

# **FLOOD DAMAGE PREVENTION CODE FOR THE CITY OF TONTITOWN, ARKANSAS \_\_\_\_\_, 2008**

## **ARTICLE 1. DEFINITIONS**

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

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

*44 CFR (Emergency Management and Assistance – National Flood Insurance Program Regulations)* Parts 59-75 contain Federal regulations upon which local floodplain managements are based

*44 CFR § 65.12* – contains the section of the Federal regulations that involves revision of flood insurance rate maps to reflect base flood elevations caused by proposed encroachments.

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

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

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

*“Adverse Impact”* means any negative or harmful effect.

*“AE Risk Zones”* are special flood hazard areas where detailed studies have determined base flood elevations.

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

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

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

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

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

*“Base Flood”* is the flood profile used as the basis for the NFIP regulations. The Federal government has selected the “100-year flood” as the base flood.

*“Base Flood Elevation”* refers to the expected height of floodwaters during the peak of the base flood event.

*“Basement”* is any enclosed area that is below grade on all four walls.

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

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

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

*“CFR”* is the acronym for the Code of Federal Regulations. The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. The Federal regulations pertaining to the national Flood Insurance Program are found in title 44, Emergency Management and Assistance.

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

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

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

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

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

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

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

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

“*Development*” broadly means any manmade change in improved or unimproved real estate. It includes, but is not limited to, construction, reconstruction, or placement of a building, or any addition or substantial improvement to a building. “Development” also includes the installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 consecutive days. The installation of utilities, construction of roads, bridges, culverts or similar projects are also “developments.” Construction or erection of levees, dams, walls, or fences; drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface are “developments.” Storage of materials including the placement of gas and liquid storage tanks are “developments,” as are channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters. “Development” does not include maintenance of existing buildings and facilities, maintenance of existing drainage ditches, resurfacing of roads, gardening, plowing, ranching, routine farming, or similar practices that do not involve filling, grading, or construction of levees.

“*Development Permit*” refers to the permit required for placing a “development” in the floodplain.

“*Easements*” are rights or permissions held by one person to make specific, limited use of land owned by another person.

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

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

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

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

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

*“Federal Emergency Management Agency”*, or FEMA, is the Federal agency responsible for administering the National Flood Insurance Program.

*“FEMA”* is the acronym for the Federal Emergency Management Agency.

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

*“FIRM”* is the acronym for Flood Insurance Rate Map.

*“Flood Fringe”* refers to the portion of the 100-year floodplain that is outside the floodway (See definition of floodway below.)

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

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

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

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

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

*“Floodplain Administrator”* refers to the community official designated in the local Flood Damage Prevention Code as responsible for the Code’s administration.

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

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

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

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

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

*“Functionally Dependent Use”* is a use that requires a location or construction contrary to the requirements of the Code. Shipyards and docks are the most common examples of “functionally dependent uses,” but in Arkansas, water and wastewater treatment facilities are often constructed on normally prohibited sites. Another example of a functionally dependent use might be an addition to a manufacturing facility with precision equipment that must align with existing equipment in a pre-existing, pre-FIRM building. Variances may be granted for functionally dependent uses.

*“Grade”* means the surface of the ground.

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

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

“*Historical Structure*” means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
4. Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either:
  - a. By an approved state program as determined by the Secretary of the Interior or;
  - b. Directly by the Secretary of the Interior in states without approved programs.

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

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

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

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

“*Lowest Floor*” refers to the lowest floor of the lowest enclosed area (including basement). For a typical slab-on-grade construction, the elevation of the lowest floor is the top of the first floor of the house. For a typical basement foundation construction, the elevation of the lowest floor is the top of the basement floor. For a typical crawlspace foundation construction, the elevation of the lowest floor is the top of the first floor of the house. For typical split-level constructions, the elevation of the lowest floor is the top of the first living area floor – the garage

floor is not the lowest floor as long as there are no living areas in the garage and it is used solely for storage, parking vehicles and entry to the house. The elevation of the lowest floor of a manufactured home, however, is the bottom surface of the lowest floor joist.

*“Manufactured Homes or Structures”* are modular in nature and are constructed elsewhere and transported to another site for placement, assembly, or reassembly.

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

*“Mean Sea Level” (MSL)* means, for the purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community’s FIRM are referenced.

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

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

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

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

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

*“No-Rise Certificates”* are formal certifications signed and stamped by a Professional Engineer licensed to practice in the State of Arkansas, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that a proposed development will not result in any increase in flood levels within the community during the occurrence of a base flood event.

*“Piers”* are columns of masonry or other structural material (commonly cement blocks stacked up to support a manufactured home), usually rectangular, used to support other structural members.

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

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

*“Recreational Vehicle”* means a vehicle that is:

- (i) Built on a single chassis;
- (ii) Four hundred (400) square feet or less when measured at the largest horizontal projections;
- (iii) Designed to be self-propelled or permanently towable by a light duty truck; and
- (iv) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

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

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

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

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

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

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

*“Shallow Flooding”* means a depth of less than 3 feet.

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

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

