

ORDINANCE NUMBER 12-2021

An Ordinance to Amend the Lambertville City Code, 2014, Chapter 19, Flood Damage Prevention

§ 19-1 STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

§ 19-1.1 Statutory Authorization.

[1990 Code § 19-1.1; Ord. No. 2009-12 § 1.1]

The Legislature of the State of New Jersey has in N.J.S.A. 40:48-1 et seq., delegated the responsibility to local governmental units to adopt regulations designed to promote public health, safety, and general welfare of its citizenry. Therefore, the Mayor and City Council of the City of Lambertville, of Hunterdon County, New Jersey does ordain as follows.

§ 19-1.2 Findings of Fact.

[1990 Code § 19-1.2; Ord. No. 2009-12 § 1.2; Ord. No. 24-2015]

- a. The flood hazard areas of City of Lambertville are subject to periodic inundation which results 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, all of which adversely affect the public health, safety, and general welfare.
- b. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, cause damage in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.
- c. The City of Lambertville participates as a Community in the FEMA National Flood Insurance Program and the Community Rating System.

§ 19-1.3 Statement of Purpose.

[1990 Code § 19-1.3; Ord. No. 2009-12 § 1.3; Ord. No. 24-2015]

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- a. To protect human life and health;
- b. To minimize expenditure of public money for costly flood control projects;
- c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- d. To minimize prolonged business interruptions;
- e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;
- f. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- g. To reduce flood insurance premiums.

- h. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- i. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

§ 19-1.4 Methods of Reducing Flood Losses.
[1990 Code § 19-1.4; Ord. No. 2009-12 § 1.4]

In order to accomplish its purposes, this chapter includes methods and provisions for:

- a. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- b. Requiring new, altered or damaged buildings and structures with higher than Federal standards,

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 floodwaters;
- d. Controlling filling, grading, dredging, and other development which may increase flood damage; and,
- e. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

§ 19-2 DEFINITIONS.
[1990 Code § 19-2; Ord. No. 2009-12 § 2.0; Ord. No. 24-2015]

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

APPEAL

Shall mean a request for a review of the Construction Official's interpretation of any provision of this Chapter or a request for a variance.

AREA OF SHALLOW FLOODING

Shall mean a designated AO, AH, or VO Zone on a community's Digital Flood Insurance Rate Map (DFIRM) with a 1% annual or greater chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD

Shall mean the land in the floodplain within a community subject to a 1% or greater chance of flooding in any given year.

BASE FLOOD

Shall mean the flood having a 1% chance of being equaled or exceeded in any given year.

BASEMENT

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

BREAKAWAY WALL

Shall mean 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.

CRITICAL FACILITY

Is one that provides essential community services. Typically these are, but not limited to, fire and police stations, ambulance squad, emergency operations center, city hall, electric substations, public works yard, school and nursing homes and shelters.

DEVELOPMENT

Shall mean 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 located within the area of special flood hazard.

ELEVATED BUILDING

Shall mean a non-basement building (i) built in the case of a building in an area of special flood hazard to have the top of the elevated floor elevated above the ground level by means of piling, columns (posts and piers), or shear walls parallel to the flow of the water, and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. In an area of special flood hazard "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.

FLOOD INSURANCE RATE MAP (FIRM)

Shall mean the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY (FIS)

Shall mean the official report in which the Federal Insurance Administration has provided flood profiles, as well as the Flood Insurance Rate Map(s) and the water surface elevation of the base flood.

FLOOD OR FLOODING

Shall mean 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.

FLOOD PLAIN MANAGEMENT REGULATIONS

Shall mean zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a flood plain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such State or local regulations, in any

combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOODWAY

Shall mean the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than 0.2 foot.

HIGHEST ADJACENT GRADE

Shall mean the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE

Shall mean any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- 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;
- c. Individually listed on a State inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 1. By an approved State program as determined by the Secretary of the Interior; or
 2. Directly by the Secretary of the Interior in states without approved programs.

LOWEST FLOOR

Shall mean the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for the parking of vehicles, building access or storage in an area other than a basement is not considered a building's lowest floor provided that such enclosure is not built so to render the structure in violation of other applicable non-elevation design requirements.

MANUFACTURED HOME

Shall mean 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 attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

MANUFACTURED HOME PARK OR MANUFACTURED HOME SUBDIVISION

Shall mean a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

NEW CONSTRUCTION

Shall mean structures for which the start of construction commenced on or after the effective date of a floodplain regulation adopted by a community and includes any subsequent improvements to such structures.

NEW MANUFACTURED HOME PARK OR SUBDIVISION

Shall mean a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the floodplain management regulations adopted by the Municipality.

RECREATIONAL VEHICLE

Shall mean a vehicle which is [i] built on a single chassis; [ii] 400 square feet or less when measured at the longest horizontal projections; [iii] designed to be self-propelled or permanently towable by a light duty truck; and [iv] designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

START OF CONSTRUCTION

For other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. No. 97-348) includes substantial improvements and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site such as the pouring of a 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 or piers, or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE

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

SUBSTANTIAL DAMAGE

Shall mean damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT

Shall mean any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which exceeds 50% 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 either:

- a. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure".

VARIANCE

Shall mean a grant of relief from the requirements of this chapter that permits construction in manner that would otherwise be prohibited by this chapter.

§ 19-3 GENERAL PROVISIONS.

§ 19-3.1 Lands to Which This Chapter Applies.

[1990 Code § 19-3.1; Ord. No. 2009-12 § 3.1]

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the City of Lambertville, Hunterdon County, New Jersey.

§ 19-3.2 Basis for Establishing the Areas of Special Flood Hazard.

[1990 Code § 19-3.2; Ord. No. 2009-12 § 3.2; Ord. No. 04-2012]

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study, Hunterdon County, New Jersey" dated May 2, 2012, with accompanying Flood Insurance Rate Map for Hunterdon County, New Jersey (all Jurisdictions) as shown on Index and panel(s) 34019C0339G, 34019C0402G, 34019C0406F, whose effective date is May 2, 2012.

The above documents are hereby adopted and declared to be a part of this Chapter. The Flood Insurance Study and Maps are on file at 18 York Street, Lambertville, New Jersey 08530.

§ 19-3.3 Penalties for Noncompliance.

[1990 Code § 19-3.3; Ord. No. 2009-12 § 3.3]

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$2,000 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the City of Lambertville from taking such other lawful action as is necessary to prevent or remedy any violation.

§ 19-3.4 Abrogation and Greater Restrictions.

[1990 Code § 19-3.4; Ord. No. 2009-12 § 3.4]

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

§ 19-3.5 Interpretation.

[1990 Code § 19-3.5; Ord. No. 2009-12 § 3.5]

In the interpretation and application of this chapter, 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.

§ 19-3.6 Warning and Disclaimer of Liability.

[1990 Code § 19-3.6; Ord. No. 2009-12 § 3.6]

The degree of flood protection required by this chapter 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 manmade or natural causes. This chapter does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.

This chapter shall not create liability on the part of the City of Lambertville, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

§ 19-4 ADMINISTRATION.

§ 19-4.1 Establishment of Development Permit.

[1990 Code § 19-4.1; Ord. No. 2009-12 § 4.1]

- a. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in subsection **19-3.2**. Application for a development permit shall be made on forms furnished by the Construction Official and may include, but not be limited to; plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing.
- b. Specifically, the following information is required:
 1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
 2. Elevation in relation to mean sea level to which any structure has been floodproofed.
 3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in subsection **19-5.2b** and,
 4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

§ 19-4.2 Designation of the Local Administrator.

[1990 Code § 19-4.2; Ord. No. 2009-12 § 4.2]

The Construction Official is hereby appointed to administer and implement this chapter granting or denying development permit applications in accordance with its provisions.

§ 19-4.3 Duties and Responsibilities of the Administrator.
[1990 Code § 19-4.3; Ord. No. 2009-12 § 4.3]

Duties of the Construction Official shall include, but not be limited to:

- a. Permit Review.
 1. Review all development permits to determine that the permit requirements of this chapter have been satisfied.
 2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
 3. Review all development permits to determine if the proposed development is located in the floodway, assure that the encroachment provisions of subsection **19-5.3a** are met.
- b. Use of Other Base Flood and Floodway Data. When base flood elevation and floodway data has not been provided in accordance with subsection **19-3.2**, Basis for Establishing the Areas of Special Flood Hazard, the Construction Official shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer subsections **19-5.2a** Specific Standards, Residential Construction, and 19-5.2b Specific Standards, Nonresidential Construction.
- c. Information to be Obtained and Maintained.
 1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
 2. For all new or substantially improved floodproofed structures:
 - (a) Verify and record the actual elevation (in relation to mean sea level); and
 - (b) Maintain the floodproofing certifications required in subsection 19-4.1c
 3. Maintain for public inspection all records pertaining to the provisions of this chapter.
- d. Alteration of Watercourses.
 1. Notify adjacent communities and the New Jersey Department of Environmental Protection, Dam Safety and Flood Control Section and the Land Use Regulation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
 2. Require that maintenance is provided within the altered or relocated portion of said watercourse so the flood carrying capacity is not diminished.
- e. Interpretation of FIRM Boundaries. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the

boundary shall be given a reasonable opportunity to appeal the interpretation as provided in subsection **19-4.4**.

§ 19-4.4 Variance Procedure.

[1990 Code § 19-4.4; Ord. No. 2009-12 § 4.4]

- a. Appeal Board.
 1. The Zoning Board of Adjustment as established by City of Lambertville shall hear and decide appeals and requests for variances from the requirements of this chapter.
 2. The Zoning Board of Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Construction Official in the enforcement or administration of this chapter.
 3. Those aggrieved by the decision of the Zoning Board of Adjustment, or any taxpayer, may appeal such decision to the Mayor and City Council of Lambertville.
 4. In passing upon such applications, the Zoning Board of Adjustment, shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:
 - (a) The danger that materials may be swept onto other lands to the injury of others;
 - (b) The danger to life and property due to flooding or erosion damage;
 - (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (d) The importance of the services provided by the proposed facility to the community;
 - (e) The necessity to the facility of a waterfront location, where applicable;
 - (f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - (g) The compatibility of the proposed use with existing and anticipated development;
 - (h) The relationship of the proposed use to the comprehensive plan and floodplain management program of that area;
 - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (j) 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; and,
 - (k) 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.

5. Upon consideration of the factors of subsection **19-4.4a,4** and the purposes of this chapter, the Zoning Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
 6. The Construction Official shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.
- b. Conditions for Variances.
1. 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 subsection **19-4.4a,4** (a-k) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
 2. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
 3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
 4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 5. Variances shall only be issued upon:
 - (a) A showing of good and sufficient cause;
 - (b) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and,
 - (c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in subsection **19-4.4a,4**, or conflict with existing local laws or ordinances.
 6. 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 that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

§ 19-5 PROVISIONS FOR FLOOD HAZARD REDUCTION.

§ 19-5.1 General Standards.

[1990 Code § 19-5.1; Ord. No. 2009-12 § 5.1; Ord. No. 04-2012]

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

- a. Anchoring.

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
 2. All manufactured homes to be placed or substantially improved shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.
- b. Construction Materials and Methods.
1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- c. Utilities.
1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters in the system;
 2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters;
 3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and
 4. For all new construction, substantial improvement and repetitive loss properties (where technically feasible), the electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- d. Subdivision Proposals.
1. All subdivision proposals shall be consistent with the need to minimize flood damage;
 2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
 3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and,
 4. Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or five acres (whichever is less).
- e. Enclosure Openings. All new construction and substantial improvements having fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize

hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.

§ 19-5.2 Specific Standards.

[1990 Code § 19-5.2; Ord. No. 2009-12 § 5.2; Ord. No. 04-2012]

In all areas of special flood hazards where base flood elevation data have been provided as set forth in subsection **19-3.2**, Basis for Establishing the Areas of Special Flood Hazard or in subsection **19-4.3b**, Use of Other Base Flood Data, the following standards are required:

a. Residential Construction.

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated with two (2) feet of freeboard above Base flood elevation;
2. Require within any AO Zone on the municipality's FIRM that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet plus two (2) feet of freeboard (at least two feet if no depth number is specified). And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

b. Nonresidential Construction. In an area of special flood hazard, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, including the basement together with the attendant utilities and sanitary facilities:

1. Either:

- (a) Elevated to the level of the base flood elevation plus two (2) feet of freeboard; and
- (b) Within any AO Zone on the municipality's DFIRM that all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet (at least two feet if no depth number is specified). And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures;

2. Or:

- (a) Be flood proofed so that below the base flood level plus two (2) feet of freeboard, the structure is watertight with walls substantially impermeable to the passage of water;
- (b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
- (c) Be certified by a registered professional engineer or architect that the design and methods of

construction are in accordance with accepted standards of practice for meeting the applicable provisions of this subsection. Such certification shall be provided to the official as set forth in subsection **19-4.3c,2(b)**

c. **Manufactured Homes.**

1. Manufactured homes shall be anchored in accordance with subsection **19-5.1a,2**.
2. All manufactured homes to be placed or substantially improved within an area of special flood hazard shall be elevated on a permanent foundation such that the top of the lowest floor is at or above the base flood elevation plus two (2) feet of freeboard.

d. **Critical Facilities**

1. Critical facilities shall be prohibited from the 0.2 percent annual chance flood (equaled or exceeded in any given year) as defined on the FEMA effective Flood Insurance Rate Map.
2. If a Critical Facility must be located in the Special Flood Hazard Area or the Shaded X Zone on the Flood Insurance Rate Map (0.2% annual chance flood; the “500-year floodplain,
 - a. It shall be elevated to the level of the 0.2 percent chance flood or
 - b. It shall be flood proofed up to the elevation of the 0.2 percent chance flood.

§ 19-5.3 Floodways.

[1990 Code § 9-5.3; Ord. No. 2009-12 § 5.3]

Located within areas of special flood hazard established in subsection **19-3.2** are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- a. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless a technical evaluation demonstrates that encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- b. If subsection **19-5.3a** is satisfied, all new construction and substantial improvements must comply with Section **19-5**, Provisions for Flood Hazard Reduction.
- c. In all areas of special flood hazard in which base flood elevation data has been provided and no floodway has been designated, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than 0.2 of a foot at any point.

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PUBLIC HEARING AND SECOND READING: May20, 2021