

ORDINANCE NO. 219

**AN ORDINANCE AMENDING THE TEXT OF MALHEUR COUNTY CODE TITLE 5
CHAPTER 2 ENTITLED FLOOD CONTROL TO CONFORM WITH FEDERAL
FLOODPLAIN REGULATIONS AND OREGON SPECIALTY CODES**

This matter came before the Malheur County Court on October 30, 2019 and November 13, 2019 for public hearings. The Court being fully apprised of the testimony, records and files in this matter finds:

WHEREAS, the hearings were properly noticed according to the requirements of ORS Chapters 197 and 215; and

WHEREAS, this ordinance is necessary to legislatively amend and update the Malheur County Code, as set forth below, with respect to Malheur County's flood control provisions which have not been updated since they were originally codified in 1987; and

WHEREAS, Malheur County's current flood ordinance requires changes in order for the ordinance provisions to comply with the minimum standards for participation in the National Flood Insurance Program (NFIP) found in the Code of Federal Regulations (Title 44 of the Code of Federal Regulations, Part 60 as enforced by the Federal Emergency Management Agency (FEMA)), the Oregon Model Flood Damage Prevention Ordinance and the Oregon Specialty Code; and

WHEREAS, the amendments proposed in this ordinance do not limit or prohibit land uses currently allowed (therefore a Measure 56 Notice was not issued) because at this time there are no revisions to Malheur County's Flood Insurance Rate Maps (FIRM); the "The Flood Insurance Study Of Malheur County", dated June 1985 remains unchanged and is incorporated herein by reference.

NOW, THEREFORE, THE MALHEUR COUNTY COURT ORDAINS AS FOLLOWS:

CHAPTER 2

FLOOD CONTROL

SECTION:

- 5-2-1: Findings
- 5-2-2: Definitions
- 5-2-3: General Provisions
- 5-2-4: Administration
 - 5-2-4-1: Establishment of Development Permit
 - 5-2-4-2: Local Administrator
 - 5-2-4-3: Variance Requests and Appeals
- 5-2-5: Provisions For Flood Hazard Reduction
 - 5-2-5-1: General Standards
 - 5-2-5-2: Specific Standards
 - 5-2-5-3: Floodways
 - 5-2-5-4: Standards For Shallow Flooding Areas
 - 5-2-5-5: Encroachments

5-2-1: FINDINGS:

A. Findings Of Fact:

1. Statutory Authority. The State of Oregon has in ORS 203.035 delegated the responsibility to local government units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry.
2. The flood hazard areas of Malheur County are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base; all of which adversely affect the public health, safety and general welfare.
3. These flood losses may be caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, cause damage in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

- B. **Statement Of Purpose:** It is the purpose of this Chapter (or ordinance) to promote the public health, safety and general welfare, and to minimize public and private losses due to flooding in flood hazard areas by provisions designed:
1. To protect human life and health;
 2. To minimize expenditure of public money for costly flood control projects;
 3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 4. To minimize prolonged business interruptions;
 5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
 6. To help maintain a stable tax base by providing for the second use and development of flood hazard areas so as to minimize future flood blight areas caused by flooding;
 7. Notify potential buyers that property is in a special flood hazard area; and
 8. Notify those who occupy the areas of special flood hazard areas that they assume responsibility for their actions.
- C. **Methods Of Reducing Flood Losses:** In order to accomplish its purposes, this Chapter includes methods and provisions for:
1. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
 2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
 3. Controlling the alteration of natural flood plains, stream channels and natural protective barriers, which help accommodate or channel flood waters;
 4. Controlling filling, grading, dredging and other development which may increase flood damage; and
 5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

5-2-2: DEFINITIONS:

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meanings they have in common usage and to give this chapter its most reasonable application.

APPEAL: Means a request for a review of the planning director's interpretation of any provision of this chapter or a request for a variance.

AREA OF SHALLOW

FLOODING: A designated Zone AO, AH, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet (1' - 3') where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL

FLOOD HAZARD: The land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR. "Special flood area zone" is synonymous in meaning with the phrase "area of special flood hazard".

BASE FLOOD: The flood having a one percent (1%) chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood". Designation on maps always include the letters A or V.

BASE FLOOD

ELEVATION: The elevation to which floodwater is anticipated to rise during the base flood.

BASEMENT: Any area of the building having its floor subgrade (below ground level) on all sides.

BELOW-GRADE

CRAWL SPACE: Means the enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed 4 feet at any point.

CHAPTER: This ordinance as codified in the Malheur County Code Title 5 Chapter 2.

DEVELOPMENT: Any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

FLOOD OR FLOODING:

Means: 1. A general and temporary condition of partial or complete inundation of normally dry land areas from: a) The overflow of inland waters. b) The unusual and rapid accumulation or runoff of surface waters from any source. c) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in 1. b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current. 2. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph 1. a) of this definition.

FLOOD ELEVATION

STUDY: An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

FLOOD INSURANCE

RATE MAP (FIRM): The official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

FLOOD INSURANCE

STUDY (FIS): See “Flood Elevation Study”.

FLOODPLAIN

MANAGEMENT: The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

FLOOD PROOFING: Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

FLOODWAY: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot (1') or other designated height. Also referred to as "Regulatory Floodway".

FUNCTIONALLY

DEPENDENT USE: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long term storage or related manufacturing facilities.

HIGHEST ADJACENT

GRADE: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC

STRUCTURE: Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

a. By an approved state program as determined by the Secretary of the Interior, or

b. Directly by the Secretary of the Interior in states without approved programs.

LOWEST FLOOR: The lowest floor of the lowest enclosed area (including “Basement”). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter.

MANUFACTURED DWELLING:

A structure, transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when attached to the required utilities. The term “manufactured dwelling” does not include a “recreational vehicle” and is synonymous with “manufactured home”.

MANUFACTURED DWELLING PARK OR SUBDIVISION:

A parcel (or contiguous parcels) of land divided into two (2) or more manufactured dwelling lots for rent or sale.

MEAN SEA LEVEL:

For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which Base Flood Elevations shown on a community’s Flood Insurance Rate Map are referenced.

NEW

CONSTRUCTION:

For floodplain management purposes, “new construction” means structures for which the "start of construction" commenced on or after the effective date of this chapter and includes any subsequent improvements to such structures.

PLANNING

DIRECTOR:

The Malheur County Planning Director who serves as the Floodplain Administrator.

**RECREATIONAL
VEHICLE:**

For floodplain management purposes, means a vehicle which is: 1. Built on a single chassis; 2. 400 square feet or less when measured from the largest horizontal projection; 3. Designed to be self-propelled or permanently towable by a light duty truck; and 4. Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel, or seasonal use.

**SPECIAL FLOOD
HAZARD AREA
(SFHA):**

See “area of special flood hazard”.

**START OF
CONSTRUCTION:**

Includes substantial improvement and means the date the building permit was issued; provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the installation of a manufactured dwelling on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE:

Means, for floodplain management purposes, a walled and roofed building including a gas or liquid storage tank that is principally above ground, as well as a manufactured dwelling.

**SUBSTANTIAL
DAMAGE:**

Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

**SUBSTANTIAL
IMPROVEMENT:**

Any repair, reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a “historic structure”, provided that the alteration will not preclude the structure’s continued designation as a “historic structure”.

VARIANCE:

A grant of relief by Malheur County from the terms of flood management regulation.

VIOLATION:

The failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance (or chapter) is presumed to be in violation until such time as that documentation is provided.

5-2-3: GENERAL PROVISIONS:

- A. **Lands To Which Provisions are Applicable:** This Chapter shall apply to all areas of Special Flood Hazards Areas (SFHA) within the jurisdiction of Malheur County excluding areas within incorporated city limits (“community”).
- B. **Basis For Establishing Areas Of Special Flood Hazard:** The areas of special flood hazard identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study Of Malheur County", dated June 1985, with accompanying Flood Insurance Rate Maps (FIRM) and flood boundary-floodway maps which are hereby adopted by reference and declared to be a part of this Chapter. That flood insurance study described above is on file in the Malheur County planning office located in the Malheur County Courthouse.
- C. **Coordination with State of Oregon Specialty Codes:** Pursuant to the requirement established in ORS 455 that Malheur County administers and enforces the State of Oregon Specialty Codes, Malheur County does hereby acknowledge that the Oregon Specialty Codes contain certain provisions that apply to the design and construction of buildings and structures located in special flood hazard areas. Therefore, this Chapter (ordinance) is intended to be administered and enforced in compliance with the Oregon Specialty Code.
- D. **Compliance:** All development within special flood hazard areas is subject to the terms of this Chapter and required to comply with its provisions and all other applicable regulations.
- E. **Penalties For Noncompliance:** No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Chapter and other applicable regulations. Violation of the provisions of this Chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor under state law. Any person who violates this Chapter or fails to comply with any of its requirements shall be subject to the fines, penalties and remedies provided for in the Malheur County Code¹. Nothing herein contained shall prevent the Malheur County Court from taking such other lawful action as is necessary to prevent or remedy any violation.
- F. **Abrogation And Greater Restrictions:** This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this Chapter and other ordinances, easements, covenants or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
- G. **Severability:** This Chapter and the various parts thereof are hereby declared to be severable. If any section, clause, sentence or phrase of this Chapter is held invalid or unconstitutional by

¹ See subsection 1-9A-3C of this Code.

any court of competent jurisdiction, said holding shall in no way effect the validity of the remaining portions of this Chapter.

H. Interpretation: In the interpretation and application of this Chapter, all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the governing body; and
3. Deemed neither to limit nor repeal any other powers granted under state statutes.

I. Warning And Disclaimer Of Liability: The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This Chapter does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of Malheur County, any officer or employee thereof or the Federal Insurance Administration for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

5-2-4: ADMINISTRATION:

5-2-4-1: ESTABLISHMENT OF DEVELOPMENT PERMIT: A development permit shall be obtained before construction or development begins within any area laterally (horizontally) within the special flood hazard area established in subsection 5-2-3 B of this Chapter. The development permit shall be required for all structures, including manufactured dwellings, and for all development, as defined in 5-2-2, including fill and other activities. Application for a development permit shall be made on forms furnished by the Malheur County Planning Director/ Floodplain Administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage of facilities and the location of the foregoing.

Specifically, the following information is required:

- A. In Riverine flood zones, the proposed elevation (in relation to mean sea level), of the lowest floor (including basement) and all attendant utilities of all new and substantially improved structures.
- B. Proposed elevation in relation to mean sea level to which any non-residential structure will be flood proofed.
- C. Certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet the flood proofing criteria in subsection 5-2-5-2 C. of this Chapter.
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- E. Base Flood Elevation data for subdivision proposals or other development when required per sections 5-2-4-2. B. and 5-2-5-1 F.
- F. Substantial improvement calculations for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure.
- G. The amount and location of any fill or excavation activities proposed.

5-2-4-2: LOCAL ADMINISTRATOR:

- A. Designation: The Malheur County Planning Director is hereby appointed to administer and implement this Chapter by granting or denying development permit applications in accordance with its provisions. The Planning Director, acting as the Floodplain Administrator, may delegate authority to implement these provisions.
- B. Duties And Responsibilities: Duties of the Planning Director /Floodplain Administrator shall include, but not be limited to:

1. Permit Review:

- a. Review all development permits to determine that the permit requirements of this Chapter have been satisfied.
- b. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
- c. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of subsection 5-2-5-3 A. of this Chapter are met.
- d. Review all development permits to determine if the proposed development is located in an area where Base Flood Elevation (BFE) data is available either through the Flood Insurance Study (FIS) or from another authoritative source. If BFE data is not available then ensure compliance with the provisions of sections 5-2-5-1. G. and
- e. Provide to building officials the Base Flood Elevation (BFE) applicable to any building requiring a development permit.
- f. Review all development permit applications to determine if the proposed development qualifies as a substantial improvement as defined above.
- g. Review all development permits to determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in section 5-2-4-2 B. 5.
- h. Review all development permits to determine if the proposed development activity includes the placement of fill or excavation.

2. Use Of Other Base Flood Data: When Base Flood Elevation data has not been provided in accordance with subsection 5-2-3 of this Chapter, the Planning Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Sections, 5-2-5-1, 5-2-5-2 and 5-2-5-3 of this Chapter.

3. Information To Be Obtained And Maintained: The following information shall be obtained and maintained and shall be made available for public inspection as needed:

a. Obtain, record and maintain the actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation (BFE) data is provided through the Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM), or obtained in accordance with 5-2-5-1 G. of this Chapter.

b. Obtain and record the elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that requirements of sections 5-2-5-3 and 5-2-4-2 B.1.b are adhered to.

c. Upon placement of the lowest floor or a structure (including basement) but prior to further vertical construction, obtain an Elevation Certificate (EC) recording the actual elevation (in relation to mean sea level) of the lowest floor (including basement), all attendant utilities in place, and the location and height of all flood openings.

d. Obtain As-built Elevation Certificate (EC) recording the actual elevation (in relation to mean sea level) of the lowest floor (including basement), and all attendant utilities, and the location and height of all flood openings prior to the final inspection.

e. Maintain all Elevation Certificates (EC) required under this Chapter.

f. Obtain, record, and maintain the elevation (in relation to mean sea level) to which the structure and all attendant utilities were flood proofed for all new or substantially improved flood proofed structures where Base Flood Elevation (BFE) data is provided through FIS, FIRM, or obtained in accordance with 5-2-5-1 G. of this Chapter.

g. Maintain all flood proofing certificates required under this Chapter.

h. Record and maintain all variance actions, including justification for their issuance.

i. Obtain and maintain all hydrologic and hydraulic analyses performed as required under 5-2-5-3.

j. Record and maintain all Substantial Improvement and Substantial Damage calculations and determinations as required under section 5-2-4-2 B. 7.

k. Maintain for public inspection all records pertaining to the provisions of this Chapter.

4. Community Boundary Alterations: The Floodplain Administrator shall notify the Federal Insurance Administrator in writing whenever the boundaries of the community have been modified by annexation or the community has assumed authority or no longer has authority to adopt and enforce floodplain management regulations for a particular area to ensure that all Flood Hazard Boundary Maps (FHBM) and Flood Insurance Rate Maps (FIRM) accurately represent the community's boundaries. Include within such notification a copy of a map of the community suitable for reproduction, clearly delineating the new corporate limits or new area for which the community has assumed or relinquished floodplain management regulatory authority.

5. Alteration Of Watercourses: Notify adjacent communities, the Department of Land Conservation and Development, and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration. The notification shall be provided by the applicant to the Federal Insurance Administration as a Letter of Map Revision (LOMR) along with either:

a. A proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or

b. Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance.

The applicant shall be required to submit a Conditional Letter of Map Revision (CLOMR) when required under section 5-2-4-2 B. 6. Ensure compliance with all applicable requirements in sections 5-2-4-2 B. 6. and 5-2-5-1. A.

6. Requirement to Submit New Technical Data:

a. A community's flood base elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, a community shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data in accordance with Section 44 of the Code of Federal Regulations (CFR), sub-section 65.3 The Planning Director/Floodplain Administrator may require that applicant submit such data and review fees required for compliance with this section through the applicable FEMA Letter of Map Change (LOMC) process.

b. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for:

i. Proposed floodway encroachments that increase the base of the flood elevation; and

ii. Proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway.

c. An applicant shall notify FEMA within six (6) months of project completion when an applicant has obtained a Conditional Letter of Map Revision (COLMR) from FEMA. This notification to FEMA shall be provided as a Letter of Map Revision (LOMR).

d. The Floodplain Administrator shall be under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this code and all applicable state and federal laws.

7. Substantial Improvement and Substantial Damage Assessments and Determinations. Conduct Substantial Improvement (SI) (as defined in Section 5-2-2) reviews for all structural development proposal applications and maintain a record of SI calculations within permit files in accordance with Section 5-2-4-2 B. Conduct Substantial Damage (SD)(as defined in Section 5-2-2) assessments when structures are damaged due to a natural hazard event or other causes. Make SD determinations whenever structures within the special flood hazard area (as established in section 5-2-3 B.) are damaged to the extent that the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

8. Interpretation Of FIRM Boundaries: Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation consistent with the standards of section 60.6 of the Rules and Regulations of the National Flood Insurance Program (44 CFR 59-76).

5-2-4-3: VARIANCE REQUESTS:

A. Variance Procedure: The issuance of a variance is for floodplain management purposes only. Flood insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance.

B. Conditions For Variances:

1. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation of historic structures will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
2. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half ($1/2$) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the one foot (1') above base flood level, providing subsections 5-2-4-3 B. 3. - 7. have been fully considered. As the lot size increases beyond the one-half ($1/2$) acre, the technical justification required for issuing the variance increases.
3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
5. Variances shall only be issued upon:
 - a. A showing of good and sufficient cause;
 - b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

6. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria in 5-2-4-3 B. 2. - 5. are met, and the proposed structure of other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

7. Variance Notification: Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the Base Flood Elevation will result in increased premium rates for flood insurance and that such construction below the Base Flood Elevation increases risks to life and property. Such notification and a record of all variance actions, including justification for their issuance, shall be maintained in accordance with section 5-2-4-2 B. above.

5-2-5: PROVISIONS FOR FLOOD HAZARD REDUCTION:

5-2-5-1: GENERAL STANDARDS: In all areas of special flood hazards (SFHA), the following standards are required:

A. Alteration of Watercourses:

1. Require that the flood carry capacity within the altered or relocated portion of said watercourse is maintained. Require that maintenance is provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Require compliance with section 5-2-4-2 B 5 and 5-2-4-2 B 6.

B. Anchoring:

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

2. All manufactured dwellings must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over the top or frame ties to ground anchors (reference FEMA's "Manufactured Home Installation In Flood Hazard Areas" guidebook for additional techniques).

C. 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, duct systems, 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 and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during conditions of flooding. In addition, electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall:
 - a. if replaced as a part of a substantial improvement meet all the requirements of this section.

D. Utilities Water Supply, Sanitary Sewer, and On-Site Waste Disposal Systems:

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.
3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding consistent with the Oregon Department of Environmental Quality.

E. Tanks:

1. Underground tanks shall be anchored to prevent flotation, collapse and lateral movement under conditions of the base flood.
2. Above-ground tanks shall be installed at or above the base flood level or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood.

F. Subdivision, Commercial, Industrial & Other Development Proposals: This subsection applies to new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions).

1. All development proposals shall be consistent with the need to minimize flood damage.
2. All development proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
3. All development proposals shall have adequate drainage provided to reduce exposure to flood damage.
4. All subdivision proposals greater than 50 lots or 5 acres, whichever is the lesser, shall include within such proposals, Base Flood Elevation data.

G. Use of Other Base Flood Data:

1. Where Base Flood Elevation data has not been provided, the Floodplain Administrator shall obtain, review, and reasonably utilize any Base Flood Elevation data available from federal, state, other source, in order to administer section 5-2-5-1. For subdivision proposals or other development proposals Base Flood Elevation data shall be generated for all proposals greater than 50 lots or 5 acres, whichever is lesser.
2. Base Flood Elevations shall be generated for all development proposals in compliance with Oregon Specialty Codes, with the exception of development proposals located within a Riverine Zone A. Development proposals located within a Riverine Zone A shall be reasonably safe from flooding; the test of reasonableness includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet (2') above grade in these zones may result in higher insurance rates.

H. Structures Located in Multiple or Partial Flood Zones. In compliance with the State of Oregon Specialty Codes: 1. When a structure is located in multiple flood zones on the community's Flood Insurance Rate Maps (FIRM) the provisions for the more restrictive flood zone shall apply. 2. When a structure is partially located in a Special Flood Hazard Area (SFHA), the entire structure shall meet the requirements for new construction and substantial improvements.

5-2-5-2: SPECIFIC STANDARDS: In all areas of special flood hazards where base flood elevation data has been provided as set forth in subsection 5-2-3 B or 5-2-4-2 B. 2. of this Chapter, the following standards are required. These specific standards shall apply in addition to the General Standards contained in section 5-2-5-1 of this Chapter:

A. Residential Construction /Flood Openings:

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above one foot (1') above Base Flood Elevation.
2. Fully enclosed areas below the Base Flood Elevation, including a crawl space are prohibited, or shall:
 - a. Be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.
 - b. Be used solely for parking, storage, or building access.
 - c. Be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - i. A minimum of two (2) openings.
 - ii. The total net area of non-engineered openings shall be not less than one square inch for every square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosed walls.
 - iii. The bottom of all openings shall be no higher than one foot (1') above grade.
 - iv. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area.
 - v. Openings shall not be less than 3 inches in any direction in the plane of the wall.
3. For structures that require building permits under the State of Oregon Specialty Code, flood openings shall be installed such that they comply with section 5-2-5-2 A. 2 above and the following provisions:

- a. There shall not be less than two openings on different sides of each enclosed area; if a building has more than one enclosed area below the Base Flood Elevation, each area shall have openings.
- b. Openings shall be permitted to be installed in doors and windows on the condition that they fully comply with the requirements for flood openings stated in this Chapter.

B. Garages:

1. Attached garages may be constructed with the garage floor slab below the Base Flood Elevation (BFE) if the following requirements are met:

- a. The floors are at or above grade on not less than one side;
- b. The garage is used solely for parking, building access, and/or storage;
- c. The garage is constructed with flood openings in compliance with section 5-2-5-2 A. to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of flood water;
- d. The portions of the garage constructed below the BFE are constructed with materials resistant to flood damage;
- e. The garage is constructed in compliance with the general standards above; and
- f. The garage is constructed with electrical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

2. Detached garages must be constructed in compliance with the standards for appurtenant structures in section 5-2-5-2 F.

C. Nonresidential Construction: New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of one foot (1')(can increase up to 3') above the Base Flood Elevation (BFE); or, together with attendant utility and sanitary facilities, shall:

1. Be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water.
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in subsection 5-2-4-2 B. of this Chapter.
4. Nonresidential structures that are elevated, not flood proofed, must meet the same standards for space below the lowest floor as described in subsection A2 of this section.
5. Applicants flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot (1') below the flood proofed level (e.g., a building constructed to the base flood level will be rated as 1 foot below that level).
6. Applicants shall supply a maintenance plan for the entire structure to include but not limited to: exterior envelope of structure; all penetrations to the exterior of structure; all shields, gates, barriers, or components designed to provide flood proofing protection to the structure; all seals or gaskets for shields; gates, barriers, or components; and, the location of all shields, gates, barriers, and components, as well as all associated hardware, and any materials or specialized tools necessary to seal the structure.
7. Applicants shall supply an Emergency Action Plan (EAP) for the installation and sealing of the structure prior to a flooding event that clearly identifies what triggers the EAP and who is responsible for enacting the EAP.

D. **Manufactured Dwellings:** All manufactured dwellings to be installed or substantially improved within zones A1-30, AH and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured dwelling is at or above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of subsection 5-2-5-1 B.2. of this Chapter.

E. **Recreational Vehicles:** Recreational vehicles placed on sites are required to:

1. Be on the site for fewer than 180 consecutive days, and
2. Be fully licensed and ready for highway use, 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; or
3. Meet the requirements of section 5-2-5-2 D including the anchoring and elevation requirements for manufactured dwellings.

- F. Appurtenant (Accessory) Structures: Relief from elevation or flood proofing requirements for residential and non-residential structures in Riverine (Non-coastal) flood zones may be granted for appurtenant structures that meet the following requirements:
1. Appurtenant structures must only be used for parking, access, and/or storage and shall not be used for human habitation.
 2. In compliance with State of Oregon Specialty Codes, appurtenant structures on properties that are zoned residential are limited in size to less than 200 square feet, or 400 square feet if the property is greater than two (2) acres in area and the proposed appurtenant structure will be located a minimum of 20 feet from all property lines. Appurtenant structures on properties that are zoned as non-residential are limited in size to 120 square feet.
 3. The portions of the appurtenant structure located below the Base Flood Elevation must be built using flood resistant materials.
 4. The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.
 5. The appurtenant structure must be designed and constructed to equalize hydrostatic flood forces on exterior walls and comply with the requirements for flood openings in section 5-2-5-2 A.
 6. Appurtenant structures shall be located and constructed to have low damage potential.
 7. Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed in compliance with section 5-2-5-1 E.

G. Below-Grade Crawl Spaces.

1. A building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structures resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required flood openings stated in 5-2-5-2 A. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than five (5) feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer. Other types of foundations are recommended for these areas.
2. The crawlspace is an enclosed area below the Base Flood Elevation (BFE) and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exist of floodwaters. The bottom of each flood vent opening can be no more than one (1) foot above the lowest adjacent exterior grade.

3. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottom of the joists and all insulation above the BFE.
4. Any building utility system within the crawlspace must be elevated above BFE or designed so that the floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.
5. The interior grade of a crawlspace below the BFE must not be more than two (2) feet below the lowest adjacent exterior grade.
6. 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 four (4) feet at any point. The height limitation is the maximum allowable unsupported wall height according to engineering analyses and building code requirements for flood hazard areas.
7. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles or gravel or crushed stone drainage by gravity or mechanical means.
8. The velocity of floodwaters at the site shall not exceed five (5) feet per second for the crawlspace. For velocities in excess of five (5) feet per second, other foundation types should be used.

5-2-5-3: FLOODWAYS: Located within the special flood hazard areas established in subsection 5-2-3B of this Chapter are areas designed as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway unless:
 1. Certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment shall not result in any increase in flood levels of the community during occurrence of the base flood discharge; Or

2. A Conditional Letter of Map Revision (CLOMR) is applied for and approved by the Federal Insurance Administrator and the requirements for such revision as established under Volume 44 of the Code of Federal Regulations, Section 65.12 are fulfilled.

B. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Chapter.

5-2-5-4: STANDARDS FOR SHALLOW FLOODING AREAS: Shallow flooding areas appear on FIRMs as AO zones with depth designations or as AH zones with Base Flood Elevations. For AO zones the base flood depths range from one (1) to three (3) feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow.

A. Standards for both AO and AH zones. For both AO and AH zones, adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

B. Standards for AH Zones. Development within AH Zones must comply with the standards in sections 5-2-5-1, 5-2-5-2 and 5-2-5-4 A.

C. Standards for AO Zones. In AO zones, the following provisions apply in addition to the requirements in sections 5-2-5-1 and 5-2-5-4 A.

1. New construction and substantial construction improvement of residential structures and manufactured dwellings within AO zones shall have the lowest floor, including basement, elevated above the highest grade adjacent to the building, at minimum above the depth number specified on the Flood Insurance Rate Maps (FIRM) (at least two (2) feet if no depth number is specified). For manufactured dwellings the lowest floor is considered to be the bottom of the longitudinal chassis frame beam.

2. New construction and substantial improvements of non-residential structures within AO zones shall either:

- a. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at minimum above the depth number specified on the Flood Insurance Rate Maps (FIRM)(at least two (2) feet if no depth number is specified) ; or

- b. Together with attendant utility and sanitary facilities, be completely flood proofed to or above two (2) feet above the highest adjacent grade so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of

resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as stated in section 5-2-5-2 C. 3.

3. Recreational vehicles placed on sites within AO Zones on the community's Flood Insurance Rate Maps (FIRM) shall be either:
 - a. Be on the site for fewer than 180 consecutive days, and
 - b. Be fully licensed and ready for highway use, on its wheels or jacking system, and is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
 - c. Meet the requirements above, including elevation and anchoring requirements for manufactured dwellings.
4. In AO zones, new and substantially improved appurtenant structures must comply with the standards in section 5-2-5-2 F.
5. Enclosed areas beneath elevated structures shall comply with the requirements in section 5-2-5-2 A.

5-2-5-5: ENCROACHMENTS: In those portions of the community where base flood elevations have been provided but floodways have not, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot (1') at any point.

EMERGENCY: This ordinance is immediately necessary for the preservation of the public peace, health and safety; an emergency is hereby declared to exist and this ordinance shall take effect immediately upon its passage.

EFFECTIVE DATE: November 13, 2019.

Malheur County Court Judge Dan P. Joyce

Malheur County Commissioner Don Hodge

Malheur County Commissioner Larry Wilson

ATTEST:

Kim Ross, Recording