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STATE OF OKLAHOMA  
TULSA COUNTY  
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EARLENE WILSON  
TULSA COUNTY CLERK



*From the desk of*  
**Andrea M. Wyrick**  
Assistant District Attorney  
Tulsa County District Attorney's Office  
*Civil Division*  
918-596-4814

**APPROVED**

**AUG 03 2009**

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**TO:** John Smaligo, Chairman  
Karen Keith  
Fred Perry

**DATE:** July 24, 2009

**RE:** Resolution Adopting Floodplain Management Rules Per FEMA

I would request the aforementioned matter to be placed on the agenda for the August 3, 2009 meeting of the BOCC. An Executive Session is not necessary. FEMA is requiring the attached Resolution to be in effect on or before August 3, 2009. This Resolution is very similar to one adopted by the BOCC in 2003, with a few changes per FEMA's recommendation or requirements. One new provision worth noting is the penalty language for noncompliance added in Section 18. This was one of FEMA's biggest requirements for this new Resolution. I recommend the BOCC adopt this Resolution at the August 3, 2009 meeting. If you have any questions, please don't hesitate to call me.

Sincerely,

A handwritten signature in cursive script that reads "Andrea M. Wyrick".

Andrea M. Wyrick  
Assistant District Attorney

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AT A REGULAR MEETING OF THE BOARD OF COUNTY COMMISSIONERS, HELD ON THE 3 DAY OF Aug, 2009, AT WHICH A MAJORITY OF ALL MEMBERS COMPOSING SAID BOARD WERE PRESENT, THE FOLLOWING RESOLUTION WAS INTRODUCED BY COMMISSIONER Keith, WHO MOVED ITS ADOPTION; THE MOTION BEING SECONDED BY COMMISSIONER Perry, AND ON ROLL CALL BEING UNANIMOUSLY CARRIED, THE FOLLOWING RESOLUTION WAS ADOPTED.

2009 JUL 24 PM 4: 01  
EVA WILSON  
TULSA COUNTY CLERK

APPROVED

RESOLUTION 2009-

AUG 03 2009

Resolution Adopting Floodplain Management Rules, As Previously Amended

WHEREAS, the flood hazard areas of Tulsa County, Oklahoma 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, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare; and

WHEREAS, 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 hazards areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, flood proofed or otherwise protected from flood damage; and

WHEREAS, the Board of County Commissioners of Tulsa County, Oklahoma last amended the Floodplain Management Rules of Tulsa County in the State of Oklahoma on the 17<sup>th</sup> day of March, 2003 (Tulsa County Clerk's Miscellaneous File#188194); and,

WHEREAS, it is the desire of the Board of County Commissioners of Tulsa County, Oklahoma, 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 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;

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7. Insure that potential buyers are notified that property is in a flood area.

WHEREAS, pursuant to Title 19 O.S. §865.51, et seq., the Board of County Commissioners of Tulsa County, Oklahoma, are vested with the power to promulgate and enforce zoning and land use regulations;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Tulsa County that the Floodplain Management rules of Tulsa County in the State of Oklahoma (adopted on the 28<sup>th</sup> day of June, 1982, Clerk's Misc. File #101972 and amended on the 10<sup>th</sup> day of February, 1987, Clerk's Misc. File #116273 and on the 5<sup>th</sup> day of February, 1990, Clerk's Misc. File #131139 and on the 13<sup>th</sup> day of February, 1995, Clerk's Misc. File #155258, and on the 17<sup>th</sup> day March, 2003, Clerk's Misc. File #188194) be further resolved and amended as follows:

### SECTION 1

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

1. Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or 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.

### SECTION 2

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

**ACCESSORY STRUCTURE** - 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).

**AREA OF SHALLOW FLOODING** - means a designated AO or AH zone on a community's Flood Insurance Rate Map (FIRM) with a one percent chance or greater

annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

**AREA OF SPECIAL FLOOD HAZARD** - is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO or A1-99.

**BASE FLOOD** - means the flood having a one percent chance of being equaled or exceeded in any given year.

**BASE FLOOD ELEVATION** - means the elevation in feet above mean sea level of the Base Flood or 1% chance flood.

**BASEMENT** - means any area of the building having its floor sub-grade (below ground level) on all sides.

**BOARD** - means the Oklahoma Water Resources Board.

**CRITICAL FEATURE** - means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

**DEVELOPMENT** - means any man-made change in improved and unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

**ELEVATED BUILDING** - means a non-basement building built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

**EXISTING CONSTRUCTION** - means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

**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).

**FLOOD OR FLOODING** - means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters.
2. The unusual and rapid accumulation or runoff of surface waters from any source.

**FLOOD INSURANCE RATE MAP (FIRM)** - means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

**FLOOD INSURANCE STUDY** - is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevations of the base flood, as well as the floodway width, section area and mean velocities.

**FLOODPLAIN ADMINISTRATOR** - means a person accredited by the Board and designated by a floodplain board, to administer and implement laws and regulations relating to the management of the floodplains.

**FLOODPLAIN OR FLOOD-PRONE AREA** - means any land area susceptible to being inundated by water from any source (see definition of flooding).

**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.

**FLOODPLAIN MANAGEMENT REGULATIONS** - means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

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

**FLOOD PROOFING** - means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

**FLOODWAY (REGULATORY FLOODWAY)** - means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

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

**HIGHEST ADJACENT GRADE** - means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

**HISTORIC 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 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.

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

**LEVEE SYSTEM** - means a flood protection system, which consists of a levee, or levees, and associated structures, such as closure, and drainage devices, which are constructed and operated in accordance with sound engineering practices.

**LOWEST FLOOR** - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; **provided** that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood Insurance Program regulations.

**MANUFACTURED HOME** - means a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

**MANUFACTURED HOME PARK OR SUBDIVISION** - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**MEAN SEA LEVEL** - means, for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

**NEW CONSTRUCTION** - means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective 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.

**RECREATIONAL VEHICLE** - means a vehicle which is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projections;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use

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

**STRUCTURE** - means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

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

**SUBSTANTIAL IMPROVEMENT** - means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before "start of construction" of the improvement. This includes structures that have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

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



**VARIANCE** - is a grant of relief to a person from the requirement of these regulations or resolution when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by these regulations.

**VIOLATION** - means the failure of a structure or other development to be fully compliant with this community's floodplain management regulations.

**WATER SURFACE ELEVATION** - means the height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

### SECTION 3

BE IT RESOLVED by the Board of County Commissioners of Tulsa County as follows:

This resolution shall apply to all areas of special flood hazard within the jurisdiction of Tulsa County, Oklahoma.

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 Tulsa County, Oklahoma and Incorporated areas" dated August 3, 2009, with accompanying Flood Insurance Rate Map (FIRM) are hereby adopted by reference and declared to be a part of this resolution. **However, the current existing flood damage prevention resolution for Tulsa County, Oklahoma shall remain in effect until August 3, 2009.**

### SECTION 4

A Development Permit shall be required to ensure conformance with the provisions of this floodplain management resolution.

### SECTION 5

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

### SECTION 6

This resolution is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this resolution and any other resolution,

easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

## **SECTION 7**

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

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

## **SECTION 8**

The degree of flood protection required by this resolution 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 man-made or natural causes. This resolution 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 resolution shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on these regulations or any administrative decision lawfully made hereunder.

## **SECTION 9**

The County Inspector is hereby appointed the Floodplain Administrator to administer and implement the provisions of this resolution and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

1. Maintain and hold open for public inspection all records pertaining to the provisions of these regulations.
2. Review permit application to determine whether 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 adoption of these regulations.
4. Review permits for proposed development to assure 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 U.S.C. 1334) from which prior approval are 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) the Floodplain Administrator shall make the necessary interpretation.
6. Notify, in riverine situations, adjacent communities and the State Coordinating Agency, the Oklahoma Water Resources Board, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
7. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
8. Shall obtain certified Base Flood Elevation data from the applicant/developer to administer this ordinance effectively and reduce flood damage within the community.
9. When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community'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 foot at any point within the community.
10. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community first complies with 44 CFR, Chapter 1, Section 65.12.
11. Become accredited by the Board in accordance with Title 82 O.S. §§ 1601-1618, as amended.
12. After a disaster or other type of damage occurrence to structures in Tulsa County, Oklahoma, determine if the residential & non-residential structures & manufactured homes located in the SFHA have been substantially damaged and enforce the substantial improvement requirement.

## SECTION 10

Application for a Development Permit 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 the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

1. Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new and substantially improved structures;
2. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
5. Maintain a record of all such information in accordance with Article 4, Section (B)(1).

Approval or denial of a Development Permit by the Floodplain Administrator shall be based on all of the provisions of these regulations and the following relevant factors:

1. The danger to life and property due to flooding or erosion damage;
2. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
3. The danger that materials may be swept onto other lands to the injury of others;
4. The compatibility of the proposed use with existing and anticipated development;
5. The safety of access to the property in times of flood for ordinary and emergency vehicles;
6. 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;
7. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
8. The necessity to the facility of a waterfront location, where applicable;
9. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
10. The relationship of the proposed use to the comprehensive plan for that area.

## SECTION 11

1. The Tulsa County Board of Adjustment as established by the community shall hear and render judgment on requests for variances from the requirements of this resolution.
2. The Board 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 resolution.
3. Any person or persons aggrieved by the decision of the Board may appeal such decision to the District Court.
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.
5. 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 the remainder of this resolution.
6. Variances may **not** 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.
7. Upon consideration of the factors noted above and the intent of this resolution, the Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this resolution.
8. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
9. 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.
10. Prerequisites for granting variances:
  - 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:
    - 1) Showing a good and sufficient cause;

- 2) A determination that failure to grant the variance would result in exceptional hardship to the applicant, and
  - 3) 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, regulations or ordinances.
- c) No variance shall be granted for a structure to be constructed below the base flood elevation.
11. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:
- a) The criteria outlined in Section 11 (1)-(9) are met, and
  - b) 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.
12. Any person seeking a variance shall file a petition with the Tulsa County Board of Adjustment, accompanied by a filing fee of Twenty-five Dollars (\$25.00).
13. A copy of any variance issued shall be sent to the OWRB within in fifteen (15) days of issuance.

## **SECTION 12**

In all areas of special flood hazard the following provisions 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/or located so as 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 sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters; and,
7. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

### SECTION 13

In all areas of special flood hazards the following provisions are required:

1. **Residential Construction** - new construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated at a minimum of two (2) foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed is satisfied.
2. **Nonresidential Construction** - new construction and substantial improvements of any commercial, industrial or other nonresidential structure shall have the lowest floor (including basement) elevated at a minimum of two (2) foot above the base flood level.
3. **Enclosures** - new construction and substantial improvements, with fully enclosed areas 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 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 square inch for every square foot of enclosed area subject to flooding shall be provided.
  - b) The bottom of all openings shall be no higher than one foot above grade.

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

**4. Manufactured Homes -**

- a) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices that minimize flood damage and have the bottom of the I beam elevated at a minimum of two (2) foot above the base flood elevation. For the purposes of this requirement, manufactured homes must be elevated 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 requirement is in addition to applicable State and local anchoring requirements for a licensed installer shall install resisting wind forces and the home and comply with State Law.
- b) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated at a minimum of two (2) foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. Also, the home shall be installed by a licensed installer and comply with State Law.
- c) Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that
  - 1) The bottom of the I-beam of the manufactured home is at a minimum two (2) foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement support the manufactured home chassis and also installed by a licensed installer that complies with state law.

**5. Recreational Vehicles -** Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM 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, and the elevation and anchoring requirements for "manufactured homes" in paragraph (4) of this section. 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.

**6. Accessory Structure -**

- a) Structure is low valued and represents a minimal investment.
- b) Structure shall be small and not exceed 600 square feet in size.
- c) Structure shall be unfinished on the interior.
- d) Structure can be used only for parking and limited storage.
- e) Structure shall not be used for human habitation (including work, sleeping, living, cooking, or restroom areas).
- f) Service facilities such as electrical and heating equipment shall be elevated at a minimum of two (2) foot above the BFE.
- g) Structure is constructed and placed on building site so as to offer the minimum resistance to the flow of floodwaters.
- h) Structure is designed to have low flood damage potential i.e. constructed with flood resistance materials.
- i) Structure is firmly anchored to prevent flotation, collapse, and lateral movement.
- j) Floodway requirements must be met in the construction of the structure.
- k) Openings to relieve hydrostatic pressure during a flood shall be provided below the BFE.
- l) Structure is to be located so as not to cause damage to adjacent and nearby structures.

**SECTION 14**

- 1. All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with previous sections of this resolution.

2. All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Development Permit requirements and the provisions of Section 13 of this resolution.
3. Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided in this resolution.
4. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
5. All subdivision 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.

## SECTION 15

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

1. All new construction and substantial improvements of **residential** structures have the lowest floor (including basement) elevated at a minimum of two (2) foot above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
2. All new construction and substantial improvements of **non-residential** structures shall have the lowest floor (including basement) elevated at a minimum of two (2) foot above the highest adjacent grade and at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
3. A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this Section are satisfied.
4. Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

## SECTION 16

Floodways - located within areas of special flood hazard established in Section 3 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris, potential projectiles and erosion potential, the following provisions shall apply:

1. 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 community during the occurrence of the base flood discharge.
2. If Section 13 above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions.
3. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community **complies with all of 44 CFR Chapter 1, Section 65.12.**

## SECTION 17

If any section, clause, sentence, or phrase of this resolution is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this resolution.

## SECTION 18

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this resolution and other applicable regulations. Violation of the provisions of this resolution 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 who violates this resolution 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. Nothing herein contained shall prevent the Board of County Commissioners of Tulsa County, Oklahoma from taking such other lawful action as is necessary to prevent or remedy any violation.

### EFFECTIVE DATE

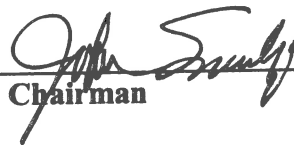
This Resolution goes into effect August 3, 2009.

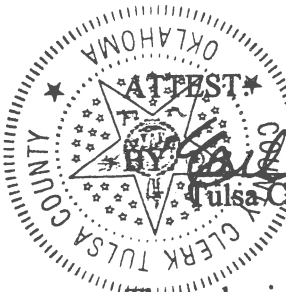
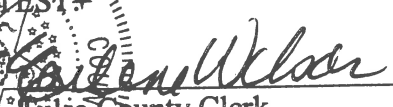
**CERTIFICATION**

It is hereby found and declared by the Board of County Commissioners of Tulsa County, Oklahoma 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 resolution become effective immediately.

Therefore, an emergency is hereby declared to exist, and this resolution, 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.


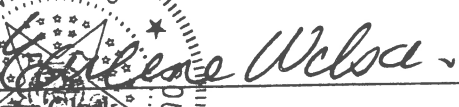
**BOARD OF COUNTY COMMISSIONERS OF TULSA COUNTY, OKLAHOMA**

BY:   
Chairman

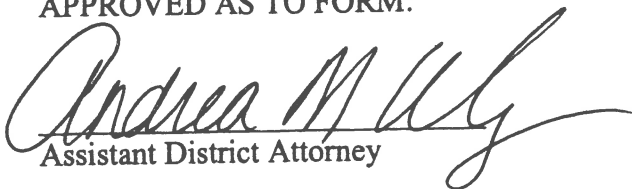
   
Tulsa County Clerk

The undersigned, \_\_\_\_\_, do hereby certify that the above is a true and correct copy of a resolution duly adopted by the Board of County Commissioners of Tulsa County, Oklahoma, at a regular meeting duly convened on 8/3/09.

(SEAL)

   
County Clerk

APPROVED AS TO FORM:

  
Assistant District Attorney

SEP 12 2016

AT A REGULAR MEETING OF THE BOARD OF COUNTY COMMISSIONERS OF TULSA COUNTY HELD ON THE 12th DAY OF SEPTEMBER, 2016, AT WHICH A MAJORITY OF ALL MEMBERS COMPOSING SAID BOARD WERE PRESENT, THE FOLLOWING RESOLUTION WAS INTRODUCED BY COMMISSIONER Peters, WHO MOVED ITS ADOPTION: THE MOTION BEING SECONDED BY COMMISSIONER Spalero, THE CHAIRMAN ORDERED THE RESOLUTION READ.

**RESOLUTION**

**Resolution Amending Floodplain Management Rules, As Previously Amended**

Whereas Tulsa County participates in the National Flood Insurance Program:

Whereas Tulsa County residents can purchase affordable flood insurance through the NFIP;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of County Commissioners of Tulsa County, Oklahoma that the Resolution Adopting Tulsa County Floodplain Management Rules and Regulation Resolution 2012 CMF#225904, be amended, adopting the following FEMA Flood Insurance Rate Maps: PANELS #0392, 0394, 0457, 0458 and 0459.

**ARTICLE 3**

**GENERAL PROVISIONS**

**SECTION B**

**BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARDS**

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering reports entitled, "The Flood Insurance Study for Tulsa County, Oklahoma and Incorporated Areas" dated September 30, 2016, with the accompanying Flood Insurance Rate Map (FIRM) are hereby adopted by reference and declared to be a part of these regulation. However, the current effective flood maps for Tulsa County identified by the "The Flood Insurance Study for Tulsa County, Oklahoma and Incorporated Areas" dated October 16, 2012, with the accompanying Flood Insurance Rate Map (FIRM) shall be used for this purpose until September 30, 2016.

Approved this 12 Day of September, 2016

ATTEST

Pats Kay  


Board of County Commissioners

[Signature]

[Signature]  
DISTRICT ATTORNEY

239228

STATE OF OKLAHOMA  
TULSA COUNTY  
SEP - 7 11:10:26