

## **TITLE NINE – Flood Damage Prevention**

<b>Chapter 1391.</b>	<b>General Provisions and Definitions</b>
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### **CHAPTER 1391 GENERAL PROVISIONS**

#### **1391.01 Statutory Authorization**

(A) ARTICLE XVIII, Section 3, of the Ohio Constitution grants municipalities the legal authority to adopt land use and control measures for promoting the health, safety, and general welfare of its citizens. Therefore, the City Council of Berea, State of Ohio, does ordain as follows:

(i) **Findings of Fact**

The City of Berea 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.

(ii) **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.

### **1391.02 Methods of Reducing Flood Loss**

In order to accomplish its purposes, these regulations include methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water hazards, or which result in damaging increases in flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities, which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, excavating, and other development which may increase flood damage; and,
- E. Preventing or regulating the construction of flood barriers, which will unnaturally divert flood, waters or which may increase flood hazards in other areas.

### **1391.03 Lands to Which These Regulations Apply**

These regulations shall apply to all areas of special flood hazard within the jurisdiction of the City of Berea as identified in Section 1.6, including any additional areas of special flood hazard annexed by City of Berea.

### **1391.04 Basis for Establishing the Areas of Special Flood Hazard**

For the purposes of these regulations, the following studies and / or maps are adopted:

- A. *Flood Insurance Study Cuyahoga County, Ohio and Incorporated Areas and Flood Insurance Rate Map Cuyahoga County, Ohio and Incorporated Areas* both effective December 3, 2010.
- B. Other studies and / or maps, which may be relied upon for establishment of the flood protection elevation, delineation of the 100-year floodplain, floodways or delineation of other areas of special flood hazard.

- C. Any hydrologic and hydraulic engineering analysis authored by a registered Professional Engineer in the State of Ohio which has been approved by the City of Berea as required by Section 1395.01.3 Subdivisions and Large Scale Developments.

Any revisions to the aforementioned maps and / or studies are hereby adopted by reference and declared to be a part of these regulations. Such maps and/or studies are on file at the City Hall at 11 Berea Commons, Berea, Ohio.

#### **1391.05 Abrogation and Greater Restrictions**

These regulations are not intended to repeal any existing ordinances including subdivision regulations, zoning or building codes. In the event of a conflict between these regulations and any other ordinance, the more restrictive shall be followed. These regulations shall not impair any deed restriction covenant or easement but the land subject to such interests shall also be governed by the regulations.

#### **1391.06 Interpretation**

In the interpretation and application of these regulations, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under state statutes. Where a provision of these regulations may be in conflict with a state or Federal law, such state or Federal law shall take precedence over these regulations.

#### **1391.07 Warning and Disclaimer of Liability**

The degree of flood protection required by these regulations is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. These regulations do not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damage. These regulations shall not create liability on the part of the City of Berea, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damage that results from reliance on these regulations or any administrative decision lawfully made thereunder.

#### **1391.08 Severability**

Should any section or provision of these regulations be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the regulations as a whole, or any part thereof other than the part so declared to be unconstitutional or invalid.

## **1391.10 DEFINITIONS**

(A) Unless specifically defined below, words or phrases used in these regulations shall be interpreted so as to give them the meaning they have in common usage and to give these regulations the most reasonable application.

**1. Accessory Structure**

A structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal structure.

**2. Appeal**

A request for review of the floodplain administrator's interpretation of any provision of these regulations or a request for a variance.

**3. 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.

**4. Base (100-Year) Flood Elevation (BFE)**

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

**5. Basement**

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

**6. 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.

**7. Enclosure Below the Lowest Floor**

See "Lowest Floor."

**8. 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.

**9. Federal Emergency Management Agency (FEMA)**

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

**10. Fill**

A deposit of earth material placed by artificial means.

**11. Flood or Flooding**

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

- (a) The overflow of inland or tidal waters, and/or
- (b) The unusual and rapid accumulation or runoff of surface waters from any source.

**12. 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.

**13. 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.

**14. 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; base flood elevations are not determined.

Zones A1-30 and Zone AE:

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

Zone AO:

Special flood hazard areas inundated by the 100-year flood; 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; 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 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.

**15. Flood Insurance Study (FIS)**

The official report in which the Federal Emergency Management Agency or the U.S. Department of Housing and Urban Development has provided flood profiles, floodway boundaries (sometimes shown on Flood Boundary and Floodway Maps), and the water surface elevations of the base flood.

**16. Flood Protection Elevation**

The Flood Protection Elevation, or FPE, is the base flood elevation. In areas where no base flood elevations exist from any authoritative source, the flood protection elevation can be historical flood elevations, or base flood elevations determined and/or approved by the floodplain administrator.

**17. Floodway**

A floodway is the channel of a river or other watercourse and the adjacent land areas that have been reserved in order to pass the base flood discharge. A floodway is typically determined through a hydraulic and hydrologic engineering analysis such that the cumulative increase in the water surface elevation of the base flood discharge is no more than a designated height. In no case shall the designated height be more than one foot at any point within the community.

The floodway is an extremely hazardous area, and is usually characterized by any of the following: Moderate to high velocity flood waters, high potential for debris and projectile impacts, and moderate to high erosion forces.

**18. Freeboard**

A factor of safety usually expressed in feet above a flood level for the purposes of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, obstructed bridge openings, debris and ice jams, and the hydrologic effect of urbanization in a watershed.

**19. Historic structure**

Any structure that is:

- a.. Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listings on the National Register;
- b. 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; or

- c. Individually listed on the State of Ohio's inventory of historic places maintained by the Ohio Historic Preservation Office.

**20. Hydrologic and hydraulic engineering analysis**

An analysis performed by a professional engineer, registered in the State of Ohio, in accordance with standard engineering practices as accepted by FEMA, used to determine flood elevations and/or floodway boundaries.

**21. Letter of Map Change (LOMC)**

A Letter of Map Change is an official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps, Flood Boundary and Floodway Maps, and Flood Insurance Studies. LOMCs are broken down into the following categories:

Letter of Map Amendment (LOMA)

A revision based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property is not located in a special flood hazard area.

Letter of Map Revision (LOMR)

A revision based on technical data that, usually due to manmade changes, shows changes to flood zones, flood elevations, floodplain and floodway delineations, and planimetric features. One common type of LOMR, a LOMR-F, is a determination concerning whether a structure or parcel has been elevated by fill above the base flood elevation and is, therefore, excluded from the special flood hazard area.

Conditional Letter of Map Revision (CLOMR)

A formal review and comment by FEMA as to whether a proposed project complies with the minimum National Flood Insurance Program floodplain management criteria. A CLOMR does not amend or revise effective Flood Insurance Rate Maps, Flood Boundary and Floodway Maps, or Flood Insurance Studies.

**22. Lowest floor**

The lowest floor of the lowest enclosed area (including basement) of a structure. This definition excludes an "enclosure below the lowest floor" which is an unfinished or flood resistant enclosure usable solely for parking of vehicles, building access or storage, in an area other than a basement area, provided that such enclosure is built in accordance with the applicable design requirements specified in these regulations for enclosures below the lowest floor.

**23. Manufactured home**

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". For the purposes of these regulations, a manufactured home includes

manufactured homes and mobile homes as defined in Chapter 3733 of the Ohio Revised Code.

**24. Manufactured home park**

As specified in the Ohio Administrative Code 3701-27-01, a manufactured home park means any tract of land upon which three or more manufactured homes, used for habitation are parked, either free of charge or for revenue purposes, and includes any roadway, building, structure, vehicle, or enclosure used or intended for use as part of the facilities of the park. A tract of land 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.

**25. 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.

**26. New construction**

Structures for which the "start of construction" commenced on or after the initial effective date of the City of Berea Flood Insurance Rate Map, June 1, 1979, and includes any subsequent improvements to such structures.

**27. 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 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.

**28. 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.

**29. Registered Professional Architect**



A person registered to engage in the practice of architecture under the provisions of sections 4703.01 to 4703.19 of the Revised Code.

**30. Registered Professional Engineer**

A person registered as a professional engineer under Chapter 4733 of the Revised Code.

**31. Registered Professional Surveyor**

A person registered as a professional surveyor under Chapter 4733 of the Revised Code.

**32. 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. 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.

**33. 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.

**34. Structure**

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

**35. Substantial Damage**

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.

**36. Substantial Improvement**

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 the "start of construction" of the improvement. This term includes structures, which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include:

- a. Any improvement to a structure that is considered "new construction,"
- b. 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 prior to the application for a development permit by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- c. Any alteration of a "historic structure," provided that the alteration would not preclude the structure's continued designation as a "historic structure".

**37. Variance**

A grant of relief from the standards of these regulations consistent with the variance conditions herein.

**38. Violation**

The failure of a structure or other development to be fully compliant with these regulations.

**CHAPTER 1393: ADMINISTRATION**

**1393.01 Designation of the Floodplain Administrator**

The Director of Public Service is hereby appointed to administer and implement these regulations and is referred to herein as the Floodplain Administrator.

**1391.02 Duties and Responsibilities of the Floodplain Administrator**

The duties and responsibilities of the Floodplain Administrator shall include but are not limited to:

- A. Evaluate applications for permits to develop in special flood hazard areas.
- B. Interpret floodplain boundaries and provide flood hazard and flood protection elevation information.
- C. Issue permits to develop in special flood hazard areas when the provisions of these regulations have been met, or refuse to issue the same in the event of noncompliance.
- D. Inspect buildings and lands to determine whether any violations of these regulations have been committed.
- E. Make and permanently keep all records for public inspection necessary for the administration of these regulations including Flood Insurance Rate Maps, Letters of Map Amendment and Revision, records of issuance and denial of permits to develop in special flood hazard areas, determinations of whether

development is in or out of special flood hazard areas for the purpose of issuing floodplain development permits, elevation certificates, variances, and records of enforcement actions taken for violations of these regulations.

- F. Enforce the provisions of these regulations.
- G. Provide information, testimony, or other evidence as needed during variance hearings.
- H. Coordinate map maintenance activities and FEMA follow-up.
- I. Conduct substantial damage determinations to determine whether existing structures, damaged from any source and in special flood hazard areas identified by FEMA, must meet the development standards of these regulations.

### **1393.03 Floodplain Development Permits**

It shall be unlawful for any person to begin construction or other development activity including but not limited to filling; grading; construction; alteration, remodeling, or expanding any structure; or alteration of any watercourse wholly within, partially within or in contact with any identified special flood hazard area, as established in Section 1391.04, until a floodplain development permit is obtained from the Floodplain Administrator. Such floodplain development permit shall show that the proposed development activity is in conformity with the provisions of these regulations. No such permit shall be issued by the Floodplain Administrator until the requirements of these regulations have been met.

### **1393.04 Application Required**

An application for a floodplain development permit shall be required for all development activities located wholly within, partially within, or in contact with an identified special flood hazard area. Such application shall be made by the owner of the property or his/her authorized agent, herein referred to as the applicant, prior to the actual commencement of such construction on a form furnished for that purpose. Where it is unclear whether a development site is in a special flood hazard area, the Floodplain Administrator may require an application for a floodplain development permit to determine the development's location. Such applications shall include, but not be limited to:

- A. Site plans drawn to scale showing the nature, location, dimensions, and topography of the area in question; the location of existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing.
- B. Elevation of the existing, natural ground where structures are proposed.
- C. Elevation of the lowest floor, including basement, of all proposed structures.
- D. Such other material and information as may be requested by the Floodplain Administrator to determine conformance with, and provide enforcement of these regulations.
- E. Technical analyses conducted by the appropriate design professional registered in the State of Ohio and submitted with an application for a floodplain development permit when applicable:

1. Floodproofing certification for non-residential floodproofed structure as required in Section 1395.01.5.
  2. Certification that fully enclosed areas below the lowest floor of a structure not meeting the design requirements of Section 1395.01.4(E) are designed to automatically equalize hydrostatic flood forces.
  3. Description of any watercourse alteration or relocation that the flood carrying capacity of the watercourse will not be diminished, and maintenance assurances as required in Section 1395.01.9(C).
  4. A hydrologic and hydraulic analysis demonstrating that the cumulative effect of proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood by more than one foot in special flood hazard areas where the Federal Emergency Management Agency has provided base flood elevations but no floodway as required by Section 1395.01.9(B).
  5. A hydrologic and hydraulic engineering analysis showing impact of any development on flood heights in an identified floodway as required by Section 1395.01.9(A).
  6. Generation of base flood elevation(s) for subdivision and large-scale developments as required by Section 1395.01.3.
- F. A floodplain development permit application fee set by the schedule of fees adopted by the City of Berea.

### **1393.05 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 1393.04 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 governmental 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.

All floodplain development permits shall be conditional upon the commencement of work within one (1) year. A floodplain development permit shall expire one (1) year after issuance unless the permitted activity has been substantially begun and is thereafter pursued to completion.

#### **1393.06 Inspections**

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

#### **1393.07 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 surveyor to record as-built elevation data. For elevated structures in Zone A and Zone AO areas without a base flood elevation, the elevation certificate may be completed by the property owner or owner's representative.
- B. For all development activities subject to the standards of Section 1393.10(A), a Letter of Map Revision.

#### **1393.08 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 Appeals Board in accordance with Section 1397 of these regulations.

#### **1393.09 Exemption from Filing a Development Permit**

An application for a floodplain development permit shall not be required for:

- A. Maintenance work such as roofing, painting, and basement sealing, or for small nonstructural development activities (except for filling and grading) valued at less than \$5,000.
- B. Development activities in an existing or proposed manufactured home park that are under the authority of the Ohio Department of Health and subject to the flood damage reduction provisions of the Ohio Administrative Code Section 3701.
- C. Major utility facilities permitted by the Ohio Power Siting Board under Section 4906 of the Ohio Revised Code.
- D. Hazardous waste disposal facilities permitted by the Hazardous Waste Siting Board under Section 3734 of the Ohio Revised Code.

- E. Development activities undertaken by a federal agency and which are subject to Federal Executive Order 11988 – Floodplain Management.

Any proposed action exempt from filing for a floodplain development permit is also exempt from the standards of these regulations.

### **1393.10 Map Maintenance Activities**

To meet National Flood Insurance Program minimum requirements to have flood data reviewed and approved by FEMA, and to ensure that City of Berea flood maps, studies and other data identified in Section 1391.04 accurately represent flooding conditions so appropriate floodplain management criteria are based on current data, the following map maintenance activities are identified:

#### **A. Requirement to Submit New Technical Data**

1. For all development proposals that impact floodway delineations or base flood elevations, the community shall ensure that technical data reflecting such changes be submitted to FEMA within six months of the date such information becomes available. These development proposals include:
  - a. Floodway encroachments that increase or decrease base flood elevations or alter floodway boundaries;
  - b. Fill sites to be used for the placement of proposed structures where the applicant desires to remove the site from the special flood hazard area;
  - c. Alteration of watercourses that result in a relocation or elimination of the special flood hazard area, including the placement of culverts; and
  - d. Subdivision or large scale development proposals requiring the establishment of base flood elevations in accordance with Section 1395.01.3.
2. It is the responsibility of the applicant to have technical data, required in accordance with Section 1393.10(A), prepared in a format required for a Conditional Letter of Map Revision or Letter of Map Revision, and submitted to FEMA. Submittal and processing fees for these map revisions shall be the responsibility of the applicant.
3. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for:
  - a. Proposed floodway encroachments that increase the base flood elevation; and
  - b. Proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway.
4. Floodplain development permits issued by the Floodplain Administrator shall be conditioned upon the applicant obtaining a Letter of Map

Revision from FEMA for any development proposal subject to Section 1393.10(A)(1).

**B. Right to Submit New Technical Data**

The Floodplain Administrator may request changes to any of the information shown on an effective map that does not impact floodplain or floodway delineations or base flood elevations, such as labeling or planimetric details. Such a submission shall include appropriate supporting documentation made in writing by the Mayor of City of Berea, and may be submitted at any time.

**C. Annexation / Detachment**

Upon occurrence, the Floodplain Administrator shall notify FEMA in writing whenever the boundaries of the City of Berea have been modified by annexation or the community has assumed authority over an area, or no longer has authority to adopt and enforce floodplain management regulations for a particular area. In order that the City of Berea Flood Insurance Rate Map accurately represent the City of Berea boundaries, include within such notification a copy of a map of the City of Berea suitable for reproduction, clearly showing the new corporate limits or the new area for which the City of Berea has assumed or relinquished floodplain management regulatory authority.

**1393.11 Data Use and Flood Map Interpretation**

The following guidelines shall apply to the use and interpretation of maps and other data showing areas of special flood hazard:

- A. In areas where FEMA has not identified special flood hazard areas, or in FEMA identified special flood hazard areas where base flood elevation and floodway data have not been identified, the Floodplain Administrator shall review and reasonably utilize any other flood hazard data available from a federal, state, or other source.
- B. Base flood elevations and floodway boundaries produced on FEMA flood maps and studies shall take precedence over base flood elevations and floodway boundaries by any other source that reflect a reduced floodway width and/or lower base flood elevations. Other sources of data, showing increased base flood elevations and/or larger floodway areas than are shown on FEMA flood maps and studies, shall be reasonably used by the Floodplain Administrator.
- C. When Preliminary Flood Insurance Rate Maps and / or Flood Insurance Study have been provided by FEMA:
  - 1. Upon the issuance of a Letter of Final Determination by the FEMA, the preliminary flood hazard data shall be used and replace all previously existing flood hazard data provided from FEMA for the purposes of administering these regulations.
  - 2. Prior to the issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data shall only be required where no base

flood elevations and /or floodway areas exist or where the preliminary base flood elevations or floodway area exceed the base flood elevations and/or floodway widths in existing flood hazard data provided from FEMA. Such preliminary data may be subject to change and / or appeal to FEMA.

- D. The Floodplain Administrator shall make interpretations, where needed, as to the exact location of the flood boundaries and areas of special flood hazard. A person contesting the determination of the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 5.0, Appeals and Variances.
- E. Where a map boundary showing an area of special flood hazard and field elevations disagree, the base flood elevations or flood protection elevations (as found on an elevation profile, floodway data table, established high water marks, *etc.*) shall prevail.

### **1393.12 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. Make reasonable attempt to notify owners of substantially damaged structures of the need 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.

## **CHAPTER 1395: USE AND DEVELOPMENT STANDARDS FOR FLOOD HAZARD REDUCTION**

**1395.01** 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 1391.04 or 1393.11(A):



### **1395.01.1 Use Regulations**

#### **A. Permitted Uses**

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

#### **B. Prohibited Uses**

1. Private water supply systems in all special flood hazard areas identified by FEMA, permitted under Section 3701 of the Ohio Revised Code.
2. Infectious waste treatment facilities in all special flood hazard areas, permitted under Section 3734 of the Ohio Revised Code.

### **1395.01.2 Water and Wastewater Systems**

The following standards apply to all water supply, sanitary sewerage and waste disposal systems not otherwise regulated by the Ohio Revised Code:

- 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; and,
- C. On-site waste disposal systems shall be located to avoid impairment to or contamination from them during flooding.

### **1395.01.3 Subdivisions and Large Developments**

- A. All subdivision proposals shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations;
- B. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
- C. All subdivision proposals 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 1393.10(A)(1)(d) when a hydrologic and hydraulic analysis is completed that generates base flood elevations as required by Section 1395.01.3(D).

### **1395.01.4 Residential Structures**

- 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 requirements for anchoring (1395.01.4(A)) and construction materials resistant to flood damage (1395.01.4(B)) are satisfied.
- B. New construction and substantial improvements shall be constructed with methods and materials resistant to flood damage.
- C. New construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or elevated so as to prevent water from entering or accumulating within the components during conditions of flooding.
- D. New construction and substantial improvement of any residential structure, including manufactured homes, shall have the lowest floor, including basement, elevated to or above the flood protection elevation. In Zone AO areas with no elevations specified, the structure shall have the lowest floor, including basement, elevated at least two feet above the highest adjacent natural grade.
- E. New construction and substantial improvements, including manufactured homes, that do not have basements and that are elevated to the flood protection elevation using pilings, columns, posts, or solid foundation perimeter walls with openings sufficient to allow unimpeded movement of flood waters may have an enclosure below the lowest floor provided the enclosure meets the following standards:
  - 1. Be used only for the parking of vehicles, building access, or storage; and
  - 2. be designed and certified by a registered professional engineer or architect to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters; or
  - 3. have a minimum of two openings on different walls having a total net area not less than one square inch for every square foot of enclosed area, and the bottom of all such openings being no higher than one foot above grade. The openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- F. Manufactured homes shall be affixed to a permanent foundation and anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
- G. 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 is the minimum necessary to preserve

the historic character and design of the structure, shall be exempt from the development standards of Section 1395.01.4.

- H. In AO Zones, new construction and substantial improvement shall have adequate drainage paths around structures on slopes to guide floodwaters around and away from the structure.

#### **1395.01.5 Nonresidential Structures**

- A. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet the requirements of Section 1395.01.4 (A) – (C) and (E) –(H).
- B. New construction and substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor, including basement, elevated to or above the level of the flood protection elevation; or, together with attendant utility and sanitary facilities, shall meet all of the following standards:
  - 1. Be dry floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water to the level of the flood protection elevation;
  - 2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
  - 3. Be certified by a registered professional engineer or architect, through the use of a *Federal Emergency Management Agency Floodproofing Certificate*, that the design and methods of construction are in accordance with Section (B)(1) and (2) hereinabove.
- C. In Zone AO areas with no elevations specified, the structure shall have the lowest floor, including basement, elevated at least two feet above the highest adjacent natural grade.

#### **1395.01.6 Accessory Structures**

Relief to the elevation or dry floodproofing standards may be granted for accessory structures containing no more than 600 square feet. Such structures must meet the following standards:

- A. They shall not be used for human habitation;
- B. They shall be constructed of flood resistant materials;
- C. They shall be constructed and placed on the lot to offer the minimum resistance to the flow of floodwaters;
- D. They shall be firmly anchored to prevent flotation;
- E. Service facilities such as electrical and heating equipment shall be elevated or floodproofed to or above the level of the flood protection elevation; and
- F. They shall meet the opening requirements of Section 1395.01.4(E)(3);

#### **1395.01.7 Recreational Vehicles**

Recreational vehicles must meet at least one of the following standards:

- A. They shall not be located on sites in special flood hazard areas for more than 180 days, or
- B. They must be fully licensed and ready for highway use, or
- C. They must meet all standards of Section 1395.01.4.

#### **1395.01.8 Above Ground Gas or Liquid Storage Tanks**

All above ground gas or liquid storage tanks shall be anchored to prevent flotation or lateral movement resulting from hydrodynamic and hydrostatic loads.

#### **1395.01.9 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 1393.10(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 Mayor of the City of Berea 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 1.0 (one) foot at any point. 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 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 1395.01.9(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, 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 City of Berea 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 1393.10(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.

## **CHAPTER 1397: APPEALS AND VARIANCES**

### **1397.01 Appeals Board Established**

- A. The City of Berea Municipal Planning Commission is hereby appointed to serve as the Appeals Board for these regulations as established by City Code.
- B. Records of the Appeals Board shall be kept and filed in City Hall at 11 Berea Commons, Berea, Ohio.

### **1397.02 Powers and Duties**

- A. The Appeals 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 1397.04 of these regulations.

### **1397.03 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 Appeals Board provided that such person shall file, within 20 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 receipt of the notice of appeal, the Appeals Board shall fix a reasonable time for the appeal, give notice in writing to parties in interest, and decide the appeal within a reasonable time after it is submitted.

### **1397.04 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 Appeals 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 Appeals 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 variance shall be accompanied by a variance application fee set in the schedule of fees adopted by the City of Berea.

#### **B. Public Hearing**

At such hearing the applicant shall present such statements and evidence as the Appeals Board requires. In considering such variance applications, the Appeals 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.

#### **C. Variances shall only be issued upon:**

1. A showing of good and sufficient cause.
2. A determination that failure to grant the variance would result in exceptional hardship due to the physical characteristics of the property.

Increased cost or inconvenience of meeting the requirements of these regulations does not constitute an exceptional hardship to the applicant.

3. A determination that the granting of a variance will not result in increased flood heights beyond that which is allowed in these regulations; additional threats to public safety; extraordinary public expense, nuisances, fraud on or victimization of the public, or conflict with existing local laws.
4. A determination that the structure or other development is protected by methods to minimize flood damages.
5. A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

Upon consideration of the above factors and the purposes of these regulations, the Appeals Board may attach such conditions to the granting of variances, as it deems necessary to further the purposes of these regulations.

#### **D. Other Conditions for Variances**

1. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
2. Generally, variances may 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, providing items in Section 1397.04(B)(1) to (11) have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
3. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

#### **1397.05 Procedure at Hearings**

1. All testimony shall be given under oath.
2. A complete record of the proceedings shall be kept, except confidential deliberations of the Board, but including all documents presented and a verbatim record of the testimony of all witnesses.
3. The applicant shall proceed first to present evidence and testimony in support of the appeal or variance.
4. The administrator may present evidence or testimony in opposition to the appeal or variance.
5. All witnesses shall be subject to cross-examination by the adverse party or their counsel.
6. Evidence that is not admitted may be proffered and shall become part of the record for appeal.
7. The Board shall issue subpoenas upon written request for the attendance of witnesses. A reasonable deposit to cover the cost of issuance and service shall be collected in advance.



8. The Board shall prepare conclusions of fact supporting its decision. The decision may be announced at the conclusion of the hearing and thereafter issued in writing or the decision may be issued in writing within a reasonable time after the hearing.

#### **1397.06 Appeal to the Court**

Those aggrieved by the decision of the Appeals Board may appeal such decision to the Cuyahoga County Court of Common Pleas, as provided in Chapter 2506 of the Ohio Revised Code.

### **CHAPTER 1399: ENFORCEMENT**

#### **1399.01 Compliance Required**

- A. No structure or land shall hereafter be located, erected, constructed, reconstructed, repaired, extended, converted, enlarged or altered without full compliance with the terms of these regulations and all other applicable regulations which apply to uses within the jurisdiction of these regulations, unless specifically exempted from filing for a development permit as stated in Section 1393.09.
- B. Failure to obtain a floodplain development permit shall be a violation of these regulations and shall be punishable in accordance with Section 6.3.
- C. Floodplain development permits issued on the basis of plans and applications approved by the Floodplain Administrator authorize only the use, and arrangement, set forth in such approved plans and applications or amendments thereto. Use, arrangement, or construction contrary to that authorized shall be deemed a violation of these regulations and punishable in accordance with Section 1399.99.

#### **1399.02 Notice of Violation**

Whenever the Floodplain Administrator determines that there has been a violation of any provision of these regulations, he shall give notice of such violation to the person responsible therefore and order compliance with these regulations as hereinafter provided. Such notice and order shall:

- A. Be put in writing on an appropriate form;
- B. Include a list of violations, referring to the section or sections of these regulations that have been violated, and order remedial action, which, if taken, will effect compliance with the provisions of these regulations;
- C. Specify a reasonable time for performance;
- D. Advise the owner, operator, or occupant of the right to appeal;
- E. Be served on the owner, occupant, or agent in person. However, this notice and order shall be deemed to be properly served upon the owner, occupant, or agent if a copy thereof is sent by registered or certified mail to the person's last known mailing address, residence, or place of business, and/or a copy is posted in a conspicuous place in or on the dwelling affected.

**1399.99 Violations and Penalties**

Violation of the provisions of these regulations or failure to comply with any of its requirements shall be deemed to be a strict liability offense, and shall constitute a fourth degree misdemeanor. Any person who violates these regulations or fails to comply with any of its requirements shall upon conviction thereof be fined or imprisoned as provided by the laws of the City of Berea. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City of Berea from taking such other lawful action as is necessary to prevent or remedy any violation. The City of Berea shall prosecute any violation of these regulations in accordance with the penalties stated herein.