

LUCAS COUNTY BUILDING REGULATIONS
PART IX
FLOOD DAMAGE PREVENTION REGULATIONS
LUCAS COUNTY, OHIO

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SECTION 1.0: GENERAL PROVISIONS

1.1 Statutory Authorization

This resolution is adopted pursuant to authorization contained in Sections 307.37 and 307.85 of the Ohio Revised Code. This resolution adopts regulations for areas of special flood hazard that are necessary for participation in the National Flood Insurance Program. Therefore, the Board of County Commissioners of Lucas County, State of Ohio does resolve as follows:

1.2 Findings of Fact

Lucas County has special flood hazard areas that are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. Additionally, structures that are inadequately elevated, floodproofed, or otherwise protected from flood damage also contribute to the flood loss. In order to minimize the threat of such damages and to achieve the purposes hereinafter set forth, these regulations are adopted.

1.3 Statement of Purpose

It is the purpose of these regulations to promote the public health, safety and general welfare, and to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. Help maintain a stable tax base by providing for the proper use and development of areas of special flood hazard so as to protect property and minimize future flood blight areas;
- G. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions;
- H. Minimize the impact of development on adjacent properties within and near flood prone areas;
- I. Ensure that the flood storage and conveyance functions of the floodplain are maintained;
- J. Minimize the impact of development on the natural, beneficial values of the floodplain;
- K. Prevent floodplain uses that are either hazardous or environmentally incompatible; and
- L. Meet community participation requirements of the National Flood Insurance Program.

Adopted – December 12, 2023

Section 4.0: Use and Development Standards for Flood Hazard Reduction

Section 5.0: Appeals and Variances

Section 6.0: Enforcement Section

7.0: Adoption

Section 1.0: General Provisions

Section 2.0: Definitions Section

3.0: Administration

Base Flood

The flood having a one percent chance of being equaled or exceeded in any given year. The base flood may also be referred to as the 1% chance annual flood or one-hundred (100) year flood.

Base (100-Year) Flood Elevation (BFE)

The water surface elevation of the base flood in relation to a specified datum, usually the National Geodetic Datum of 1929 or the North American Vertical Datum of 1988 (NAVD 88), and usually expressed in Feet Mean Sea Level (MSL). In Zone AO areas, the base flood elevation is the lowest adjacent natural grade elevation plus the depth number (from 1 to 3 feet).

Basement

Any area of the building having its floor sub grade (below ground level) on all sides.

Breakaway wall

A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Coastal high hazard area

An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast, and any other area subject to high velocity wave action from storms or seismic sources. A coastal high hazard area is identified on a community's FIRM by the designation of zone VE.

Critical Development

Critical development is that which is critical to the community's public health and safety, is essential to the orderly functioning of a community, store or produce highly volatile, toxic or water-reactive materials, or house occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical development include jails, hospitals, schools, police stations, fire stations, nursing homes, assisted living facilities, wastewater treatment facilities, water plants, and gas/oil/propane storage facilities, and similar facilities as determined by the Floodplain Administrator.

Development

Any manmade change to improved or 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.

Enclosure Below the Lowest Floor

See "Lowest Floor."

Executive Order 11988 (Floodplain Management)

Issued by President Carter in 1977, this order requires that no federally assisted activities be conducted in or have the potential to affect identified special flood hazard areas, unless there is no practicable alternative.

Federal Emergency Management Agency (FEMA)

The agency with the overall responsibility for administering the National Flood Insurance Program.

Fill

A deposit of earth material placed by artificial means.

Flood or Flooding

A general and temporary condition of partial or complete inundation of normally dry land areas from:

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

Flood Hazard Boundary Map (FHBM)

Usually the initial map, produced by the Federal Emergency Management Agency, or U.S. Department of Housing and Urban Development, for a community depicting approximate special flood hazard areas.

Flood Insurance Rate Map (FIRM)

An official map on which the Federal Emergency Management Agency or the U.S. Department of Housing and Urban Development has delineated the areas of special flood hazard.

Flood Insurance Risk Zones

Zone designations on FHBMs and FIRMs that indicate the magnitude of the flood hazard in specific areas of a community. Following are the zone definitions

Zone A:

Special flood hazard areas inundated by the 100-year flood in any given year; base flood elevations are not determined.

Zones A1-30 and Zone AE:

Special flood hazard areas inundated by the 100-year flood in any given year; base flood elevations are determined.

Zone AO:

Special flood hazard areas inundated by the 100-year flood in any given year, with flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths are determined.

Zone AH:

Special flood hazard areas inundated by the 100-year flood in any given year; flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations are determined.

Zone A99:

Special flood hazard areas inundated by the 100-year flood to be protected from the 100-year flood by a Federal flood protection system under construction; no base flood elevations are determined.

Zone V:

Coastal special flood hazard area subject to a 100-year flood from velocity hazard (wave action); base flood elevations are not determined.

Zone VE and V1-30

Coastal special flood hazard area subject to a 100-year from velocity hazard (wave action); base flood elevations are determined.

Zone B and Zone X (shaded):

Areas of 500-year flood; areas subject to the 100-year flood with average depths of less than 1 foot or with contributing drainage area less than 1 square mile; and areas protected by levees from the base flood.

Zone C and Zone X (unshaded):

Areas determined to be outside the 500-year floodplain.

that is subdivided and the individual lots are not for rent or rented, but are for sale or sold for the purpose of installation of manufactured homes on the lots, is not a manufactured home park, even though three or more manufactured homes are parked thereon, if the roadways are dedicated to the local government authority. Manufactured home park does not include any tract of land used solely for the storage or display for sale of manufactured homes.

Mean sea level

For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

Moderate Wave Action Area (MoWA)

A special flood hazard area subject to the potential for breaking wave heights of greater than or equal to 1.5 feet, but less than 3 feet, where the primary source of flooding is storm surges, seiches. A MoWA is an area within zone AE on a FIRM that is between the inland limit of zone VE and a Limit of Moderate Wave Action, where identified. (Also known as "Coastal A Zone").

National Flood Insurance Program (NFIP)

The NFIP is a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. Participation in the NFIP is based on an agreement between local communities and the Federal government that states if a community will adopt and enforce floodplain management regulations to reduce future flood risks to all development in special flood hazard areas, the Federal government will make flood insurance available within the community as a financial protection against flood loss.

New construction

Structures for which the "start of construction" commenced on or after the effective date of a floodplain regulation adopted by Lucas County and includes any subsequent improvements to such structures.

For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM for Lucas County (March 16, 1983), and includes any subsequent improvements to such structures.

Person

Includes any individual or group of individuals, corporation, partnership, association, or any other entity, including state and local governments and agencies. An agency is further defined in the Ohio Revised Code Section 111.15(A)(2) as any governmental entity of the state and includes, but is not limited to, any board, department, division, commission, bureau, society, council, institution, state college or university, community college district, technical college district, or state community college. "Agency" does not include the general assembly, the controlling board, the adjutant general's department, or any court.

Recreational vehicle

A vehicle which is (1) built on a single chassis, (2) 400 square feet or less when measured at the largest horizontal projection, (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.

Registered Professional Architect

A person registered to engage in the practice of architecture pursuant to Section 4703.01 to 4703.19 of the Ohio Revised Code.

Registered Professional Engineer

A person registered as a professional engineer pursuant to Chapter 4733 of the Ohio Revised Code.

Registered Professional Surveyor

A person registered as a professional surveyor pursuant to Chapter 4733 of the Ohio Revised Code.

Riparian Setback

The area setback from each bank of a stream to protect the stream from impacts of development and streamside residents from impacts of flooding and land loss through erosion.

Special Flood Hazard Area

Also known as "Areas of Special Flood Hazard", it is the land in the floodplain subject to a one percent or greater chance of flooding in any given year. Special flood hazard areas are designated by the Federal Emergency Management Agency on Flood Insurance Rate Maps, Flood Insurance Studies, Flood Boundary and Floodway Maps and Flood Hazard Boundary Maps as Zones A, AE, AH, AO, A1-30, and A99 or V and VE. Special flood hazard areas may also refer to areas that are flood prone and designated from other federal state or local sources of data including but not limited to historical flood information reflecting high water marks, previous flood inundation areas, and flood prone soils associated with a watercourse.

Start of construction

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 a 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 a building.

Structure

A walled and roofed building, manufactured home, or gas or liquid storage tank that is principally above ground.

Substantial Damage

Damage of any origin sustained by a structure whereby the cost of restoring the structure to the 'before damaged' condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Substantial damage also means flood related damage sustained by a structure on two (2) separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

5. A hydrologic and hydraulic engineering analysis showing impact of any development on flood heights in an identified floodway as required by Section 4.9(A).
6. Generation of base flood elevation(s) for subdivision and other new developments as required by Section 4.3.
7. Generation of the 500-year flood elevation for critical development as required by Section 4.10.
8. Certification of structural design and methods of construction for VE zone construction as required by Section 4.10(A).
9. Certification of breakaway wall design, when applicable, as provided in Section 4.10(B).

F. The Floodplain Development Permit Application Fee as adopted by the Board of Lucas County Commissioners as shown on the Lucas County Engineer's Fee Schedule.

3.5 Review and Approval of a Floodplain Development Permit Application

A. Review

1. After receipt of a complete application, the Floodplain Administrator shall review the application to ensure that the standards of these regulations have been met. No floodplain development permit application shall be reviewed until all information required in Section 3.4 has been received by the Floodplain Administrator.
2. The Floodplain Administrator shall review all floodplain development permit applications to assure that all necessary permits have been received from those federal, state, or local government agencies from which prior approval is required. The applicant shall be responsible for obtaining such permits as required including permits issued by the U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, and the Ohio Environmental Protection Agency under Section 401 of the Clean Water Act.

B. Approval

Within thirty (30) days after the receipt of a complete application, the Floodplain Administrator shall either approve or disapprove the application. If an application is approved, a floodplain development permit shall be issued. If the Floodplain Administrator is satisfied that the development proposed in the floodplain development application conforms to the requirements of this ordinance, the Floodplain Administrator shall issue the permit. All floodplain development permits shall be conditional upon the commencement of work within 180 days. A floodplain development permit shall expire 180 days after issuance unless the permitted activity has been substantially begun and is thereafter pursued to completion.

3.6

Inspections

The Floodplain Administrator shall make periodic inspections at appropriate times throughout the period of construction in order to monitor compliance with permit conditions.

3.7

Post-Construction Certifications Required

The following as-built certifications are required after a floodplain development permit has been issued:

- A. For new or substantially improved residential structures, or nonresidential structures that have been elevated, the applicant shall have a *Federal Emergency Management Agency Elevation Certificate* completed by a registered professional surveyor to record as-built elevation data.
- B. For all development activities subject to the standards of Section 3.11(A), a Letter of Map Revision.
- C. For new or substantially improved nonresidential structures that have been floodproofed in lieu of elevation, where allowed, the applicant shall supply a completed Floodproofing Certificate for Non-Residential Structures completed by a registered professional engineer or architect together with associated documentation

3.8 Revoking a Floodplain Development Permit

A floodplain development permit shall be revocable, if among other things, the actual development activity does not conform to the terms of the application and permit granted thereon. In the event of the revocation of a permit, an appeal may be taken to the Variance and Appeals Board in accordance with Section 5 of these regulations.

3.9

Exemption from Filing a Development Permit

An application for a floodplain development permit shall not be required for maintenance work such as roofing, painting, and basement sealing, or for small nonstructural development activities (except for filling and grading) valued at less than \$2,500.

3.10

State and Federal Development

- A. Development that is funded, financed, undertaken, or preempted by state agencies shall comply with minimum NFIP criteria.
- B. Before awarding funding or financing or granting a license, permit, or other authorization for a development that is or is to be located within a 100-year floodplain, a state agency shall require the applicant to demonstrate to the satisfaction of the agency that the development will comply with minimum NFIP criteria and any applicable local floodplain management resolution or ordinance as required by Ohio Revised Code Section 1521.13. This includes, but is not limited to:
 1. Development activities in an existing or proposed manufactured home park that are under the authority of the Ohio Department of Commerce and subject to the flood damage reduction provisions of the Ohio Administrative Code Section 4781-12.
 2. Major utility facilities permitted by the Ohio Power Siting Board under Section 4906 of the Ohio Revised Code.
 3. Hazardous waste disposal facilities permitted by the Hazardous Waste Siting Board under Section 3734 of the Ohio Revised Code.
- C. Development activities undertaken by a federal agency and which are subject to Federal Executive Order 11988 – Floodplain Management.
 1. Each federal agency has a responsibility to evaluate the potential effects of any actions it may take in a floodplain; to ensure that its planning programs and budget request reflect consideration of flood hazards and floodplain management; and to prescribe procedures to implement the policies and requirements of EO 11988.

3.11 Map Maintenance Activities

To meet National Flood Insurance Program minimum requirements to have flood data reviewed and approved by FEMA, and to ensure that Lucas County's flood maps, studies and other data identified in Section 1.6 accurately represent flooding conditions so

C. Zones B, C, and X:

1. Use of BFE and floodway data from a preliminary FIRM or FIS are not required for areas designated as Zone B, C, or X on the effective FIRM which are being revised to Zone AE, A1-30, AH, AO, VE, or V1-30. Communities are encouraged to reasonably utilize preliminary FIS or FIRM data to ensure that the health, safety, and property of their citizens are protected.

3.14 Substantial Damage Determinations

Damages to structures may result from a variety of causes including flood, tornado, wind, heavy snow, fire, etc. After such a damage event, the Floodplain Administrator shall:

- A. Determine whether damaged structures are located in special flood hazard areas;
- B. Conduct substantial damage determinations for damaged structures located in special flood hazard areas; and
- C. Require owners of substantially damaged structures to obtain a floodplain development permit prior to repair, rehabilitation, or reconstruction.

Additionally, the Floodplain Administrator may implement other measures to assist with the substantial damage determination and subsequent repair process. These measures include issuing press releases, public service announcements, and other public information materials related to the floodplain development permits and repair of damaged structures; coordinating with other federal, state, and local agencies to assist with substantial damage determinations; providing owners of damaged structures materials and other information related to the proper repair of damaged structures in special flood hazard areas; and assist owners of substantially damaged structures with Increased Cost of Compliance insurance claims.

SECTION 4.0: USE AND DEVELOPMENT STANDARDS FOR FLOOD HAZARD REDUCTION

The following use and development standards apply to development wholly within, partially within, or in contact with any special flood hazard area as established in Section 1.6 or 3.12(A), or 3.13:

4.1 Use Regulations

A. Permitted Uses

All uses not otherwise prohibited in this section or any other applicable land use regulation adopted by Lucas County are allowed provided they meet the provisions of these regulations.

B. Prohibited Uses

1. Infectious waste treatment facilities in all special flood hazard areas, permitted under Section 3734 of the Ohio Revised Code.
2. New construction of any residential or nonresidential structures in floodway areas.
3. Storage or processing of hazardous, flammable, or explosive materials in special flood hazard areas.
4. Storage of material or equipment that, in time of flooding, could become buoyant and pose an obstruction to flow in identified floodway areas.
5. Critical development in special flood hazard areas.

4.2 Water and Wastewater Systems

The following standards apply to all water supply, sanitary sewerage and waste disposal systems in the absence of any more restrictive standard provided under the Ohio Revised Code or applicable state rules:

- A. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems.
- B. New and replacement sanitary sewerage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.
- C. On-site waste disposal systems shall be located to avoid impairment to or contamination from them during flooding.

4.3 Subdivisions and Other New Developments

- A. All subdivision proposals and all other proposed new development shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations;
- B. All subdivision proposals and all other proposed new development shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
- C. All subdivision proposals and all other proposed new development shall have adequate drainage provided to reduce exposure to flood damage; and
- D. In all areas of special flood hazard where base flood elevation data are not available, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations for all subdivision proposals and other proposed developments containing at least 50 lots or 5 acres, whichever is less.
- E. The applicant shall meet the requirement to submit technical data to FEMA in Section 3.10(A)(1)(d) when a hydrologic and hydraulic analysis is completed that generates base flood elevations as required by Section 4.3(D).
- F. All preliminary plans for planned subdivisions shall identify the flood hazard area and the elevation of the base flood.
- G. All final subdivision plats shall provide the boundary of the special flood hazard area, the floodway boundary, and the base flood elevations.
- H. In planned subdivisions, all proposed lots or parcels that will be future building sites shall have a minimum buildable area at least 12 inches above the 1% chance annual floodplain. The buildable area shall be large enough to accommodate any primary structure and associated structures such as sheds, barns, swimming pools, detached garages, on-site sewage disposal systems, and water supply wells, if applicable.
- I. Approval shall not be given for streets within a subdivision which would be subject to flooding. All street surfaces must be located at or above the base flood elevation

4.4 Residential Structures

The requirements of Section 4.4 apply to new construction of residential structures and to substantial improvements of residential structures in zones A, A1-30, AE, AO, and AH, when designated on the community's effective FIRM, and when designated on a preliminary or final FIRM issued by FEMA under the circumstances provided in Section 3.13.

- A. New construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Where a structure, including its foundation members, is elevated on fill to or above the base flood elevation, the

B. In zones V or VE, new or substantially improved above ground gas or liquid storage tanks shall be elevated with the bottom of the lowest horizontal supporting member above BFE on the landward side of buildings.

C. In zones V or VE, new or substantially improved underground gas or liquid storage tanks must be installed below the lowest eroded ground elevation.

4.9

Assurance of Flood Carrying Capacity

Pursuant to the purpose and methods of reducing flood damage stated in these regulations, the following additional standards are adopted to assure that the reduction of the flood carrying capacity of watercourses is minimized:

A. Development in Floodways

1. In floodway areas, development shall cause no increase in flood levels during the occurrence of the base flood discharge. Prior to issuance of a floodplain development permit, the applicant must submit a hydrologic and hydraulic analysis, conducted by a registered professional engineer, demonstrating that the proposed development would not result in any increase in the base flood elevation; or
2. Development in floodway areas causing increases in the base flood elevation may be permitted provided all of the following are completed by the applicant:
 - a. Meet the requirements to submit technical data in Section 3.10(A);
 - b. An evaluation of alternatives, which would not result in increased base flood elevations and an explanation why these alternatives are not feasible;
 - c. Certification that no structures are located in areas that would be impacted by the increased base flood elevation;
 - d. Documentation of individual legal notices to all impacted property owners within and outside the community, explaining the impact of the proposed action on their property; and
 - e. Concurrence of the President of the Board of County Commissioners of Lucas County and the Chief Executive Officer of any other communities impacted by the proposed actions.

B. Development in Riverine Areas with Base Flood Elevations but No Floodways

1. In riverine special flood hazard areas identified by FEMA where base flood elevation data are provided but no floodways have been designated, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the base flood elevation more than one (1.0) foot at any point. Prior to the issuance of a floodplain development permit, the applicant must submit a hydrologic and hydraulic analysis, conducted by a registered professional engineer, demonstrating that this standard has been met; or
2. Development in riverine special flood hazard areas identified by FEMA where base flood elevation data are provided but no floodways have been designated causing more than one foot increase in the base flood elevation may be permitted provided all of the following are completed by the applicant:
 - a. An evaluation of alternatives which would result in an increase of one foot or less of the base flood elevation and an explanation why these alternatives are not feasible;
 - b. Section 4.9(A)(2), items (a) and (c)-(e).

C. Alterations of a Watercourse

For the purpose of these regulations, a watercourse is altered when any change occurs within its banks. The extent of the banks shall be established by a field determination of the "bankfull stage." The field determination of "bankfull stage" shall be based on methods presented in Chapter 7 of the *USDA Forest Service General Technical*

Report RM-245, Stream Channel Reference Sites: An Illustrated Guide to Field Technique or other applicable publication available from a Federal, State, or other authoritative source. For all proposed developments that alter a watercourse, the following standards apply:

1. The bankfull flood carrying capacity of the altered or relocated portion of the watercourse shall not be diminished. Prior to the issuance of a floodplain development permit, the applicant must submit a description of the extent to which any watercourse will be altered or relocated as a result of the proposed development, and certification by a registered professional engineer that the bankfull flood carrying capacity of the watercourse will not be diminished.
2. Adjacent communities, the U.S. Army Corps of Engineers, and the Ohio Department of Natural Resources, Division of Water Resources, must be notified prior to any alteration or relocation of a watercourse. Evidence of such notification must be submitted to the Federal Emergency Management Agency.
3. The applicant shall be responsible for providing the necessary maintenance for the altered or relocated portion of said watercourse so that the flood carrying capacity will not be diminished. The Floodplain Administrator may require the permit holder to enter into an agreement with Lucas County specifying the maintenance responsibilities. If an agreement is required, it shall be made a condition of the floodplain development permit.
4. The applicant shall meet the requirements to submit technical data in Section 3.11(A)(1)(c) when an alteration of a watercourse results in the relocation or elimination of the special flood hazard area, including the placement of culverts.

4.10 Development standards for coastal high hazard areas and MoWA areas

The requirements of Section 4.10 apply to development in coastal high hazard areas designated zone V or VE on the community's effective FIRM and when designated on a preliminary or final FIRM issued by FEMA under the circumstances provided in Section 3.13. The requirements of Section 4.10 also apply to development in Moderate Wave Action areas, within zone AE between a Limit of Moderate Wave Action and the landward limit of zone V or VE designated on the community's effective FIRM, or between a Limit of Moderate Wave Action and the offshore limit of the community's jurisdiction where zone V or VE is not designated on the community's effective FIRM.

A. All new construction and substantial improvements shall be elevated on pilings or columns that may be armored as necessary to withstand Lake Erie ice forces so that:

1. The bottom of the lowest horizontal structural member supporting the lowest floor (excluding the pilings or columns) is elevated to or above the flood protection elevation; and
2. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.
 - a. Water loading values shall be those associated with the base flood.

- b. Wind loading values shall be those defined according to American Society of Civil Engineers 7-13 *Minimum design loads and associated criteria for buildings and other structures*, or current version adopted by Ohio Board of Building Standards.
- c. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of Section 4.10(A)(1) and (2).

B. All new construction and substantial improvements shall have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

1. For the purpose of Section 4.10(B), a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot.
2. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or where so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet all of the following conditions:
 - a. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
 - b. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values shall be those associated with the base flood. Wind loading values shall be those defined according to American Society of Civil Engineers 7-16 *Minimum design loads and associated criteria for buildings and other structures*, or equivalent standard.
3. All space enclosed by breakaway walls, open wood lattice-work, or insect screening below the lowest floor shall be used solely for parking of vehicles, building access, or storage.

C. The use of fill or redistributed existing fill, placed after the initial identification of Zones V, VE or V1-30 on the community's FIRM, for structural support of buildings is prohibited.

D. Alteration of sand dunes that will increase potential flood damage is prohibited.

E. Placement or substantial improvement of manufactured homes must comply with Section 4.10(A) through (E).

F. Recreational vehicles must either:

1. Be on site for fewer than 180 consecutive days;
2. Be fully licensed and ready for highway use; or
3. Comply with Section 4.10(A) through (E).

4.11 Critical Development

Critical Developments shall be elevated to 12 inches above the 500-year flood elevation or be elevated to the highest known historical flood elevation (where records are available), whichever is greater. If no data exists, establishing the 500-year flood elevation or the highest known historical flood elevation, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates 500-year flood elevation data.

4.12 Fill

The following standards shall apply to all fill activities in zones A, A1-A30, AE, AO, or AH:

- A. Fill sites, upon which structures will be constructed or placed, must be compacted to 95 percent of the maximum density obtainable with a Standard Proctor Test method or an acceptable equivalent method.
- B. Fill slopes shall not be steeper than one foot vertical to two feet horizontal.
- C. Adequate protection against erosion and scour must be provided for fill slopes. When expected velocities during the base flood are five feet per second or greater armoring with stone or rock protection shall be provided. When expected velocities during the base flood are less than five feet per second protection shall be provided to fill slopes by covering them with vegetative cover.
- D. Fill shall be composed of clean granular or earthen material.
- E. Fill shall not be placed in the designated floodway.
- F. Fill shall not be placed in wetland areas.
- G. Fill sites, upon which structures will be constructed or placed, shall have a minimum buildable area at least 12 inches above the 1% chance annual floodplain. The buildable area shall be large enough to accommodate any primary structure and associated structures such as sheds, barns, swimming pools, detached garages, on-site sewage disposal systems, and water supply wells, if applicable.
- H. The owner of a property is solely responsible for any drainage problems caused.
- I. Land that has fill placed on it shall not be issued any building permits until a copy of the approved LOMR-F is on file.

4.13 Materials Storage

Storage of materials or equipment not otherwise prohibited in Section 4.1(B) shall be firmly anchored to prevent flotation.

4.14 Riparian Setbacks

Floodplains perform crucial roles in preventing flooding by storing runoff water, and benefiting water quality by providing riparian habitat. It is the intent of these standards to establish riparian setbacks that will protect floodplains. Therefore, riparian setbacks shall be measured outward from the ordinary high water mark on each side of a stream, except as follows.

Exceptions

Where the 100-year floodway is wider than the riparian setback on either side or both sides of the stream, the riparian setback shall be extended to the outer edge of the 100-year floodway.

In cases where the required setback cannot be met because the depth of the parcel would render it unbuildable, then a reduction in the setback could be granted by the Floodplain Administrator.

- c) Non-residential structure or use expansions will be permitted only through the variance process of the local reviewing agency.

SECTION 5.0: APPEALS AND VARIANCES

5.1 Variance and Appeals Board Established

A. The Board of Lucas County Commissioners shall appoint a Stormwater Board of Appeals (Appeals Board) consisting of three members and one alternate member in the event a regular member is unable to serve who shall be residents of Lucas County, Ohio. One member shall be a Professional Engineer with expertise in hydraulics and hydrology and/or floodplain management, one member shall be a professional with expertise in soil erosion and sedimentation control best practices, design, and operation. The alternate member shall be a professional who can serve in either of the above roles. The members shall serve three-year terms after which time they shall be reappointed or replaced by the Board of Lucas County Commissioners. Each member shall serve until his/her successor is appointed.

B. A chairperson shall be elected by the members of the Appeals Board. Meetings of the Appeals Board shall be held as needed and shall be held at the call of the Chairperson, or in their absence, the Acting Chairperson. All meetings of the Appeals Board shall be open to the public except that the Board may deliberate in executive sessions as part of quasi-judicial hearings in accordance with law. The Appeals Board shall keep minutes of its proceedings showing the vote of each member upon each question and shall keep records of all official actions. Records of the Appeals Board shall be kept and filed with the Clerk of the Board of Lucas County Commissioners, One Government Center, Suite 800, Toledo, OH 43604.

5.2 Powers and Duties

- A. The Board shall hear and decide appeals where it is alleged there is an error in any order, requirement, decision or determination made by the Floodplain Administrator in the administration or enforcement of these regulations.
- B. Authorize variances in accordance with Section 5.4 of these regulations.

5.3 Appeals

Any person affected by any notice and order, or other official action of the Floodplain Administrator may request and shall be granted a hearing on the matter before the Board provided that such person shall file, within 30 days of the date of such notice and order, or other official action, a brief statement of the grounds for such hearing or for the mitigation of any item appearing on any order of the Floodplain Administrator's decision. Such appeal shall be in writing, signed by the applicant, and be filed with the Floodplain Administrator. Upon receipt of the appeal, the Floodplain Administrator shall transmit said notice and all pertinent information on which the Floodplain Administrator's decision was made to the Appeals Board.

Upon filing an appeal request with the Appeals Board, the Appeals Board shall set a date for the appeal within a reasonable amount of time, give notice in writing to parties of interest, and shall arrive at a decision within a reasonable time after it is submitted.

5.4

Variances

Any person believing that the use and development standards of these regulations would result in unnecessary hardship may file an application for a variance. The Board shall have the power to authorize, in specific cases, such variances from the standards of these regulations, not inconsistent with Federal regulations, as will not be contrary to the public interest where, owing to special conditions of the lot or parcel, a literal enforcement of the provisions of these regulations would result in unnecessary hardship.

A. Application for a Variance

1. Any owner, or agent thereof, of property for which a variance is sought shall make an application for a variance by filing it with the Floodplain Administrator, who upon receipt of the variance shall transmit it to the Board.
2. Such application at a minimum shall contain the following information: Name, address, and telephone number of the applicant; legal description of the property; parcel map; description of the existing use; description of the proposed use; location of the floodplain; description of the variance sought; and reason for the variance request.
3. All applications for a variance shall be accompanied by a variance application fee as adopted by the Board of Lucas County Commissioners and listed in the Lucas County Engineer Fee Schedule.

B. Public Hearing

At such hearing the applicant shall present such statements and evidence as the Board requires. In considering such variance applications, the Board shall consider and make findings of fact on all evaluations, all relevant factors, standards specified in other sections of these regulations and the following factors:

1. The danger that materials may be swept onto other lands to the injury of others.
2. The danger to life and property due to flooding or erosion damage.
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
4. The importance of the services provided by the proposed facility to the community.
5. The availability of alternative locations for the proposed use that are not subject to flooding or erosion damage.
6. The necessity to the facility of a waterfront location, where applicable.
7. The compatibility of the proposed use with existing and anticipated development.
8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area.
9. The safety of access to the property in times of flood for ordinary and emergency vehicles.
10. 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.
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

case as provided, or imprisoned as provided by the laws of Lucas County. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent Lucas County from taking such other lawful action as is necessary to prevent or remedy any violation. Lucas County shall prosecute any violation of these regulations in accordance with the penalties stated herein.

SECTION 7.0: ADOPTION

In accordance with O.R.C. §307.37 (2) public hearings were held on Tuesday December 5, 2023 and Tuesday December 12, 2023 at regular meetings of the Board of Lucas County Commissioners.

Resolution xx-xxx adopted by the Board of Lucas County Commissioners on December 12, 2023, shall take effect January 12, 2024.