

**CHAPTER X
FLOOD DAMAGE PREVENTION**

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§10.1 – IN GENERAL

After the receipt of an address assignment, the planning office shall determine whether the site is located in a designated floodplain, and the applicability of stormwater regulations. Notifications to affected parties of the necessity to comply with county floodplain regulations, and that state and/or county stormwater regulations may be applicable, shall be made promptly after receipt of address assignment notification.

§10.2 – FLOOD DAMAGE PREVENTION

A. Definitions Referenced

The definitions of certain terms referenced in this Section are set forth in Chapter III, “Definitions”, of the Planning and Development Ordinance of Benton County.

B. Findings of Fact

1. The flood hazard areas of the county are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.
2. These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, flood proofed or otherwise protected from flood damage.

C. Statement of Purpose

It is the purpose of this article to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

1. Protect human life and health;
2. Minimize the expenditure of public money for costly flood control projects;
3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. Minimize prolonged business interruptions;
5. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
6. Help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize future flood blight areas; and
7. Ensure that potential buyers are notified that property is in a flood area.

D. Applicability

This article shall apply to all areas of special flood hazard within the jurisdiction of the County.

E. Basis For Establishing Areas of Special Flood Hazard

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Benton County, Arkansas and Incorporated Areas" dated June 5, 2012 with accompanying flood insurance rate maps (FIRM), dated June 5, 2012 for the following maps are adopted by reference and declared to be part of this Ordinance.

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|----------------|-----------------|
| 1. 05007C0095K | 7. 05007C0260K |
| 2. 05007C0115K | 8. 05007C0265K |
| 3. 05007C0220K | 9. 05007C0270K |
| 4. 05007C0235K | 10. 05007C0280K |
| 5. 05007C0255K | 11. 05007C0290K |
| 6. 05007C0245K | |

The areas of special flood hazard identified by the FEMA for the remainder of FIRM maps dated September 28, 2007 and listed in the FIRM Map Index, Map Number 05007CIND0B, shall continue in use for flood hazard identification.

F. Warning and Disclaimer of Liability

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the county or any official or

employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made under this article.

G. Severability

If any court of competent jurisdiction finds that any section, clause, sentence, or phrase of this Ordinance is invalid or unconstitutional, that finding in no way affects the validity of the remaining portions of this Ordinance.

H. Compliance

“No structure or land shall be located, altered or have its use changed without full compliance with the terms of this Ordinance and other applicable regulations.”

I. Interpretation

In the interpretation and application of this Ordinance, all provisions shall be:

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

J. Abrogation and Greater Restrictions

This Ordinance does not repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. Whenever there is a conflict or overlap between this Ordinance and another ordinance, easement, covenant, or deed restriction, the instrument with the more stringent restrictions applies.”

§10.3 – ADMINISTRATION

A. Development Permit

A Floodplain Development Permit is required for all structural development, placement of manufactured structures, clearing, grading, mining, drilling, dredging, placement of fill, excavating, watercourse alteration, drainage improvements, roadway or bridge construction, individual water or sewer installations or any other development in a Special Flood Hazard Area to ensure conformance with the provisions of this Ordinance.

The permitted site shall be posted with a notice, provided by the floodplain administrator, evidencing the issuance of a development permit. Said notice shall be visible from a point of vehicular access to the property, and remain posted until the development is completed.

B. Permit Procedures

1. Application for a floodplain development permit under this Ordinance shall be presented to the floodplain administrator on forms furnished by him/her and may include but not be limited to plans in duplicate drawn to scale showing the location, dimensions and elevation of proposed

landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of such in relation to areas of special flood hazard. Additionally, the following information is required:

- a. Elevation, in relation to mean sea level, of the lowest floor, including basement, of all new and substantially improved structures.
 - b. Elevation in relation to mean sea level to which any nonresidential structure shall be flood-proofed.
 - c. A certificate from a registered professional engineer or architect that the nonresidential flood-proofed structure shall meet the flood-proofing criteria of section 10.4(B).
 - d. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
 - e. A record of all such information in accordance with section 10.3(D).
2. Approval or denial of a development permit by the floodplain administrator shall be based on all of the sections of this article and the following relevant factors:
- a. The danger to life and property due to flooding or erosion damage.
 - b. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - c. The danger that materials may be swept onto other lands to the injury of others.
 - d. The compatibility of the proposed use with existing and anticipated development.
 - e. The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - f. The costs of providing governmental services during and after flood conditions, including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems.
 - g. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site.
 - h. The necessity to the facility of a waterfront location, where applicable.
 - i. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.
 - j. The relationship of the proposed use to the comprehensive plan for that area.

C. Designation of Floodplain Administrator

The County Judge, or his designee, is appointed as the floodplain administrator to administer and implement the provisions of this article and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

D. Duties and Responsibilities of the Floodplain Administrator

Duties and responsibilities of the floodplain administrator shall include but are not limited to the following:

1. Maintain and hold open for public inspection all records pertaining to this article.
2. Shall review permit applications to determine whether a proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding.

3. Review, approve or deny all applications for development permits required by this article.
4. Review permits for proposed development to ensure that all necessary permits have been obtained from those federal, state or local governmental agencies (including section 404 of the Federal Water Pollution Control Act amendments of 1972, 33 USC 1334) from which prior approval is required.
5. Where interpretation is 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), make the necessary interpretation.
6. Notify, in riverine situations, adjacent communities and the Arkansas Natural Resource Commission prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency. Ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.
7. When base flood elevation data have not been provided in accordance with section 10.2 (E) the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a federal, state or other source, in order to administer sections 10.4 (B) -10.7 (inclusive).
8. When a regulatory floodway has not been designated, require that no new construction, substantial improvements or other development, including fill, shall be permitted within zones AE on the county's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the county.
9. Obtain accreditation each year as required by A.C.A. §14-268-106 through the State Coordinating Agency, which is the Arkansas Natural Resources Commission.
10. Evaluate proposed projects for conformance with No Adverse Impact principles." part (b) "Under 44 CFR 65.12 of the National Flood Insurance Program (NFIP) regulations, the county may approve certain development in zones AE or AH on the county's FIRM which increases the water surface elevation of the base flood by more than one (1) foot, provided the County first applies for a conditional letter of map revision through FEMA."

E. Variance Procedures:

1. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the state inventory of historic places, without regard to the procedures set forth in this article.
2. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided the relevant factors in section 38-52(b) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
3. Upon consideration of the factors noted in subsections (a) through (f) of this section and the intent of this article, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this article.
4. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
5. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation 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.

6. Prerequisites for granting variances shall be as follows:
 - a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - b. Variances shall only be issued upon:
 - a. Showing a 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.
 - c. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
7. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that: (1) The criteria outlined in subsections (a) through (i) of this section are met; and (2) The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

F. Appeals

1. All appeals shall be reviewed by the Board of Appeals in accordance with §2.2 of this Ordinance. The Board of Appeals shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision or determination made by the floodplain administrator in the enforcement or administration of this regulation.
2. The Board of Appeals may attach such conditions to the granting of variances as it deems necessary to further the purpose and objective of these regulations.
3. Any person aggrieved by any decision of the Board of Appeals may appeal such decision as per the provisions of §2.4 of this Ordinance
4. The floodplain administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.

§10.4 – FLOOD DAMAGE PREVENTION

A. Methods of Reducing Flood Losses:

In order to accomplish its purposes, this article uses the following methods:

1. Restrict or prohibit uses that are dangerous to health, safety or property in times of flood or that cause excessive increases in flood heights or velocities.
2. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
3. Control the alteration of natural floodplains, stream channels and natural protective barriers, which are involved in the accommodation of floodwaters.
4. Control filling, grading, dredging and other development which may increase flood damage.
5. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

B. General Standards:

In all areas of special flood hazards the following are required for all new construction and substantial improvements:

1. All new construction or substantial improvements shall be designed or modified and 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 new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
3. All new construction or substantial improvements shall be constructed with materials resistant to flood damage.
4. All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and located to prevent water from entering or accumulating within the components during conditions of flooding.
5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
6. New and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters.
7. Onsite waste disposal systems shall be located to avoid impairment to or contamination from them during flooding.
8. For the purposes of this article, all mixed-use structures are subject to the more stringent requirements of residential structures.

9. A substantial improvement or substantial damage to an existing structure triggers a requirement to bring the entire structure into full compliance with the provisions of this article. The existing structure, as well as any reconstruction, rehabilitation, addition, or other improvement, must meet the standards of new construction in this article.
10. Any improvement to an existing structure that is less than a substantial improvement requires the improvement, but not the existing structure, to be in full compliance with the provisions of this article.
11. Construction of basement foundations in any Special Flood Hazard Area is prohibited.
12. The placement of a manufactured home in the floodway is prohibited.
13. All critical facilities constructed or substantially improved in Special Flood Hazard Areas (SFHA) must be constructed or modified to exceed 500-year flood protection standards or located outside the SFHA.

C. Specific Standards.

In all areas of special flood hazards (Zones A and AE), except areas of shallow flooding, (Zones AO and AH) the following are required:

1. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above an elevation one foot above the base flood elevation. This elevation must be documented on an Elevation Certificate properly completed by a registered professional engineer, architect, or land surveyor, who shall submit a certification to the floodplain administrator that the standard of this subsection, as proposed in section 10.3 is satisfied.
2. Non-Residential Construction. New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to or above an elevation one (1) foot above the base flood level or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure 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. A registered professional engineer or architect shall develop or review structural design, specifications and plans for the construction and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification, which includes the specific elevation in relation to mean sea level to which such structures are flood-proofed, shall be maintained by the floodplain administrator.
3. Enclosures. New construction and substantial improvements, with fully enclosed areas (such as garages and crawl spaces) below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are below the base flood elevation and subject to flooding, shall be designed to automatically equalize hydrostatic 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 meet or exceed the following minimum criteria:

- a. A minimum of two openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottoms of all openings shall be no higher than one (1) foot above grade.
- c. Openings may be equipped with screens, louvers, valves or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

4. Manufactured Homes.

- a. All manufactured homes placed within zone A on a county's FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this subsection, manufactured homes must be elevated one foot or more above the base flood elevation and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include but are not limited to use of over-the-top or frame ties to ground anchors. This is in addition to all applicable state and local anchoring requirements for resisting wind forces. Screw augers or expanding anchors will not satisfy the requirement of this provision.
- b. Manufactured homes that are placed or substantially improved within zones AH and AE on the county's FIRM on sites:
 - 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 which a manufactured home has incurred substantial damage as a 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 an elevation one foot above the base flood elevation and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
- c. Manufactured homes placed or substantially improved on sites in an existing manufactured home park or subdivision within zones AH and AE on the county's FIRM that are not subject to this subsection shall be elevated so that either:
 - 1) The lowest floor of the manufactured home is at or above an elevation one foot above the base flood elevation; or
 - 2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and securely anchored to an adequately anchored foundation system to resist

flotation, collapse, and lateral movement.

5. Recreational Vehicles. All recreational vehicles placed on sites within zones AH and AE on the county's FIRM shall either:
 - a. Be on the site for fewer than 180 consecutive days
 - b. Be fully licensed and ready for highway use, or
 - c. Meet the permit requirements of section 10.3 (B) and the elevation and anchoring requirements for manufactured homes in Section 11.4 (C) . 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. In Zone A, the applicant or the applicant's agent must determine a base flood elevation prior to construction. The BFE will be based on a source or method approved by the local floodplain administrator.

§10.5 – STANDARDS FOR SUBDIVISION PROPOSALS

- A. All residential subdivision, commercial business park proposals, including the placement of manufactured home parks and subdivisions, shall be consistent with sections 10.2 and section 10.4.
- B. All proposals for the development of residential subdivision, commercial business park proposals, including the placement of manufactured home parks and subdivisions, shall meet the development permit requirements of sections 10.3 (A) and (B).
- C. Base flood elevation data shall be generated for subdivision proposals, site plan proposals, and other proposed developments, including the placement of manufactured home parks and subdivisions if not otherwise provided pursuant to section 10.2(E) or 10.3(D)(8) using accepted engineering methods.
- D. All residential subdivision, commercial business park proposals, including the placement of manufactured home parks and subdivisions, shall have adequate drainage provided to reduce exposure to flood hazards.

All residential subdivision, commercial business park proposals, including the placement of manufactured home parks and subdivisions, shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

§10.6 – STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in section 10.2 (E) are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following apply:

- A. All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as one foot above the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
- B. All new construction and substantial improvements of nonresidential structures shall:
 - 1. Have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as one foot above the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified); or
 - 2. Together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure 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.
- C. A registered professional engineer or architect shall submit an Elevation certification to the floodplain administrator that the standards of this section are satisfied.
- D. Within zones AH or AO adequate drainage paths around structures on slopes shall be required to guide floodwaters around and away from proposed structures.

§10.7 – FLOODWAYS

Located within areas of special flood hazard established in section 10.2 (E) are areas designated as floodways. These are characterized by high risk areas of stream channel and adjacent floodplain. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following shall apply:

- A. Encroachments are prohibited, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway, unless it has been demonstrated 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 within the county during the occurrence of the base flood discharge.
A No-Rise Certificate, signed and stamped by a Professional Engineer licensed to practice in the State of Arkansas, is required to be submitted to demonstrate through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed development would not result in any increase in flood levels within the community during the occurrence of a base flood event. No Manufactured Home may be placed in a regulatory floodway, regardless of elevation height, anchoring methods, or No-Rise Certification.
- B. If subsection A above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction sections of this division.
- C. Under the provisions of 44 CFR 65.12 of the National Flood Insurance regulations, the county may permit encroachments within the adopted regulatory floodway that would result in an increase in

base flood elevations, provided that the county first applies for a conditional FIRM and floodway revision through FEMA.

§10.8 – PENALTIES FOR NONCOMPLIANCE

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this article and other applicable regulations. Violations of the provisions of this article by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person, firm, or corporation who violates this article or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$500.00, for each violation, and in addition shall pay all costs and expenses involved in the case. If an act prohibited or rendered unlawful is, in its nature, continuous in respect to time, the fine or penalty for allowing the continuance thereof, in violation of this article, shall not exceed \$250.00 for each day that it may be unlawfully continued. Nothing herein contained shall prevent the county from taking such other lawful action as is necessary to prevent or remedy any violation.

§10.9 – EMERGENCY CLAUSE

It is hereby found and declared by Benton County that severe flooding has occurred in the past within its jurisdiction and will certainly occur within the future; that flooding is likely to result in infliction of serious personal injury or death, and is likely to result in substantial injury or destruction of property within its jurisdiction; in order to effectively comply with minimum standards for coverage under the National Flood Insurance Program; and in order to effectively remedy the situation described herein, it is necessary that this ordinance become effective immediately. Therefore, an emergency is hereby declared to exist, and this ordinance, being necessary for the immediate preservation of the public peace, health and safety, shall be in full force and effect from and after its passage and approval.

§10.10 – RESERVED