-18 § 5.2, 1993).

**14.08.250 Residential construction.**

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation.
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
  - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
  - b. The bottom of all openings shall be no higher than one foot above grade.
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
  - d. Because of hydrodynamic loads, below grade crawlspace construction is not permitted in areas with flood velocities greater than 5 feet per second unless the design is approved by a registered architect or licensed engineer.
3. Any interior or exterior building utility systems must be elevated one-foot or more above the Base Flood Elevation (BFE) or be designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular must be located above the BFE or sealed to prevent the entry of floodwaters.
4. Portions of buildings below the BFE must be constructed using methods and practices that minimize flood damages, and with materials resistant to flood damage. This includes any joists, pony walls, beams, posts, insulation, wall coverings, wall sheathing or other materials that extend below the BFE.
5. The elevation of the interior crawlspace grade (inside of the foundation walls in crawlspace construction) must be at or above the lowest elevation of the exterior grade. Below-grade crawlspace foundations will be allowed only if all of the following conditions are met, in addition to the minimum criteria set forth above in this subsection: (*buildings that have below-grade crawlspaces may have higher flood insurance premiums than buildings that have the preferred crawlspace construction, with the interior elevation at or above the lowest adjacent exterior grade*).
  - a. The interior grade of the crawlspace (below the BFE) must not be more than 2 feet below the lowest adjacent exterior grade.
  - b. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed 4 feet at any point.

- c. There must be an adequate drainage system that removes floodwaters from the interior of the crawlspace. Possible options include natural drainage through porous, well drained soils and drainage systems such as perforated pipes, drainage tiles, gravel or crushed stone drainage by gravity, or mechanical means.
6. Garages attached to a residential structure must have the floor elevated above the BFE or be constructed according to the following conditions:
  - a. The walls must have openings designed to automatically equalize hydrostatic and hydrodynamic flood forces by allowing for the entry and exit of floodwaters. (See the requirements listed above for the residential structure per [14.08.250](#)).
  - b. All portions of the garage below the BFE must be constructed with materials resistant to flood damage. This includes any studs, walls, beams, posts, insulation, wall coverings, wall sheathing or other materials that extend below the BFE.
  - c. Any utility systems within the garage must be elevated one foot or more above the Base Flood Elevation (BFE) or be designed so that floodwaters cannot enter or accumulate within the system components during flood conditions.

(Ord. 2014-015, 2014; Ord. 2007-34, 2007; Ord. 2007-22, 2007; Ord. 2001-03; Ord. 93-18 § 5.2.1, 1993)

#### **14.08.260 Detached accessory buildings (garages and small storage sheds).**

The following special provisions apply only to detached accessory structures used as garages or small storage sheds to single-family residences.

1. Detached accessory structures shall have the lowest floor elevated above the base flood elevation. When an accessory structure represents a minimal investment, the structure need not be elevated. However, the structure must have openings to allow floodwater in and out as required by KCC [14.08.250\(2\)](#) and be constructed using flood resistant materials below the BFE. A minimal investment shall be determined by the applicable guiding authority, or by appeal under the variance procedure and shall be determined, if necessary, on a case-to-case basis. As a general application, an expenditure for the accessory structure of not more than 10 percent of the value of the main structure shall be considered a minimal investment.
2. Accessory structures shall not be used for human habitation and must be limited to parking and storage.
3. Accessory structures shall comply with the foundation opening requirements in [KCC 14.08.250\(2\)](#).
4. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.
5. Accessory structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structure which may result in damage to other structures.
6. Accessory structures must comply with floodway encroachment provisions in [KCC 14.08.300](#).
7. Service facilities such as electrical and heating equipment shall be elevated one foot or more above the base flood elevation.

8. Applicants that elect not to elevate the lowest floor of accessory structures under the provisions of this section shall be notified that flood insurance premium rates may be increased as a result of this practice. The applicant shall be aware that flood insurance rates may be increased as a result of this practice, and a note stating such shall be included in the issuance of related permits.

**14.08.300 Floodways.**

Located within areas of special flood hazard established in KCC 14.08.040 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris and potential projectiles, and erosion potential, the following provisions apply:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.
2. Construction or reconstruction of residential structures is prohibited within designated floodways, except for:
  - a. Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and
  - b. Repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either: (i) before the repair or reconstruction is started, or (ii) if the structure has been damaged, and is being restored, before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety codes which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or to structures identified as historic places shall not be included in the 50 percent.
3. If subsection (1) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of KCC 14.08.180 through 14.08.310, provisions for flood hazard reduction, except for construction and reconstruction of residential structures that is prohibited by subsection (2) of this section.
4. Filling in the floodway is prohibited except for residential maintenance. Residential maintenance is considered the importing of bark or top soil for flower beds and gardens. The quantity of material must be able to be hauled in a pick up truck and not require the use of a commercial dump truck. The total amount of material shall not exceed one load per calendar year.
5. Traditional agricultural practices are exempt.

**14.08.315 Standards for filling, grading in floodplain.**

Filling, grading or other activity that would reduce the effective storage volume shall be mitigated by creating compensatory storage on-site, or off-site if legal arrangements can be

made, to assure that the effective compensatory storage volume will be preserved over time; provided, however, that no increased upstream or downstream flood hazard shall be created by any fill authorized in the floodplain by this chapter or other applicable chapters.

Signed: Karen L. Hodges CFM Date: 9/12/18  
Karen Hodges, Certified Floodplain Manager  
Kittitas County Flood Control Zone District