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Ordinance No. _____

ORDINANCE AMENDING THE OKLAHOMA CITY MUNICIPAL CODE, 2020, AMENDING CHAPTER 16 RELATING TO DRAINAGE AND FLOOD CONTROL, BY AMENDING SECTION 16-6, PRIMARY DRAINAGE CHANNEL REQUIREMENTS, SECTION 16-7, SECONDARY DRAINAGE CHANNELS AND SURFACE DRAINAGE REQUIREMENTS, SECTION 16-8, RURAL SUBDIVISIONS, SECTION 16-10, MAJOR RIVER CHANNEL REQUIREMENTS AND SECTION 16-18, APPLICABILITY OF PROVISIONS.

ORDINANCE

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF OKLAHOMA CITY:

SECTION 1. That Sections 16-6, 16-7, 16-8, 16-10 and 16-18 of Chapter 16 of the Oklahoma City Municipal Code, 2020, is hereby amended to read as follows:

CHAPTER 16

DRAINAGE AND FLOOD CONTROL

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§ 16-6. Primary drainage channel requirements.

All primary drainage channels which are located within, or immediately adjacent to, an improvement, construction area, development or subdivision shall be protected and improved by the developer as follows:

- (1) all land having an elevation below the 50-year maximum flood elevation for the final improved channel shall be dedicated for the purpose of providing drainage, for public park, or drainage and utility easement use.
- (2) the existing channel lying within or immediately adjacent to the subdivision or parcel of land proposed for development or redevelopment shall be cleaned to provide for the free flow of water, and the channel shall be straightened, widened, and improved to the extent required to prevent overflow, resulting from a 50-year frequency rainfall, beyond the limits of the dedicated drainage easement provided for in Subparagraph (1) above.
- (3) site improvement shall provide for the grading of all building pads to an elevation where all building pads will not be subject to overflow from a 100-year frequency flood and in a manner that will provide for a rapid runoff of stormwater. Manufactured home placement pads shall be elevated to the level of the 100-year frequency flood. All manufactured homes shall be anchored in accordance with requirements outlined in the Federal Emergency Management Agency Flood Plain Management Regulations,

Subpart A, Section 60.3(b)(8). Substantial improvements to existing structures within the 100-year floodplain will be subject to all regulations and requirements of this chapter:

- a. new construction or substantial improvements of residential structures (including manufactured homes) and accessory buildings shall have the lowest floor (including basements) elevated to one foot above the level of the 100-year frequency flood.
 - b. new construction or substantial improvements of nonresidential structures and accessory buildings within the 100-year floodplain must have the lowest floor (including basement) elevated to one foot above the 100-year flood level or floodproofed, including utility and sanitary facilities, up to one foot above the level of the 100-year flood.
 - c. mechanical and utility equipment for residential or nonresidential structures ~~shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding~~ must be elevated to one foot above the level of the 100-year flood.
 - d. if a nonresidential structure is intended to be floodproofed, a registered professional engineer or architect shall develop and/or review structural design, specifications and plans for the construction, and shall certify that the design and methods of construction are in accordance with the accepted standards of practice for meeting the elevation requirements of this chapter. A record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be submitted to and maintained by the office of the City Engineer.
- (4) whenever channel improvements are carried out, sodding, backsloping, cribbing, and other bank protection shall be designed and constructed to control erosion for the anticipated conditions and flow resulting from a 50-year frequency rainfall.
- (5) a drainage channel shall not be located in a street easement unless it is placed in an enclosed storm sewer except under the following conditions:
- a. where a paved street surface at least two lanes wide is provided on both sides of a paved channel so as to provide access to abutting properties.
 - b. where lots are platted to back up to the street right-of-way where the drainage channel is located between the rear lot line and the paved street, provided, that there is no access to the rear of the lot from the street, and further provided that at no time in the future shall access be allowed or constructed over the open drainage channel to the rear of a lot so platted. For the purpose of these regulations, a lot which sides to a public street is not considered to back up to the street right-of-way.
 - c. when a condition outlined in either Subsection a. or b. above is present, adequate space adjacent to the channel shall be dedicated as right-of-way to provide for maintenance of the paved drainage channel and its unpaved bank.
- (6) culverts, bridges, and other drainage structures shall be constructed in accordance with the specifications and design criteria of the City whenever the City may have present or future maintenance responsibility.

§ 16-7. Secondary drainage channels and surface drainage requirements.

All secondary drainage channels which are within, or immediately adjacent to, an improvement, development or subdivision, shall be protected and improved by the developer as follows:

- (1) all land having an elevation below the 50-year maximum flood elevation for the final improved channel shall be dedicated for the purpose of providing drainage, for public park, or drainage and utility easement use.
- (2) secondary drainage channels which have a primary function of collecting surface water from adjacent properties or intercepting and diverting side hill drainage shall be improved open channels.
- (3) secondary drainage channels which have a primary function of transporting water through the block or collecting water from cross channels and which have a drainage area of less than 40 acres shall be improved with closed storm sewers unless special approval has been given by the City Engineer for construction of a concrete lined channel; and where the secondary drainage channel has a drainage area of greater than 40 acres, an improved open channel or closed storm sewer shall be provided. When the unit area to be drained is less than six acres, the City Engineer may modify the requirements of the first part of this provision to permit a paved open channel, designed for use as a sidewalk, having a minimum width of four feet and provided with six-inch curbs, when designed to drain from the street to a natural stream or improved open channel.
- (4) site improvement shall provide for the grading of all building pads to an elevation where all building pads will not be subject to overflow from a 100-year frequency flood and in a manner that will provide for the rapid runoff of stormwater. Manufactured home placement pads shall be elevated to the 100-year frequency flood elevation. All manufactured homes shall be anchored in accordance with requirements outlined in the Federal Emergency Management Agency Flood Plain Management Regulations, Subpart A, Section 60.3(b)(8). Substantial improvements to existing structures within the 100-year floodplain will be subject to all regulations and requirements of this chapter.

New construction or substantial improvements of residential or nonresidential structures (including manufactured homes) shall have the lowest floor (including basements) elevated to one foot above the level of the 100-year frequency flood. Nonresidential structures and accessory buildings may meet this requirement by floodproofing the structures, including utility and sanitary facilities, up to one foot above the level of the 100-year frequency flood. Mechanical and utility equipment for residential or nonresidential structures ~~shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding~~ must be elevated to one foot above the level of the 100-year flood. If a nonresidential structure is intended to be floodproofed, a registered professional engineer or architect shall develop and/or review structural design, specifications and plans for the construction, and shall certify that the design and methods of construction are in accordance with the accepted standards of practice for meeting the elevation requirements of this chapter. A record of such certificates which includes the specific elevation (in relation to mean sea

level) to which such structures are floodproofed shall be submitted to and maintained by the office of the City Engineer.

- (5) a drainage channel shall not be located in a street easement unless it is placed in an enclosed storm sewer except under the following conditions:
 - a. where a paved street surface of at least two lanes is provided on both sides of a paved channel so as to provide access to abutting properties; or
 - b. where lots are platted to back up to the street right-of-way where the drainage channel is located between the rear of the lot line and the paved street, and further provided that at no time in the future shall access be allowed or constructed over the open drainage channel to the rear of a lot so platted. For the purpose of these regulations, a lot which sides to a public street is not considered to back up to the street right-of-way.
 - c. When a condition outlined in either Subsection (5)a. or (5)b. above is present, adequate space adjacent to the channel shall be dedicated as right-of-way to provide for maintenance of the paved drainage channel and its unpaved bank.
- (6) in single-family residential, duplex or manufactured home developments, site grading shall be carried out in such a manner that surface water from each dwelling lot will flow directly to a storm sewer, improved channel, sodded swale, or paved street without crossing more than four adjacent lots.
- (7) surface water collected in streets shall be diverted to storm drains at satisfactory intervals to prevent overflow of six-inch-high curbs during 25-year frequency rain for the area and grades involved. Drainage area allowed for surface flow on streets at point of diversion shall not exceed 20 acres, regardless of flow.
- (8) drainage easement of satisfactory width to provide working room for construction and maintenance shall be provided for all storm sewers with the minimum width being 15 feet.
- (9) open channels shall be improved by providing a paved section that will carry the runoff from a rain of 50-year frequency within the lined section and sodded section to carry the additional runoff from a rain of 100-year frequency. Whenever an open improved channel is required or authorized for a secondary drainage channel under the provisions of these regulations and the channel crosses residential lots which have been developed under the community unit plan and/or planned unit development or where the channel improvement is to be designed as an area that will be maintained by a property owners' association, the City Engineer may modify the requirements of the first part of this provision to permit a channel improvement design in keeping with landscape architectural plans, provided all hydraulic requirements to support the overflow resulting from a 100-year frequency rainfall are met in such a manner as to prevent flooding of all building pads.

§ 16-8. Rural subdivisions.

- (a) The development of rural acreage subdivisions, one acre or larger lots, shall be carried out in such a manner that surface water from each lot will flow to a roadway side ditch, swale, channel, or natural creek. Prior to final plat or building permit approval the developer shall

provide the City Engineer detailed construction plans showing channel and roadway side ditch sizes, grades, and driveway pipe sizes as well as erosion control measures necessary to prevent erosion of the proposed channel construction. These improvements shall include but not be limited to sodding, channel lining or ditch checks as required to prevent erosion of the proposed or existing channel. These improvements shall be the responsibility of the developer and shall be installed by the developer and inspected by the City prior to the issuance of building permits.

- (b) Runoff from a 25-year frequency storm shall be used for the purpose of determining the sizing of roadway side ditches and driveway pipes. Surface water collected in roadway side ditches shall be directed to a secondary drainage channel not located within the street right-of-way as often as the terrain will allow.
- (c) Runoff from a 50-year frequency storm shall be used for sizing channels, creeks, and any structures that are needed for street crossings.
- (d) Site improvements shall provide for the grading of all building pads to an elevation that will not be subject to overflow from a 100-year frequency flood and in a manner that will provide for the rapid runoff of stormwater. Manufactured home placement pads shall be elevated to the level of the 100-year frequency flood. All manufactured homes shall be anchored in accordance with requirements outlined in the Federal Emergency Management Agency Flood Plain Management Regulations, Subpart A, Section 60.3(b)(8). Mechanical and utility equipment for residential or nonresidential structures ~~shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding~~ must be elevated to one foot above the level of the 100-year flood. Substantial improvements to existing structures within the 100-year floodplain will be subject to all regulations and requirements of this chapter. The areas projected for inundation by the 50-year frequency flood shall remain free of all structures and shall be preserved in as natural a condition as possible. The maintenance of channels serving drainage areas of less than 500 acres shall be the responsibility of the property owner, the adjoining or abutting property owner or owners, or a duly constituted homeowners' association unless such improvements are installed by the developer as outlined in Section 16-7 and accepted for maintenance by the City. Drainage areas containing more than 500 acres shall be improved as outlined in Section 16-7.

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§ 16-10. Major river channel requirements.

All major river channels which are located within or immediately adjacent to an improvement or subdivision shall be protected and improved by the developer as follows:

- (1) all land having an elevation below the 50-year maximum flood elevation for the final improved channel shall be dedicated for the purpose of providing drainage and/or utility easement use.
- (2) the existing channel shall be cleaned to provide free flow of water, straightened, widened, leveed or diked, or otherwise improved to the extent required to prevent overflow from a 50-year frequency flood.

- (3) site improvements for residential building must have the lowest floor (including basement) elevated to one foot above the 100-year flood level. Manufactured home placement pads shall be elevated to the 100-year frequency flood. All manufactured homes shall be anchored in accordance with requirements outlined in the Federal Emergency Management Agency Flood Plain Management Regulations, Subpart A, Section 60.3(b)(8).
- (4) new construction or substantial improvements of nonresidential structures and accessory buildings within the 100-year floodplain must have the lowest floor (including basement) elevated to one foot above the 100-year flood level or floodproofed including utility and sanitary facilities up to one foot above the level of the 100-year flood. Mechanical and utility equipment for residential or nonresidential structures (4) new construction or substantial improvements of nonresidential structures and accessory buildings within the 100-year floodplain must have the lowest floor (including basement) elevated to one foot above the 100-year flood level or floodproofed including utility and sanitary facilities up to one foot above the level of the 100-year flood. Mechanical and utility equipment for residential or nonresidential structures ~~shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding~~ must be elevated to one foot above the level of the 100-year flood. If a nonresidential structure is intended to be floodproofed, a registered professional engineer or architect shall develop and/or review structural design, specifications and plans for the construction, and shall certify that the design and methods of construction are in accordance with the accepted standards of practice for meeting the elevation requirements of this chapter. A record of such certificates, which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed, shall be submitted to and maintained by the office of the City of Engineer.
- (5) fill, grading measures and building floodproofing measures shall be approved by the City Engineer. The minimum standards shall apply as set forth in the "Floodproofing Regulations" prepared by the Office of the Chief of Engineers, U.S. Army, Washington, D.C., June 1972.

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§ 16-18. Applicability of provisions.

- (a) The floodprone area provisions of this chapter shall apply to all lands, tracts, parcels or lots in part or in whole which are traversed by, encompassed by or lying within 200 feet of the external boundaries of the delineated floodplain for that watercourse as shown on the official floodplain maps or an area deemed floodprone by the City Engineer.
- (b) The location and boundaries of the floodplain are shown upon the "Official Flood Plain Maps" of the City, which are hereby incorporated into this regulation and placed on file in the office of the City Clerk. The said maps, together with everything shown thereon and all amendments thereto, shall be as much a part of this section as if fully set forth and described herein. Application of this chapter may be modified on portions of major river channels, primary channels and secondary channels only by specific application of "Type 15" or "Type 19"

Federal Insurance Administration studies (Flood Hazard Boundary Maps) as completed and received from the Administrator.

- (c) The boundaries of the floodplain shall be as they appear on the official floodplain maps kept on file with the City Clerk. The boundary lines on the map shall be determined by the use of the scale appearing on the map. Where there is conflict between the boundary lines on the map and actual field conditions, the dispute shall be settled by the City Engineer. In all cases the person contesting the location of the boundary shall be given a reasonable opportunity to present his case to the City Engineer and to submit his own technical evidence if he so desires. The City Engineer shall not allow deviations from the boundary line as mapped unless the evidence clearly and conclusively establishes that the mapped location of the line is incorrect.
- (d) The areas of special flood hazard are identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Canadian County, Oklahoma and Incorporated Areas" dated June 7, 2019, with accompanying Flood Insurance Rate Map (FIRM), are hereby adopted by reference and declared to be a part of this chapter.
- (e) 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 Cleveland County, Oklahoma and Incorporated Areas" dated ~~January 15, 2021~~ March 27, 2024, with accompanying Flood Insurance Rate Map (FIRM) dated March 27, 2024, are hereby adopted by reference and declared to be a part of this chapter.
- (f) 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 Oklahoma County, Oklahoma and Incorporated Areas" dated ~~December 18, 2009~~ March 27, 2024, with accompanying Flood Insurance Rate Map (FIRM) dated March 27, 2024, are hereby adopted by reference and declared to be a part of this chapter.
- (g) 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 Pottawatomie County, Oklahoma and Incorporated Areas" dated May 16, 2019 with accompanying Flood Insurance Rate Map (FIRM), are hereby adopted by reference and declared to be a part of this chapter. However, the current areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for The City of Oklahoma City" dated May 3, 1982, with accompanying FIRM area to remain in effect until September 3, 2010 for applicable portions of The City of Oklahoma City within Pottawatomie County, Oklahoma.

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INTRODUCED and **CONSIDERED** in open meeting of the Council of the City of Oklahoma City this 2ND day of JANUARY, 2024.

PASSED by the Council of the City of Oklahoma City this _____ day of _____, 2024.

SIGNED by the Mayor of the City of Oklahoma City this _____ day of _____, 2024.

ATTEST: (Seal)

CITY CLERK

MAYOR

REVIEWED for form and legality.



Assistant Municipal Counselor