

1 **Section 1.** Ordinance No. 18,556 is hereby repealed and the following provisions are hereby
2 enacted:

3 **Sec. 13-51. - Statutory authorization, findings of fact, purpose and methods.**

4 (a) *Statutory Authorization.* The Legislature of the State of Arkansas has in Ark. Code Ann. § 14-
5 268-101 et seq., delegated the responsibility of local governmental units to adopt regulations
6 to minimize flood losses. Therefore, the City of Little Rock, Arkansas, does hereby ordain as
7 follows:

8 (b) *Findings of Fact.*

9 (1) The Federal Emergency Management Agency (FEMA) has identified Special Flood
10 Hazard Areas of the City of Little Rock in the current scientific and engineering report
11 entitled "The Flood Insurance Study (FIS) for Pulaski County, Arkansas and
12 incorporated areas," dated July 6, 2015, with an effective Flood Insurance Rate Map
13 (FIRM) dated July 6, 2015.

14 (2) These Special Flood Hazard Areas are subject to periodic flooding events that result in
15 loss of life and property, pose health and safety hazards, disrupt commerce and
16 governmental services, and cause extraordinary public expenditures for flood
17 protection and relief, all of which adversely affect the public health, safety and general
18 welfare.

19 (3) These periodic flooding events are exacerbated by the cumulative effect of floodplain
20 developments which cause an increase in flood heights and velocities, and by the
21 placement of inadequately elevated, inadequately floodproofed or otherwise
22 unprotected structures or uses vulnerable to floods into Special Flood Hazard Areas.
23 Such structures or uses are inherently hazardous to other lands because of their adverse
24 impact on flooding events.

25 (c) *Statement of Purpose.* The purpose of this ordinance is to promote the public health, safety
26 and general welfare, to prevent adverse impacts from any floodplain development activities,
27 and to minimize public and private losses due to flooding events in identified Special Flood
28 Hazard Areas. This ordinance advances the stated purpose through provisions designed to:

29 (1) Protect natural floodplains against unwise development

30 (2) Eliminate adverse impacts of necessary floodplain development

31 (3) Minimize expenditure of public money for costly flood control projects;

32 (4) Minimize the need for rescue and relief efforts associated with flooding and generally
33 undertaken at the expense of the general public;

34 (5) Minimize prolonged business interruptions due to flood events;

1 (6) Minimize damage to public facilities and utilities such as water and gas mains, electric,
2 telephone and sewer lines, streets and bridges located in Special Flood Hazard Areas
3 floodplains;

4 (7) Minimize future flood blight areas to help maintain a stable tax base; and

5 (8) Provide for notice to potential buyers when property is in a Special Flood Hazard Area.

6 (d) *Lands to which this Ordinance Applies.* The ordinance shall apply to all Special Flood Hazard
7 Areas within the jurisdiction of the City of Little Rock

8 (e) *Methods of Reducing Flood Losses.* This ordinance uses the following methods to accomplish
9 the stated purpose:

10 (1) This ordinance restricts or prohibits structures or uses in Special Flood Hazard Areas
11 that adversely impact health, safety or property during flooding events;

12 (2) This ordinance requires protection against flood damage for structures or uses
13 vulnerable to floods at the time of initial construction, or after substantial improvement
14 of the structure, or after substantial damage has occurred;

15 (3) This ordinance controls the alteration of natural floodplains, stream channels and
16 natural protective barriers which are involved in the accommodation and transport of
17 flood waters;

18 (4) This ordinance controls floodplain development (structural development, placement of
19 manufactured structures, clearing, grading, mining, drilling, dredging, placement of
20 fill, excavating, watercourse alteration, drainage improvements, roadway or bridge
21 construction, individual water or sewer installations and other activities) which may
22 increase flood damage by increasing flood elevations, flood water velocities, or flood
23 discharge patterns;

24 (5) This ordinance regulates the construction of flood barriers which unnaturally divert
25 floodwaters or which may adversely impact other lands.

26 (Ord. No. 18,556, § 1(Art. 1), 9-4-01; Ord. No. 18,603, 12-4-01)

27 **FLOOD DAMAGE PREVENTION CODE ADOPTED BY REFERENCE.**

28 There is hereby adopted by reference a “Flood Damage Prevention Code for the City of Little Rock,
29 Arkansas,” dated July 6, 2015. The code shall include:

30 ARTICLE 1 DEFINITIONS

31 ARTICLE 2 ADMINISTRATION

32 ARTICLE 3 PROVISIONS FOR FLOOD HAZARD REDUCTION

33 A copy of the referenced code shall be filed in the office of the office of Pulaski County Circuit Clerk and
34 shall be available for inspection and copying by any person during normal office hours.

1 (f) *Abrogation and Greater Restrictions.* This ordinance does not repeal, abrogate, or impair any
2 existing easements, covenants, or deed restrictions. Whenever there is a conflict or overlap
3 between this ordinance and another ordinance, easement, covenant, or deed restriction, the
4 instrument with the more stringent restrictions applies.

5 (g) *Interpretation.* In the interpretation and application of this ordinance, all provisions must:

- 6 1. Be considered as minimum requirements;
- 7 2. Be liberally construed in favor of the governing body; and
- 8 3. Be deemed to neither limit nor repeal any other powers granted under State Statutes.

9 (h) *Warning and Disclaimer of Liability.* The degree of flood protection required by this ordinance
10 is considered reasonable for regulatory purposes. Documented scientific and engineering data
11 form the basis for these requirements. On rare occasions, flooding events greater than those
12 considered for this ordinance will occur. In addition, flood heights may increase over time due
13 to man-made or natural causes. This ordinance does not imply that land outside Special Flood
14 Hazard Areas will be free from flooding, nor that strict adherence to this ordinance protects
15 uses permitted within Special Flood Hazard Areas from all flood damages. This ordinance
16 specifically does not create liability on the part of the community, nor any official or employee
17 of the community, for any flood damages that result while strictly following this ordinance, or
18 from any lawful administrative decision made under the provisions of this ordinance.

19 (i) *Compliance.* Constructing, locating, substantially altering or changing the use of any structure
20 or land after the effective date of this ordinance requires full compliance with the provisions of
21 this ordinance and all other applicable regulations.

22 (j) *Penalty for Non-Compliance.* Flood hazards are reduced by compliance with the provisions of
23 this code. Accordingly, enforcement of this ordinance discourages non-compliance and is a
24 recognized mechanism for flood hazard reduction.

25 The Floodplain Administrator must enforce the provisions of this ordinance and is authorized
26 to:

- 27 1. Issue cease and desist orders on non-compliant floodplain development projects;
- 28 2. Issue citations for non-compliance;
- 29 3. Request that FEMA file a 1316 Action (Denial of Flood Insurance) against non-
30 compliant properties; and
- 31 4. Take any other lawful action necessary to prevent or remedy any instance of non-
32 compliance with the provisions of this ordinance.
 - 33 a. It is a misdemeanor to violate or fail to comply with any provision of this
34 ordinance.

1 b. Any person found, in a court of competent jurisdiction, guilty of violating this
2 ordinance is subject to fines of not more than \$500 per day for each violation;
3 in addition the defendant is subject to payment of all associated court costs and
4 costs involved in the case.

5 (k) *Emergency Clause.* It is hereby found and declared by the City of Little Rock that severe
6 flooding has occurred in the past within its jurisdiction and will certainly occur within the
7 future; that flooding is likely to result in infliction of serious personal injury or death, and is
8 likely to result in substantial injury or destruction of property within its jurisdiction; in order to
9 effectively comply with minimum standards for coverage under the National Flood Insurance
10 Program; and in order to effectively remedy the situation described herein, it is necessary that
11 this ordinance become effective immediately.

12 **Sec. 13-52. – Article 1 Definitions.**

13 Unless specifically defined below, words or phrases used in this Code have their common usage
14 meaning to give the most reasonable application to this Code.

15 Additional definitions for floodplain management terms can be found at Part §59.1 of 44 CFR.

16 “*Alluvial Fan Flooding*” means flooding occurring on the surface of an alluvial fan or similar
17 landform which originates at the apex and is characterized by high-velocity flows; active processes
18 of erosion, sediment transport, and deposition; and unpredictable flow path.

19 “*Apex*” means a point on an alluvial fan or similar landform below which the flow path of the
20 major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

21 “*Area of Shallow Flooding*” means a designated AO, AH, or VO Zone on a community's Flood
22 Insurance Rate Map (FIRM) with a 1% chance or greater annual chance of flooding to an average
23 depth of one (1) to three (3) feet where a clearly defined channel does not exist, where the path of
24 flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized
25 by ponding or sheet flow.

26 “*Area of Special Flood Hazard*” is the land in the floodplain within a community subject to a 1%
27 or greater chance of flooding in any given year. The area may be designated as Zone [A] on the
28 Flood Hazard Boundary Map (FHBM). After detailed ratemaking has been completed in
29 preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1,
30 99, VO, V1-30, VE or V.

31 “*44 CFR*” (*Emergency Management and Assistance – National Flood Insurance Program*
32 *Regulations*) - parts 59-75 contain Federal Regulations upon which local floodplain managements
33 are based.

1 “44 CFR § 65.12” - contains the section of the Federal regulations which involves revision of flood
2 insurance rate maps to reflect base flood elevations caused by proposed encroachments.

3 “100-Year Flood” - is any flood with a 1% chance of occurring in any given year. The term is
4 misleading, because of its statistical derivation. A “100-year flood” may occur many times in any
5 given 100-year period, or it may not occur at all in 100 years.

6 “500-Year Flood” is any flood with a 0.2% chance of occurring in any given year. As with the
7 100-year flood, this term is also misleading, because of its statistical derivation. A “500-year flood”
8 may occur many times in any given 500-year period, or it may not occur at all in 500 years.

9 “Accessory Structures” are structures which are on the same parcel of property as the principle
10 structure and the use of which is incidental to the use of the principle structure (such as garages and
11 storage sheds).

12 “Adverse Impact” means negative or harmful effect in relation to flooding. The adverse impacts
13 can be measured in terms of increased flood peaks, increased flood stages, and/or higher flood
14 velocities in the floodway model as determined by FEMA in the City of Little Rock’s Flood
15 Insurance Study dated (Effective date of the new FIS):

16 “AE or A1-30 Risk Zones” are special flood hazard areas where detailed studies have determined
17 base flood elevations. AE has replaced A1-30 in newer flood maps.

18 “AH Risk Zones” are special flood hazard areas characterized by shallow flooding with ponding
19 effects (where floodwaters accumulate in depressions and linger until absorbed or evaporated).

20 “AO Risk Zones” are special flood hazard areas characterized by shallow flooding with sheet flow
21 (where floodwaters flow in a broad, shallow sheet rather than through a narrow channel).

22 “A Risk Zones” are special flood hazard areas without detailed studies, where base flood elevations
23 have not been determined.

24 “Appeal Board” means a person or persons specifically designated to render decisions on variance
25 applications and floodplain management complaints.

26 “Automatic” entry and exit of floodwaters means that the water must be able to enter and exit with
27 no intervening action from a person.

28 “Base Flood” is the flood profile used as the basis for the NFIP Regulations. The Federal
29 Government has selected the 1% chance flood as the base flood.

30 “Basement” is any enclosed area that is below grade on all sides.

31 “BFE” is the acronym for Base Flood Elevation.

32 “Buoyancy” is the upward force exerted by water. Buoyancy can cause underground tanks to float
33 free and can lift structures off foundations.

1 “*Critical Feature*” means an integral and readily identifiable part of a flood protection system,
2 without which the flood protection provided by the entire system would be compromised.

3 “*Certificates of Compliance*” are formal documents issued by floodplain administrators certifying
4 that completed projects comply with the requirements of the local Code.

5 *Code of Federal Regulations (CFR)* is the codification of the general and permanent rules published
6 in the Federal Register by the Executive Departments and agencies of the Federal Government. It
7 is divided into fifty (50) titles that represent broad areas subject to Federal Regulation. The Federal
8 Regulations pertaining to the national Flood Insurance Program are found in Title 44, Emergency
9 Management and Assistance.

10 “*Clearing*” is the act of cutting timber or shrubs from an area

11 “*Commercial Business Park*” is typically an area of offices or light industrial usage, although retail,
12 service, or industrial usage is sometimes included in supporting roles. For example, a commercial
13 business park of office complexes may also include restaurants which service these offices.

14 “*Concrete Deadman Anchors*” are heavy steel rods embedded in buried sections of concrete, used
15 to secure items in place under tension.

16 “*Covenant*” is a clause in a contract that requires one party to do, or refrain from doing, certain
17 things. A covenant frequently appears as a restriction that a lender imposes on a borrower.

18 “*Crawlspace*” is a type of structural foundation where the space beneath the lowest floor is
19 typically not deep enough to allow a person to stand and not all four (4) walls are below grade.

20 “*Critical Facilities*” include: Governmental facilities that are considered essential for the delivery
21 of critical services and crisis management (such as data and communication centers and key
22 governmental complexes); facilities that are essential for the health and welfare of the whole
23 population (such as hospitals, prisons, police and fire stations, emergency operations centers,
24 evacuation shelters and schools); mass transportation facilities (such as airports, bus terminals, train
25 terminals); lifeline utility systems (including potable water, wastewater, oil, natural gas, electric
26 power and communications systems); high potential loss facilities (such as nuclear power plants or
27 military installations); hazardous material facilities (such as industrial facilities housing or
28 manufacturing or disposing of corrosives, explosives, flammable materials, radioactive materials
29 and toxins.

30 “*D Zones*” areas in which the flood hazard has not been determined, but may be possible

31 “*Deed Restriction*” refers to a clause in a deed that limits the future uses of the property in some
32 respect. Deed restrictions may impose a vast variety of limitations and conditions, for example,
33 they may limit the density of buildings, dictate the types of structures that can be erected, prevent
34 buildings from being used for specific purposes or even from being used at all.

1 *“Development”* means any man-made change to improved or unimproved real estate. It includes,
2 but not limited to, construction, reconstruction, or placement of a building, or any addition or
3 substantial improvements to a building. “Development” also includes the installation of a
4 manufactured home on a site, preparing a site for a manufactured home, or installing/parking a
5 travel trailer. The installation of utilities, construction of roads, bridges, culverts or similar projects
6 are also “developments.” Construction or erection of levees, dams, walls, or fences; drilling,
7 mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface are
8 “developments.” Storage of materials including the placement of gas and liquid storage tanks are
9 “developments,” as are channel modifications or any other activity that might change the direction,
10 height, or velocity of flood or surface waters. “Development” will normally not include
11 maintenance of existing drainage ditches, gardening, plowing, planting, harvesting of crops, or
12 similar practices that do not involve filling, grading, or construction of levees.

13 *“Development Permit”* refers to the permit required for placing a “development” in the floodplain.
14 *“Easements”* are rights or permissions held by one person to make specific, limited use of land
15 owned by another person.

16 *“Elevated Building”* means a non-basement building (i) built, in the case of a building in Zones
17 A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case
18 of a building in Zones V1-30, VE, or V, to have the bottom of the lowest horizontal structure
19 member of the elevated floor elevated above the ground level by means of pilings, columns (posts
20 and piers), or shear walls parallel to the floor of the water and (ii) adequately anchored so as not to
21 impair the structural integrity of the building during a flood of up to the magnitude of the base
22 flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also
23 includes a building elevated by means of fill or solid foundation perimeter walls with openings
24 sufficient to facilitate the unimpeded movement of floodwaters. In the case of zones A1-30, VE, or
25 V, "elevated building" also includes a building otherwise meeting the definition of "elevated
26 building," even though the lower area is enclosed by means of breakaway walls if the breakaway
27 walls met the standards of Section 60.3(e)(5) of the National Flood Insurance Program regulations.

28 *“Elevation Certificate”* refers to FEMA form 81-31, which for the purposes of this Code must be
29 properly completed by a Professional Engineer, Surveyor or Architect licensed to practice in the
30 State of Arkansas.

31 *“Erosion”* is the process of soil removal by moving water.

32 *“Existing Construction”* means for the purposes of determining rates, structures for which the "start
33 of construction" commenced before the effective date of the FIRM or before January 1, 1975, for

1 FIRMs effective before that date. "Existing construction" may also be referred to as "existing
2 structures."

3 "*Existing Structure*" means, for floodplain management purposes, a structure which is in place
4 before any reconstruction, rehabilitation, addition, or other improvement takes place.

5 "*Existing Manufactured Home Park or Subdivision*" means a manufactured home park or
6 subdivision for which the construction of facilities for servicing the lots on which the manufactured
7 homes are to be affixed (including, at a minimum, the installation of utilities, the construction of
8 streets, and either final site grading or the pour of concrete pads) is completed before the effective
9 date of the floodplain management regulations adopted by a community.

10 "*Expansion to an Existing Manufactured Home Park or Subdivision*" means the preparation of
11 additional sites by the construction of facilities for servicing the lots on which the manufactured
12 homes are to be affixed (including the installation of utilities, the construction of streets, and either
13 final site grading or the pouring of concrete pads).

14 "*Federal Emergency Management Agency*", or FEMA, is the Federal agency responsible for
15 administering the National Flood Insurance Program.

16 "*FEMA*" is the acronym for the Federal Emergency Management Agency.

17 "*Fill*" refers to the placement of natural sand, dirt, soil, rock, concrete, cement, brick or similar
18 material at a specified location to bring the ground surface up to a desired elevation.

19 "*FIRM*" is the acronym for Flood Insurance Rate Map.

20 "*Flood Fringe*" refers to the portion of the 100-year floodplain which is outside the floodway (See
21 definition of floodway below.)

22 "*Flood Insurance Rate Map*" (or "*FIRM*") refers to the official flood map of a community on
23 which FEMA has categorized Special Flood Hazard Areas into risk premium zones.

24 "*Flood Insurance Study*" (or "*FIS*") is the official report provided by FEMA. It contains flood
25 profiles, floodway tables, engineering methods, and other descriptive and technical data.

26 "*Flooding Events*" are general or temporary conditions of partial or complete inundation of
27 normally dry land areas from the overflow of inland or tidal waters, or from the unusual and rapid
28 accumulation or runoff of surface waters from any source.

29 "*Floodplain*" refers to any land area susceptible to inundation by floodwaters from any source.
30 For the purposes of this Code, floodplain refers to the land area susceptible to being inundated by
31 the base flood.

32 "*Floodplain Administrator*" refers to the community official designated in the local Flood Damage
33 Prevention Code as responsible for the Code's administration.

1 “*Floodplain Development Permit*” is a permit issued by the local Floodplain Administrator and is
2 required before beginning any development in an area designated as a Special Flood Hazard Area
3 on the community’s FIRM.

4 “*Floodplain Management*” means the operation of an overall program of corrective and
5 preventative measures for reducing flood damage including but not limited to emergency
6 preparedness plans, flood control works and floodplain management regulations.

7 “*Floodplain Management Regulations*” means zoning ordinances, subdivision regulations,
8 building codes, health regulations, special purpose ordinances (such as a floodplain ordinance,
9 grading ordinances and erosion control ordinance) and other applications of police power. The term
10 describes such state or local regulations, in any combination thereof which provide standards for
11 the purpose of flood damage prevention and reduction.

12 “*Flood Protection System*” means those physical structural works for which funds have been
13 authorized, appropriated, and expended and which have been constructed specifically to modify
14 flooding in order to reduce the extent of the areas within a community subject to a "special flood
15 hazard" and the extent of the depths of associated flooding. Such a system typically includes
16 hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works
17 are those constructed in conformance with sound engineering standards.

18 “*Floodproofing*” is a combination of structural and nonstructural additions, changes, or
19 adjustments to structures that reduce or eliminate the risk of flood damage.

20 “*Floodproofing Certificate*” refers to FEMA form 81-65, which for the purposes of this Code must
21 be properly completed by a Professional Engineer or Architect licensed to practice in the State of
22 Arkansas.

23 “*Floodway*” or “*Regulatory Floodway*” refers to a stream channel and the land to either side of
24 the stream channel that must remain undeveloped and open in order to allow floodwaters to pass
25 without increasing the base flood elevation more than a designated height. For the purposes of this
26 Code, the height is one foot (1 ft.). Severe restrictions or prohibitions are imposed on development
27 within the floodway.

28 “*Flow-Through Openings*” are openings specifically designed to allow floodwaters to flow into
29 and out of enclosed spaces, minimizing the danger of foundation or wall collapse from lateral
30 hydrostatic pressure.

31 “*Functionally dependent use*” means a use which cannot perform its intended purpose unless it is
32 located or carried out in close proximity to water. The term includes only docking facilities, port
33 facilities that are necessary for the loading and unloading of cargo or passengers, and ship building
34 and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

1 “Grade” means the surface of the ground.

2 “Grading” means to smooth the surface of the ground, typically with heavy construction
3 equipment.

4 “Highest Adjacent Grade” (*HAG*) means the highest natural elevation of the ground surface prior
5 to construction next to the proposed walls of a structure.

6 “Historic Structure” means any structure that is:

7 (1) Listed individually in the National Register of Historic Places (a listing maintained by the
8 Department of Interior) or preliminarily determined by the Secretary of the Interior as
9 meeting the requirements for individual listing on the National Register;

10 (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the
11 historical significance of a registered historic district or a district preliminarily determined
12 by the Secretary to qualify as a registered historic district;

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

15 (4) Individually listed on a local inventory or historic places in communities with historic
16 preservation programs that have been certified either;

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

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

19 “Hydrodynamic Forces” are the forces and stresses associated with moving water, including
20 impacts from objects carried in the water.

21 “Hydrostatic Flood Forces” are the forces and stresses associated with standing floodwaters.

22 “Lacustrine Flooding” is flooding associated with a lake.

23 “Lateral Forces” are the horizontal hydrostatic forces associated with standing water. Water exerts
24 an equal force in all directions, and as little as three feet of standing water can generate sufficient
25 lateral force to collapse a foundation or wall.

26 “Levee” means a man-made structure, usually an earthen embankment, designed and constructed
27 in accordance with sound engineering practices to contain, control, or divert the flow of water so
28 as to provide protection from temporary flooding.

29 “Levee System” means a flood protection system which consists of a levee, or levees, and
30 associated structures, such as closure and drainage devices, which are constructed and operated in
31 accordance with sound engineering practices.

32 “Lowest floor” refers to the lowest floor of the lowest enclosed area (including Basement). For a
33 typical slab-on-grade construction, the lowest floor is the top of the first floor of the structure. For
34 a typical basement foundation construction, the elevation of the lowest floor is the top of the

1 basement floor. For a typical crawlspace foundation construction, the elevation of the lowest floor
2 is the top of the first floor of the structure. For a typical split-level construction, the elevation of
3 the lowest floor is the top of the first living area floor. For a manufactured home installation, the
4 elevation of the lowest floor will be the bottom of the lowest I-Beam. The garage floor and
5 crawlspaces are not the lowest floor as long as there are no living areas in the garage and it is used
6 solely for storage, parking vehicle and entry to the structure, provided that such enclosure is not
7 built so as to render the structure in violation of the applicable non-elevation design requirements
8 of Section 60.3 of the National Flood Insurance Regulations.

9 “*Manufactured Home*” means a structure transportable in one (1) or more sections, which is built
10 on a permanent chassis and is designed for use with or without a permanent foundation when
11 connected to the required utilities. The term "manufactured home" does not include a "recreational
12 vehicle".

13 “*Manufactured Home Park or Subdivision*” means a parcel (or contiguous parcels) of land divided
14 into two (2) or more manufactured home lots for rent or sale.

15 “*Mean sea level*” means, for purposes of the National Flood Insurance Program, the National
16 Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown
17 on a community's flood insurance rate map are referenced.

18 “*Mixed-Use Structures*” are structures with both a business and a residential component, but where
19 the area used for business is less than 50% of the total floor area of the structure.

20 “*New Construction*” means, for floodplain management purposes, structures for which the “start
21 of construction” commenced on or after the date of a floodplain management regulation adopted
22 by a community and includes any subsequent improvements to such structures.

23 “*New Manufactured Home Park or Subdivision*” means a manufactured home park or subdivision
24 for which the construction of facilities for servicing the lots on which the manufactured homes are
25 to be affixed (including as a minimum, the installation of utilities, the construction of streets and
26 either final site grading or the pouring of concrete pads) is completed on or after the effective date
27 of floodplain management regulations adopted by a community.

28 “*No Adverse Impact Principle*” is a principle of restricting land development that “adversely
29 affects” someone else’s property or land.

30 “*Nonresidential Structures*” are structures used only for commercial or public purposes, such as
31 businesses, schools, churches, etc.

32 “*No-Rise Certificates*” are formal certifications signed and stamped by a Professional Engineer
33 licensed to practice in the State of Arkansas, demonstrating through hydrologic and hydraulic
34 analyses performed in accordance with standard engineering practice that a proposed development

1 will not result in any increase in flood levels within the community during the occurrence of a base
2 flood event.

3 “*Piers*” are columns of masonry or other structural material (commonly cement blocks stacked up
4 to support a manufactured home), usually rectangular, used to support other structural members.
5 For the purpose of this ordinance, piers must be permanent in nature.

6 “*Pilings*” are steel tubes driven to rock or a suitable soil bearing layer and connected to the
7 foundation of a structure.

8 “*Ponding*” is a flooding effect where floodwaters accumulate in shallow depressions and linger
9 until absorbed or evaporated.

10 “*Recreational Vehicle*” means a vehicle which is (i) built on a single chassis; (ii) 400 square-feet
11 or less when measured at the largest horizontal projections; (iii) designed to be self-propelled or
12 permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent
13 dwelling but as temporary living quarters for recreations, camping, travel, or seasonal use.

14 “*Risk Zones*” categorize special flood hazard areas into groupings by the specific risk of flooding.
15 Zones A, AE or A1-30, AO, and AH are Special Flood Hazard Areas. See “X Risk Zones” in this
16 section.

17 “*Riverine Flooding*” is flooding associated with a river or stream channel.

18 “*RV*” is the acronym for recreational vehicle.

19 “*Screw Augers*” are any type of anchor that twists into the soil, typically to a depth of four (4) feet
20 or more. They are not suitable for securing manufactured homes against floodwaters because
21 saturated grounds often soften and fail to hold the anchor in place.

22 “*Section 404 Wetlands Permit*” is a permit required under Section 404 of the Clean Water Act for
23 the discharge of dredged and fill material into any surface water of the United States. The United
24 States Army Corps of Engineers issues Section 404 Permits.

25 “*SFHA*” is the acronym for Special Flood Hazard Area.

26 “*Shallow Flooding*” means a depth of less than three (3) feet.

27 “*Slab Anchors*” are anchors where the hook of the anchor is wrapped around a horizontal rebar in
28 the slab before the concrete is poured.

29 “*Special Flood Hazard Areas*” are geographical areas identified on FEMA flood maps as being at-
30 risk for flooding. The maps further categorize these areas into various flood risk zones A, AE or
31 A1-30, AH, and AO.

32 “*Start of Construction*” includes substantial improvement and means the date the building permit
33 was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition
34 placement, or other improvement was within 180 days of the permit date. The actual start means

1 either the first placement of permanent construction of a structure on a site, such as the pouring of
2 slab or footings, the installation of piles, the construction of columns, or any work beyond the stage
3 of excavation; or the placement of a manufactured home on a foundation. Permanent construction
4 does not include land preparation, such as clearing, grading and filling; nor does it include the
5 installation of streets and/or walkways; nor does it include excavation for basement, footings, piers
6 or foundations or the erection of temporary forms; nor does it include the installation on the
7 property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part
8 of the main structure. For a substantial improvement, the actual start of construction means the
9 first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that
10 alteration affects the external dimensions of the building.

11 “*State Coordinating Agency*” is the agency that acts as a liaison between FEMA and a community
12 for the purposes of floodplain management. The Arkansas Natural Resources Commission is the
13 State Coordinating Agency for Arkansas.

14 “*Stream Channels*” are depressed natural pathways through which water of any quantity routinely
15 flows.

16 “*Structural Development*” is a development that includes the placement or construction of a
17 structure.

18 “*Structure*” means for floodplain management purposes a walled and roofed building, including a
19 gas or liquid storage tank, which is principally above ground, as well as a manufactured home.

20 “*Substantial Damage*” is damage of any origin where the cost to restore a structure to its original
21 undamaged state would equal or exceed 50% of the market value of the structure before any damage
22 occurred. In determining whether substantial damage has occurred, estimators must use standard
23 contractor and materials costs. There are no exceptions for homeowners who make their own
24 repairs or for discounted or free raw materials.

25 “*Substantial Improvement*” is any reconstruction, remodeling, addition or improvement to a
26 structure with a cost equaling or exceeding 50% of the market value of the structure before any
27 improvement. Improvements to correct identified violations of local health, sanitary or safety
28 Codes are not substantial improvements, regardless of the cost, as long as they are the minimum
29 improvement necessary to bring the structure up to Code. Alterations to historical structures are
30 also exempted, as long as the improvement does not affect the structure’s official status of
31 “historical structure.”

32 “*Uses Vulnerable to Floods*” are simply any land or structural uses that may be negatively affected
33 by a flood.

1 “Variance” is a formal, written permission from the Appeals Board to construct or develop in a
2 way that is inconsistent with the requirements of this Code. The variance only deals with this Code
3 – the Appeals Board has no authority to waive any other governmental requirement, and has no say
4 in the cost of flood insurance.

5 “Violation” means the failure of a structure or other development to be fully compliant with the
6 community's floodplain management regulations. A structure or other development without the
7 elevation certificate, other certifications, or other evidence of compliance required in this code
8 Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) [of the National Flood Insurance
9 Program regulations] is presumed to be in violation until such time as that documentation is
10 provided.

11 “Water Surface Elevation” means the height, in relation to the National Geodetic Vertical Datum
12 (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and
13 frequencies in the floodplains of coastal or riverine areas.

14 “X Risk Zones” are a special group of insurance risk zones. One type, shown as non-shaded areas
15 on FEMA issued flood maps, indicates a zone where flooding is not expected to occur. The second
16 type, shown as shaded areas of FEMA flood maps, indicates a flood hazard area that is expected to
17 be affected by the 500-year flood, but not by the 100-year base flood.

18 (Ord. No. 18,556, § 1(Art. 2), 9-4-01) (Ord. No. 18,556, § 1(Art. 3), 9-4-01)

19 **Article 2. - ADMINISTRATION**

20 **Sec. 13-53. - Designation of the Floodplain Administrator.**

21 The Mayor of the City of Little Rock, or his designee, is hereby appointed the Floodplain
22 Administrator.

23 (Ord. No. 18,556, § 1(Art. 4, § A), 9-4-01)

24 **Sec. 13-54. - Duties and Responsibilities of the Floodplain Administrator.**

25 (a) Obtain accreditation each year as required by A.C.A. §14-268-106 through the State
26 Coordinating Agency, which is the Arkansas Natural Resources Commission.

27 (b) Administer and implement the provisions of this Code and other appropriate sections of 44
28 CFR (Emergency Management and Assistance - National Flood Insurance Program
29 Regulations) as they pertain to floodplain management

30 (c) Review applications for Floodplain Development Permits to:

- 31 1) Evaluate proposed projects for reasonable safety from flooding;
- 32 2) Evaluate proposed projects for conformance with No Adverse Impact principles;
- 33 3) Ensure that all other permits necessary (including Section 404 Wetlands Permits as
34 required by the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C.

- 1 1334) for proposed projects are obtained from the appropriate government agency prior
2 to issuing a Floodplain Development Permit; and
- 3 4) Ensure that proposed projects conform to the applicable provisions of this Code.
- 4 (d) Approve or deny applications for Floodplain Development Permits on the basis of:
- 5 1) The proposed development's compliance or non-compliance with the provisions of this
6 Code;
- 7 2) The expected flood elevation, flood water velocity, flood duration, rate of rise and
8 sediment transport of the floodwaters expected at the proposed development site;
- 9 3) The proposed development's potential to adversely impact life and property by
10 changing flooding patterns, changing erosion rates, or being swept onto other lands by
11 flood waters;
- 12 4) The proposed development's susceptibility to flood damage;
- 13 5) The proposed development's compatibility with existing and planned community
14 development;
- 15 6) The proposed development's accessibility by ordinary and emergency vehicles during
16 flooding events;
- 17 7) The anticipated costs of providing governmental services to the proposed development
18 during and after flooding events, including maintenance and repair of streets, bridges,
19 facilities and public utilities such as sewer, gas, electrical and water systems;
- 20 8) The proposed development's functionally dependent use;
- 21 9) The availability of alternative locations, not subject to flooding or erosion damage, for
22 the proposed development; and
- 23 10) The relationship of the proposed use to the comprehensive plan for that area.
- 24 (e) Interpret the exact location of the boundaries of Special Flood Hazard Areas whenever a
25 mapped boundary appears to be different from actual field conditions. (The sole purpose of
26 this interpretation is to determinate the applicability of the provisions of this Code to the
27 proposed project.)
- 28 (f) Notify adjacent communities and the State Coordinating Agency, which is the Arkansas Natural
29 Resources Commission, a minimum of sixty (60) days prior to any alteration or relocation of a
30 watercourse, and submit evidence of all such notifications to FEMA.
- 31 (g) Ensure that the flood carrying capacity within an altered or relocated portion of a
32 watercourse is not diminished, and that the alteration or relocation does not adversely impact
33 other lands.

1 (h) Obtain, review and reasonably utilize, whenever the current Flood Insurance Study or current
2 Flood Insurance Rate Map does not provide base flood elevation data, any base flood elevation
3 data and floodway data available from any Federal, State or other source. The Floodplain
4 Administrator may obtain such data by requiring the applicant to submit it in conjunction with
5 a Floodplain Development Permit application. (The sole use of this data is the administration
6 of the provisions of this Code.)

7 (i) Inspect floodplain developments as necessary to ensure construction is in accordance with the
8 application data that formed the basis for the decision to issue the Floodplain Development
9 Permit.

10 (j) Issue Certificates of Compliance.

11 (k) Maintain all records and documents pertaining to this Code for public inspection.

12 (Ord. No. 18,556, § 1(Art. 4, § B), 9-4-01)

13 **Sec. 13-55. – Establishment of Development Permit**

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

19 **Sec. 13-56. – Permit Procedures**

20 (a) Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator
21 on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to
22 scale showing the location, dimensions, and elevation of proposed landscape alterations, existing
23 and proposed structures, including the placement of manufactured homes, and the location of the
24 foregoing in relation to areas of special flood hazard.

25 (b) The documentation required with each Application for a Floodplain Development Permit, and the
26 specific provisions of this Code applicable to the proposed development, are dependent upon the
27 type of development proposed and the Risk Zone of the proposed development site. Article 3,
28 Section 13-59 contains standards for all developments in all Risk Zones. Article 3, Section 13-60
29 contains standards for specific development types in specific Risk Zones.

30 (c) The decision of the Floodplain Administrator to approve or deny issuance of a Floodplain
31 Development Permit is subject to appeal to the designated Appeal Board. Within the City of Little
32 Rock, Arkansas the designated Appeal Board is the Board of Directors.

33 **Sec. 13-57. - Variance procedures.**

34 (a) Applicants must submit petitions for variances directly to the Appeal Board (Section 13-58).

- 1 (b) Variances may only be issued:
- 2 1) If showing a good and sufficient cause;
- 3 2) Granting of the variance will not result in adverse impact upon other lands;
- 4 3) If granting of the variance will not result in any additional threats to public safety;
- 5 4) If granting of the variance will not result in extraordinary public expense;
- 6 5) If granting of the variance does not create a nuisance, cause fraud on or
- 7 victimization of the public, or conflict with existing laws or ordinances;
- 8 6) If granting of the variance will not result in increased flood heights or an increase in
- 9 expected flood velocities;
- 10 7) If the requested variance is the minimum necessary, considering the flood hazards, to
- 11 afford the necessary relief; and
- 12 8) Upon determination that the requested variance is necessary to avoid an extraordinary
- 13 hardship to the applicant.
- 14 (c) Variances may not be issued for developments inside a regulatory floodway unless
- 15 1) All requirements of 44 CFR §65.12 are first met; or
- 16 2) The following requirements are met:
- 17 a. A No-Rise Certificate signed and sealed by a Professional Engineer licensed to
- 18 practice in the State of Arkansas is submitted to document that no increase in
- 19 the base flood elevation would result from granting a variance for the proposed
- 20 development;
- 21 b. Protective measures are employed to minimize damages during flooding events;
- 22 and
- 23 c. The variance does not result in adverse impact to other lands.
- 24 (d) Examples of developments for which variance petitions may be appropriate include but are not
- 25 limited to
- 26 1) The new construction of, or substantial improvement to, a structure on a lot of ½-acre
- 27 or less in size that is surrounded by contiguous lots with existing structures constructed
- 28 below the base flood elevation;
- 29 2) For the reconstruction, rehabilitation or restoration of an historical structure, provided
- 30 that:
- 31 1. The proposed repair or rehabilitation will not preclude the structure's
- 32 continued designation as a historic structure; and
- 33 2. The variance is the minimum necessary to preserve the historic character and
- 34 design of the structure.

- 1 b) The new construction of, substantial improvement to, or other development necessary
2 to conduct a functionally dependent use, provided that:
- 3 1. The criteria outlined in Article 2, Section 13-57, (c) and (d) and Article 2,
4 Section 13-58 are met, and
 - 5 2. The structure or other development is protected by methods that minimize
6 flood damages during the base flood and create no additional threats to public
7 safety.

8 **Sec. 13-58 – Appeal Board**

- 9 (a) Within the City of Little Rock, Arkansas the Board of Directors is the designated Appeal Board.
- 10 (b) The Appeal Board will consider an appeal only with allegations of an error in any requirement,
11 decision, or determination made by the Floodplain Administrator in the enforcement or
12 administration of this Code.
- 13 (c) Upon consideration of the factors noted in Article 2, Sections 13-57 and 13-58, and the intent
14 of this ordinance, the Appeal Board may attach such conditions to the granting of variances as
15 it deems necessary to further the purpose and objectives of this ordinance.
- 16 (d) Appeal Board decisions are binding only upon the requirements of this Code, and have no
17 bearing on the decision of any lending institution to require the purchase of flood insurance or
18 on the rate determination of such insurance.
- 19 (e) Any time the Appeal Board issues a variance, it must provide the applicant with a formal written
20 warning of an increased risk of flood damage due to removal of restrictions designed to lessen
21 such risks. The notice must also warn of a corresponding increase in the cost of flood insurance,
22 since the cost of such insurance will be commensurate with the increased risk.
- 23 (f) Aggrieved parties may appeal any decision of the Appeal Board to a court of competent
24 jurisdiction.

25 **ARTICLE 3. - PROVISIONS FOR FLOOD HAZARD REDUCTION**

26 **Sec. 13-59. - General standards.**

27 The following standards apply to all developments in Special Flood Hazard Areas, regardless of
28 the type of proposed development or the Risk Zone of the proposed site.

- 29 (a) All new construction or substantial improvements shall be designed (or modified) and
30 adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting
31 from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- 32 (b) All new construction or substantial improvements shall be constructed by methods and
33 practices that minimize flood damage;

- 1 (c) All new construction or substantial improvements shall be constructed with materials resistant
2 to flood damage;
- 3 (d) All critical facilities constructed or substantially improved in Special Flood Hazard Areas
4 (SFHA) must be constructed or modified to exceed 500-Year Flood Protection Standards or
5 located outside the SFHA.
- 6 (e) The placement or construction of all new structures must be in full compliance with the
7 provisions of this Code
- 8 (f) For the purposes of this Code, all mixed-use structures are subject to the more stringent
9 requirements of residential structures.
- 10 (g) A substantial improvement or substantial damage to an existing structure triggers a requirement
11 to bring the entire structure into full compliance with the provisions of this Code. The existing
12 structure, as well as any reconstruction, rehabilitation, addition, or other improvement, must
13 meet the standards of new construction in this Code.
- 14 (h) Any improvement to an existing structure that is less than a substantial improvement requires
15 the improvement, but not the existing structure, to be in full compliance with the provisions of
16 this Code.
- 17 (i) All manufactured homes to be placed within a Special Flood Hazard Area on a community's
18 FIRM shall be installed using methods and practices which minimize flood damage. For the
19 purposes of this requirement, manufactured homes must be elevated and anchored to resist
20 flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited
21 to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to
22 applicable State and local anchoring requirements for resisting wind forces. Screw augers or
23 expanding anchors will not satisfy the requirement of this provision.
- 24 (j) The design or location of electrical, heating, ventilation, plumbing, and air conditioning
25 equipment for new structures, or for any improvements to an existing structure, must prevent
26 water from entering or accumulating within the components during base flood events.
- 27 (k) The design of all new and replacement water supply systems shall be designed to minimize or
28 eliminate infiltration of floodwaters into the system;
- 29 (l) The design of New and replacement sanitary sewage systems shall be designed to minimize or
30 eliminate infiltration of flood waters into the system and discharge from the systems into flood
31 waters; and
- 32 (m) The placement of on-site waste disposal systems shall be located to avoid impairment to them
33 or contamination from them during flooding.
- 34 (n) Construction of basement foundations in any Special Flood Hazard Area is prohibited.

1 (o) New construction and substantial improvements, with fully enclosed areas (such as garages
2 and crawlspaces) below the lowest floor that are usable solely for parking of vehicles, building
3 access or storage in an area other than a basement and which are below the base flood elevation
4 shall be designed to automatically equalize hydrostatic flood forces on exterior walls by
5 allowing for the entry and exit of floodwaters. Designs for meeting this requirement must
6 either be certified by a registered professional engineer or architect or meet or exceed the
7 following minimum criteria:

8 (1) A minimum of two (2) openings on separate walls having a total net area of not less
9 than one (1) square-inch for every square-foot of enclosed area subject to flooding shall
10 be provided.

11 (2) The bottom of all openings shall be no higher than one (1)-foot above grade.

12 (3) Openings may be equipped with screens, louvers, valves, or other coverings or devices
13 provided that they permit the automatic entry and exit of floodwaters.

14 (p) The placement of recreational vehicles (RV) in Special Flood Hazard Areas must either

15 (1) Be temporary, as demonstrated by the RV being fully licensed, being on wheels or a
16 jacking system, attached to the site only by quick disconnect type utilities and security
17 devices, having no permanently attached additions, and being immobile for no more
18 than 180 consecutive days; or else

19 (2) Meet all provisions of this Code applicable to manufactured home structures.

20 (q) All proposals for the development of a residential subdivision, commercial business park or
21 manufactured home park/subdivision must have public utilities and facilities such as sewer,
22 gas, electrical and water systems located and constructed to minimize or eliminate flood
23 damage.

24 (r) All proposals for the development of a residential subdivision, commercial business park or a
25 manufactured home park/subdivision must include an adequate drainage plan to reduce
26 exposure to flood hazards.

27 (s) All proposals for the development of a commercial business park or a manufactured home
28 park/subdivision must include an adequate evacuation plan for the escape of citizens from
29 affected nonresidential structures during flooding events.

30 (Ord. No. 18,556, § 1(Art. 5, § A), 9-4-01)

31 **Sec. 13-60. – Risk Zone Specific Standards.**

32 In addition to the General Standards, the following standards apply to specific development types in
33 specific Risk Zones. Risk Zones listed in the Code that do not appear on the current FIRM are not
34 applicable.

1 (1) In AE or A1-30 Risk Zones: Special Flood Hazard Areas with base floods determined

2 a) For Residential Structures in Zone AE or A1-30:

- 3 1. For all new residential structures, the top surface of the lowest floor must have an
4 elevation at least 1 foot or more above the published BFE. This elevation must be
5 documented on an Elevation Certificate properly completed by a Professional
6 Engineer, Surveyor or Architect licensed to practice in the State of Arkansas.
7 2. For all substantial improvements or substantial damage to existing residential
8 structures, the entire structure becomes subject to the requirements of a new residential
9 structure.
10 3. For any reconstruction, rehabilitation, addition, or other improvement to an existing
11 residential structure that is less than a substantial improvement, only the improved area,
12 but not the entire structure, becomes subject to the requirements of a new residential
13 structure.

14 b) For Nonresidential Structures in Zone AE or A1-30:

- 15 1. All new commercial, industrial or other nonresidential structures must either:
16 a. Have the lowest floor (including basement) elevated at least one (1)-foot
17 or more above the base flood level or
18 b. Be floodproofed such that, together with attendant utility and sanitary
19 facilities, be designed so that below an elevation of at least 1 foot or more
20 above the base flood level the structure is watertight with walls
21 substantially impermeable to the passage of water and with structural
22 components having the capability of resisting hydrostatic and
23 hydrodynamic loads and effects of buoyancy.
24 c. A registered professional engineer or architect shall develop and/or review
25 structural design, specifications, and plans for the construction, and shall
26 certify on a Floodproofing Certificate that the design and methods of
27 construction are in accordance with accepted standards of practice as
28 outlined in this subsection. A record of such certification which includes
29 the specific elevation (in relation to mean sea level) to which such
30 structures are floodproofed shall be maintained by the Floodplain
31 Administrator.
32 2. For all substantial improvements or substantial damage to existing commercial,
33 industrial or other nonresidential structures the entire structure becomes subject to
34 the requirements of a new nonresidential structure.

- 1 3. For any reconstruction, rehabilitation, addition, or other improvement to an
2 existing nonresidential structure that is less than a substantial improvement, only
3 the improved area, but not the entire structure, becomes subject to the requirements
4 of a new nonresidential structure.
- 5 c) For Manufactured Homes in Zone AE or A1-30:
- 6 1. All manufactured homes that are placed or substantially improved on sites:
- 7 a. Outside of a manufactured home park or subdivision,
8 b. In a new manufactured home park or subdivision,
9 c. In an expansion to an existing manufactured home park or subdivision, or
10 d. In an existing manufactured home park or subdivision on which a
11 manufactured home has incurred "substantial damage" as a result of a
12 flood, be elevated on a permanent foundation such that the lowest floor of
13 the manufactured home is elevated at least one (1)-foot or more above the
14 base flood elevation and be securely anchored to an adequately anchored
15 foundation system to resist flotation, collapse, and lateral movement.
- 16 2. Require that manufactured homes be placed or substantially improved on sites in
17 an existing manufactured home park or subdivision on the community's FIRM that
18 are not subject to the provisions of Paragraph (1.) of this section be elevated so that
19 either:
- 20 a. The lowest floor of the manufactured home is at least one (1)-foot or more
21 above the base flood elevation, or
22 b. The manufactured home chassis is supported by reinforced piers or other
23 foundation elements of at least equivalent strength that are no less than
24 thirty-six (36) inches in height above grade and be securely anchored to
25 an adequately anchored foundation system to resist flotation, collapse, and
26 lateral movement.
- 27 3. For all substantial improvements or substantial damage to existing manufactured
28 home, the entire structure becomes subject to the requirements of a new
29 manufactured home.
- 30 4. For any reconstruction, rehabilitation, addition, or other improvement to an
31 existing manufactured home that is less than a substantial improvement, only the
32 improved area, but not the entire structure, becomes subject to the requirements
33 of a new manufactured home.

1 d) When a regulatory floodway has not been designated, the Floodplain Administrator must
2 require that no new construction, substantial improvements, or other development
3 (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM,
4 unless it is demonstrated that the cumulative effect of the proposed development, when
5 combined with all other existing and anticipated development, will not increase the water
6 surface elevation of the base flood more than one foot at any point within the community.

7 (2) Floodways: High risk areas of stream channel and adjacent floodplain

8 a) Developments in regulatory floodways are prohibited, unless

- 9 1. A No-Rise Certificate, signed and stamped by a Professional Engineer licensed
10 to practice in the State of Arkansas, is submitted to demonstrate through hydrologic
11 and hydraulic analyses performed in accordance with standard engineering
12 practice that the proposed development would not result in any increase in flood
13 levels within the community during the occurrence of a base flood event; or
14 2. All requirements of 44 CFR §65.12 are first met.

15 b) No Manufactured Home may be placed in a regulatory floodway, regardless of elevation
16 height, anchoring methods, or No-Rise Certification.

17 (3) In AH or AO Risk Zones: Special Flood Hazard Areas of shallow flooding

18 a) For Residential Structures in Zones AH or AO:

- 19 1. All new residential structures must be constructed with the top surface of the
20 lowest floor elevated at least one (1)-foot or more above the published BFE, or at
21 least one (1)-foot or more above the highest adjacent grade in addition to the depth
22 number specified (at least two (2) feet if no depth number is specified) on the
23 community's FIRM. This elevation must be documented on an Elevation
24 Certificate properly completed by a Professional Engineer, Surveyor or Architect
25 licensed to practice in the State of Arkansas.
26 2. For all substantial improvements or substantial damage to existing residential
27 structures the entire structure becomes subject to the requirements of a new
28 residential structure.
29 3. For any reconstruction, rehabilitation, addition, or other improvement to an
30 existing residential structure that is less than a substantial improvement, only the
31 improved area, but not the entire structure, becomes subject to the requirements of
32 a new residential structure.

33 For Nonresidential Structures in Zones AH or AO:

- 34 1. All new commercial, industrial or other nonresidential structure must either:

- 1 a. Have the top surface of the lowest floor elevated at least one (1)-foot or
2 more above the published BFE, or at least one (1)-foot or more above the
3 highest adjacent grade in addition to the depth number specified (at least
4 two (2) feet if no depth number is specified) on the community's FIRM,
5 with documentation on an Elevation Certificate properly completed by a
6 Professional Engineer, Surveyor or Architect licensed to practice in the
7 State of Arkansas; or
- 8 b. Be floodproofed such that the structure, together with attendant utility and
9 sanitary facilities be designed so at least one (1)-foot or more above the
10 published BFE in Zone AH, or at least on (1)-foot or more above the base
11 specified flood depth in an AO Zone, the structure is watertight with walls
12 substantially impermeable to the passage of water and with structural
13 components having the capability of resisting hydrostatic and
14 hydrodynamic loads of effects of buoyancy.
- 15 2. For all substantial improvements or substantial damage to existing commercial,
16 industrial or other nonresidential structures the entire structure becomes subject to
17 the requirements of a new nonresidential structure.
- 18 3. For any reconstruction, rehabilitation, addition, or other improvement to an existing
19 nonresidential structure that is less than a substantial improvement, only the
20 improved area, but not the entire structure, becomes subject to the requirements of
21 a new nonresidential structure.
- 22 c) For Manufactured Homes in Zones AH or AO:
 - 23 1. All manufactured homes that are placed or substantially improved on sites:
 - 24 a. Outside of a manufactured home park or subdivision,
 - 25 b. In a new manufactured home park or subdivision,
 - 26 c. In an expansion to an existing manufactured home park or subdivision, or
 - 27 d. In an existing manufactured home park or subdivision on which a
28 manufactured home has incurred "substantial damage" as a result of a
29 flood, be elevated on a permanent foundation such that the lowest floor of
30 the manufactured home is elevated at least one (1)-foot or more above the
31 published BFE, or at least one (1)-foot or more above the highest adjacent
32 grade in addition to the depth number specified (at least two (2) feet if no
33 depth number is specified) on the community's FIRM, and be securely

1 anchored to an adequately anchored foundation system to resist flotation,
2 collapse, and lateral movement.

3 2. Require that manufactured homes be placed or substantially improved on sites in
4 an existing manufactured home park or subdivision on the community's FIRM that
5 are not subject to the provisions of Paragraph 1. of this section be elevated so that
6 either:

7 a. The lowest floor of the manufactured home meets the elevation standard
8 of Paragraph 1., or

9 b. The manufactured home chassis is supported by reinforced piers or other
10 foundation elements of at least equivalent strength that are no less than
11 thirty-six (36) inches in height above grade and be securely anchored to
12 an adequately anchored foundation system to resist flotation, collapse, and
13 lateral movement.

14 3. For all substantial improvements or substantial damage to existing manufactured
15 home, the entire structure becomes subject to the requirements of a new
16 manufactured home.

17 4. For any reconstruction, rehabilitation, addition, or other improvement to an
18 existing manufactured home that is less than a substantial improvement, only the
19 improved area, but not the entire structure, becomes subject to the requirements of
20 a new manufactured home.

21 d) Where FEMA has not established a regulatory floodway in Zone in Zones AH or AO, no
22 Floodplain Development Permit may be issued unless a detailed engineering analysis is
23 submitted along with the application that demonstrates the increase in base floodwater
24 elevation due to the proposed development and all cumulative developments since the
25 publication of the current FIRM will be less than one (1)-foot.

26 e) Require adequate drainage paths around structures on slopes, to guide flood waters around
27 and away from proposed structures.

28 (4) In "A" Risk Zones: Special Flood Hazard Areas with no base flood elevations determined

29 a) In Zone A, The applicant or the applicant's agent must determine a base flood elevation
30 prior to construction. The BFE will be based on a source or method approved by the local
31 Floodplain Administrator.

32 b) For Residential Structures in Zone A:

33 1. For all new residential structures, the top surface of the lowest floor must have an
34 elevation at least one (1)-foot or more above the BFE. This elevation must be

1 documented on an Elevation Certificate properly completed by a Professional
2 Engineer, Surveyor or Architect licensed to practice in the State of Arkansas.

3 2. For all substantial improvements or substantial damage to existing residential
4 structures, the entire structure becomes subject to the requirements of a new
5 residential structure.

6 3. For any reconstruction, rehabilitation, addition, or other improvement to an existing
7 residential structure that is less than a substantial improvement, only the improved
8 area, but not the entire structure, becomes subject to the requirements of a new
9 residential structure.

10 c) For Nonresidential Structures in Zone A:

11 1. All new commercial, industrial or other nonresidential structures must either:

12 a. Have the lowest floor (including basement) elevated at least one (1)-foot
13 or more above the base flood level or

14 b. Be floodproofed such that, together with attendant utility and sanitary
15 facilities, be designed so that below an elevation of at least one (1)-foot or
16 more above the base flood level the structure is watertight with walls
17 substantially impermeable to the passage of water and with structural
18 components having the capability of resisting hydrostatic and
19 hydrodynamic loads and effects of buoyancy.

20 c. A registered professional engineer or architect shall develop and/or review
21 structural design, specifications, and plans for the construction, and shall
22 certify on a Floodproofing Certificate that the design and methods of
23 construction are in accordance with accepted standards of practice as
24 outlined in this subsection. A record of such certification which includes
25 the specific elevation (in relation to mean sea level) to which such
26 structures are floodproofed shall be maintained by the Floodplain
27 Administrator.

28 2. For all substantial improvements or substantial damage to existing commercial,
29 industrial or other nonresidential structures the entire structure becomes subject to
30 the requirements of a new nonresidential structure.

31 3. For any reconstruction, rehabilitation, addition, or other improvement to an
32 existing nonresidential structure that is less than a substantial improvement, only
33 the improved area, but not the entire structure, becomes subject to the requirements
34 of a new nonresidential structure.

- 1 d) For Manufactured Homes in Zone A:
- 2 1. All manufactured homes that are placed or substantially improved on sites:
- 3 a. Outside of a manufactured home park or subdivision,
- 4 b. In a new manufactured home park or subdivision,
- 5 c. In an expansion to an existing manufactured home park or subdivision, or
- 6 d. In an existing manufactured home park or subdivision on which a
- 7 manufactured home has incurred "substantial damage" as a result of a
- 8 flood, be elevated on a permanent foundation such that the lowest floor of
- 9 the manufactured home is elevated one (1)-foot above the base flood
- 10 elevation and be securely anchored to an adequately anchored foundation
- 11 system to resist flotation, collapse, and lateral movement.
- 12 2. Require that manufactured homes be placed or substantially improved on sites in
- 13 an existing manufactured home park or subdivision on the community's FIRM that
- 14 are not subject to the provisions of Paragraph (1.) of this section be elevated so that
- 15 either:
- 16 a. The lowest floor of the manufactured home is at least one (1)-foot or more
- 17 above the base flood elevation, or
- 18 b. The manufactured home chassis is supported by reinforced piers or other
- 19 foundation elements of at least equivalent strength that are no less than
- 20 thirty-six (36) inches in height above grade and be securely anchored to
- 21 an adequately anchored foundation system to resist flotation, collapse, and
- 22 lateral movement.
- 23 3. For all substantial improvements or substantial damage to existing manufactured
- 24 home, the entire structure becomes subject to the requirements of a new
- 25 manufactured home.
- 26 4. For any reconstruction, rehabilitation, addition, or other improvement to an
- 27 existing manufactured home that is less than a substantial improvement, only the
- 28 improved area, but not the entire structure, becomes subject to the requirements of
- 29 a new manufactured home.
- 30 e) Base flood elevation data and a regulatory floodway, utilizing accepted engineering
- 31 practices, shall be generated for subdivision proposals and other proposed development
- 32 including the placement of manufactured home parks and subdivisions which is greater
- 33 than fifty (50) lots or five (5) acres, whichever is lesser, if not otherwise provided.

1 **Section 2. Severability.** In the event any section, subsection, subdivision, paragraph, subparagraph,
2 item, sentence, clause, phrase, or word of this ordinance is declared or adjudged to be invalid or
3 unconstitutional, such declaration or adjudication shall not affect the remaining provisions of this
4 ordinance, as if such invalid or unconstitutional provision was not originally a part of this ordinance.

5 **Section 3. Repealer.** All ordinances, resolutions, bylaws, and other matters inconsistent with this
6 ordinance are hereby repealed to the extent of such inconsistency.

7 **PASSED: July 7, 2015**

8 **ATTEST:**

APPROVED:

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10 _____
11 **Susan Langley, City Clerk**

_____ **Mark Stodola, Mayor**

12 **APPROVED AS TO LEGAL FORM:**

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14 _____
15 **Thomas M. Carpenter, City Attorney**

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