

ORDINANCE NO. 16,043

AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by amending Sections 50-26 and 50-34, relating to floodplain regulation.

Be It Ordained by the City Council of the City of Des Moines, Iowa:

Section 1. That the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, is hereby amended by amending Sections 50-26 and 50-34, relating to floodplain regulation, as follows:

*Lowest floor* means the floor of the lowest enclosed area in a building or factory-built home, including a basement, except that when the lowest enclosed area satisfies all of the criteria set forth in the following subsections, the lowest floor is the floor of the next highest enclosed area that does not satisfy such criteria:

- (1) The enclosed area is designed to flood to automatically equalize hydrostatic pressure from flood forces on exterior walls by allowing for the entry and exit of floodwaters through walls or openings which satisfy the requirements of subsection 50-34(4) of this article.
- (2) The enclosed area is unfinished (i.e., not carpeted, drywalled, etc.) and is used solely for low damage potential uses such as building access, parking or storage.
- (3) All machinery and service facilities contained in the enclosed area shall meet all applicable performance standards set forth in section 50-34.
- (4) The enclosed area is not a basement, as defined in this section.

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*Minimum flood protection elevation* means, for all floodplain areas except areas designated as AO zones on the flood insurance rate maps, the elevation of three feet above the 100-year flood elevation. The additional elevation above the 100-year flood elevation is also known as "freeboard". For all areas designated as AO zones on the rate maps, the minimum flood protection elevation shall be equal to the depth as specified on the rate map above the highest adjacent grade plus one foot, or, if no depth is specified, at least three feet above the highest adjacent grade.

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**Sec. 50-34. Performance standards.**

No structure or land shall hereafter be placed to a use and no structure shall be constructed, located, expanded, converted to a new use or structurally altered without full compliance with the terms of this chapter. All development within floodplain areas must be consistent with the need to minimize flood damage and shall meet the following applicable performance standards:

- (1) All structures and factory-built homes (whether or not placed in existing factory-built home parks or subdivisions) for which the start of construction commenced on or after February 4, 1981, or to which substantial improvements have been made on or after February 4, 1981, shall be:
  - a. Adequately anchored to prevent flotation, collapse or lateral movement of the structure during conditions of flooding. Anchorage systems may include, but are not limited to, use of over-the-top or frame tied ground anchors;
  - b. Constructed with materials and utility equipment resistant to flood damage;
  - c. Constructed by methods and practices minimizing flood damage; and
  - d. Unless otherwise provided in this section 50-34, constructed with (i) machinery and equipment serving the building, such as electric meter and panel box, water heater, and heating, air conditioning, and ventilation equipment (including ductwork), elevated or floodproofed equal to or above the minimum flood protection elevation; and (ii) service utilities such as plumbing, electric service, gas service, and water/gas meters designed and installed to be watertight and withstand inundation or elevated equal to or above the minimum flood protection elevation.
  - e. Reviewed to assure that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including, but not limited to and when applicable, the Iowa Department of Natural Resources for floodplain structure(s) and section 404 of the federal Water Pollution Control Act of 1972, 22 U.S.C. §1334.
- (2) All residential buildings and factory-built homes (whether or not placed in existing factory-built home parks or subdivisions) for which the start of construction commenced on or after February 4, 1981, or to which substantial improvements have been made on or after February 4, 1981, shall have the lowest floor, including basement, elevated equal to or above the minimum flood protection elevation. Machinery and equipment serving the building, such as electric meter and panel box, water heater, and heating, air conditioning and ventilation equipment (including ductwork), shall also be elevated equal to or above the minimum flood protection elevation, and service utilities such as plumbing, electric service, gas service, and water/gas meters must be designed and installed to be watertight and withstand inundation or elevated equal to or above the minimum flood protection elevation. Elevation shall be achieved by means of compacted fill or by such other methods, including piers, as the city engineer determines to be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.
- (3) All nonresidential buildings for which the start of construction commenced on or after February 4, 1981, or to which substantial improvements have been made on or after February 4, 1981, shall have the lowest floor, including basement, elevated equal to or above the minimum flood protection elevation or shall be floodproofed to the minimum flood protection elevation. Machinery and equipment serving the building, such as electric meter and panel box, water heater, and heating, air conditioning and ventilation equipment (including ductwork), shall also be elevated or floodproofed equal to or above the minimum flood protection elevation; and

service utilities such as plumbing, electric service, gas service, and water/gas meters must be designed and installed to be watertight and withstand inundation or elevated equal to or above the minimum flood protection elevation. When floodproofing is utilized, a professional engineer registered in the state shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 100-year flood and that the structure, below the minimum flood protection elevation, is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation, in relation to North American Vertical Datum, to which any buildings are floodproofed shall be maintained by the office of the building official.

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- (5) Utility and sanitary systems shall satisfy the following criteria:
- a. All new and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the system as well as the discharge of effluent into floodwaters. Wastewater treatment facilities shall be provided with a level of flood protection equal to or above the minimum flood protection elevation.
  - b. On-site waste disposal systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.
  - c. New or replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system. Water supply treatment facilities shall be provided with a level of protection equal to or above the minimum flood protection elevation.
  - d. Utilities such as gas and electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damaged or impaired systems.

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- (7) Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless stored indoors and elevated equal to or above the minimum flood protection elevation. Other material and equipment must either be:
- a. Similarly elevated;
  - b. Not subject to major flood damage and anchored to prevent movement due to floodwaters; or
  - c. Readily removable from the area within the time available after flood warning.

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- (10) Detached garages, sheds and similar accessory structures that are incidental to a single-family (single-household) or two-family (two-household) residential use are

exempt from the minimum flood protection elevation requirements, provided all of the following criteria are met:

- a. The structure shall not be used for human habitation, and shall be used solely for low flood damage potential purposes such as vehicle parking and limited storage.
- b. The structure shall be designed to have low flood damage potential. Those portions of the structures located below the minimum flood protection elevation must be constructed of flood-resistant materials as determined by the Federal Emergency Management Agency.
- c. The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
- d. The structure shall be firmly anchored to prevent flotation, collapse and lateral movement which may result in damage to other structures.
- e. The structure's service facilities such as electrical, heating, ventilation, plumbing, and air conditioning equipment shall be elevated or floodproofed to a level equal to or above the minimum flood protection elevation.
- f. The structure's walls shall include openings that satisfy the provisions of subsection (4) of this section.
- g. The owner of the structure must sign a non-conversion agreement whereby the owner agrees not to modify the enclosed area in any way that would make it more susceptible to flood damage. The agreement must contain a legal description sufficient to identify the property upon which the structure is located, and be recorded at the owner's expense with the applicable county recorder. The agreement shall allow the city the right to inspect the enclosed area at any time.

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(16) Any addition to a structure or factory-built home (whether or not placed in an existing factory-built home park or subdivision) constructed on or after February 4, 1981, which addition increases the original floor area of the applicable structure or factory-built home by any amount, shall comply with subsections (a) through (e) of subsection 1 of this section.

- a. Any addition constructed on or after February 4, 1981 to a residential building or factory-built home (whether or not placed in an existing factory-built home park or subdivision), which addition increases the original floor area of the applicable structure or factory-built home by any amount, shall have its lowest floor, including basement, elevated equal to or above the minimum flood protection elevation. Machinery and equipment serving the building, such as electric meter and panel box, water heater, and heating, air conditioning and ventilation equipment (including ductwork), shall also be elevated equal to or above the minimum flood protection elevation; and service utilities such as plumbing, electric service, gas service, and water/gas meters must be designed and installed to be watertight and withstand inundation or elevated equal to or above the minimum flood protection elevation. Elevation of the addition shall be achieved by means of compacted fill or by such other methods, including piers, as the city

engineer determines to be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.

- b. Any addition constructed on or after February 4, 1981 to a nonresidential building, which addition increases the original floor area of the applicable structure by any amount, shall have its lowest floor, including basement, elevated equal to or above the minimum flood protection elevation or shall be floodproofed to the minimum flood protection elevation. Machinery and equipment serving the building, such as electric meter and panel box, water heater, and heating, air conditioning and ventilation equipment (including ductwork), shall also be elevated or floodproofed equal to or above the minimum flood protection elevation; and service utilities such as plumbing, electric service, gas service, and water/gas meters must be designed and installed to be watertight and withstand inundation or elevated equal to or above the minimum flood protection elevation. When floodproofing is utilized, a professional engineer registered in the state shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 100-year flood and that the structure, below the minimum flood protection elevation, is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation, in relation to North American Vertical Datum, to which any additions are floodproofed shall be maintained by the office of the building official.

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Section 2. This ordinance shall be in full force and effect from and after its passage and publication as provided by law.

FORM APPROVED:

Glenna K. Frank, Assistant City Attorney

Attest: I, P. Kay Cmelik, City Clerk of the City of Des Moines, Iowa, hereby certify that the above and foregoing is a true copy of an Ordinance (Roll Call No. 21- 1379), passed by the City Council of said City at the meeting held on August 23, 2021 and signed by the Mayor on August 23, 2021 and published and provided by law in the Business Record on September 10, 2021. Authorized by Publication Order No. 11638.

P. Kay Cmelik, City Clerk