

ORDINANCE 2019-26

ORDINANCE AMENDING AND SUPPLEMENTING CHAPTER XXXV, FLOOD DAMAGE PREVENTION OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF BELMAR

THEREFORE, BE IT ORDAINED by the Borough of Belmar, County of Monmouth, New Jersey, that Chapter XXXV, Flood Damage Prevention of the Borough of Belmar Revised General Ordinances is hereby amended and supplemented as follows:

SECTION I. 35-1 DEFINITIONS

35-2.1 Words Defined.

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.

AO Zone shall mean areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet.

AH Zone shall mean areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone

Appeal shall mean a request for a review of the ~~Zoning Officer's~~ **Floodplain Administrator's** interpretation of any provision of this Chapter or a request for a variance.

Area of special flood hazard shall mean the land in the floodplain within a community subject to a one (1%) percent or greater chance of flooding in any given year. **It is shown on the FIRM as Zone V, VE, V1-30, A, AO, A1 A30, AE, A99, or AH.**

Base Flood Elevation (BFE) shall mean the flood elevation shown on a published Flood Insurance Study (FIS) including the Flood Insurance Rate Map (FIRM). For zones AE, AH, AO, and A1-30 the elevation represents the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year. For zones VE and V1-30 the elevation represents the stillwater elevation (SWEL) plus wave effect (BFE = SWEL + wave effect) resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

Best Available Flood Hazard Data shall mean the most recent available flood risk guidance FEMA has provided. The Best Available Flood Hazard Data may be depicted on but not limited to Advisory Flood Hazard Area Maps, Work Maps or Preliminary FIS and FIRM.

Best Available Flood Hazard Data Elevation shall mean the most recent available flood elevation FEMA has provided. The Best Available Flood Hazard Data Elevation may be depicted on an Advisory Flood Hazard Area Map; Work Map; or Preliminary FIS and FIRM.

Coastal A Zone shall mean the portion of the Special Flood Hazard Area (SFHA) starting from a Velocity (V) Zone and extending up to the landward Limit of the Moderate Wave Action delineation. Where no V Zone is mapped the Coastal A Zone is the portion between the open coast and the landward Limit of the Moderate Wave Action delineation. Coastal A Zones may be subject to wave effects, velocity flows, erosion, scour, or a combination of these forces. Construction and development in Coastal A Zones is to be regulated the same as V

Zones/Coastal High Hazard Areas.

Elevated building shall mean a non-basement building (i) built in the case of a building in a coastal high hazard area **an Area of Special Flood Hazard to have the top of the elevated floor, or in the case of a building in a Coastal High Hazard or Coastal A Zone** to have the bottom of the lowest horizontal structural member of the elevated floor, elevated above the ~~ground level~~ **base flood elevation plus freeboard** 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. In areas of coastal high hazard **and Coastal A Zones** "elevated buildings" also includes a building otherwise meeting the definition of "elevated building" even though the lower area is enclosed by means of breakaway walls.

Existing 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 before the effective date of the floodplain management regulations adopted by a community.**

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.**

Floodproofing shall mean **any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.**

Highest adjacent grade shall mean the highest natural elevation of the ground surface prior to construction next to the proposed **or existing** walls of a structure.

Limit of Moderate Wave Action (LiMWA) shall mean the **Inland limit of the area affected by waves greater than 1.5 feet during the Base Flood. Base Flood conditions between the V Zone and the LiMWA will be similar to, but less severe than those in the V Zone.**

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 **of 44 CFR Section 60.3.**

Preliminary Flood Insurance Rate Map (FIRM) shall mean the **draft version of the FIRM released for public comment before finalization and adoption.**

Sand dunes shall mean naturally occurring **or man-made** accumulations of sand in ridges or mounds landward of the beach.

Violation shall mean the **failure of a structure or other development to be fully compliant with this ordinance. A new or substantially improved structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR §60.3(b)(5), (c)(4), (c)(10), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.**

SECTION II. 35-2 GENERAL PROVISIONS

35-3.2 Basis for Establishing the Areas of Special Flood Hazard.

- a. ~~Advisory Base Flood Elevations and Advisory Flood Hazard Maps dated December 12, 2012. These documents shall take precedence over previous panels and FIS in construction and development regulations only. Where the special flood hazard area (SFHA) and the advisory flood hazard area (AFHA) maps conflict or overlap, whichever imposes the more stringent requirement shall prevail.~~
- b. **Best Available Flood Hazard Data. These documents shall take precedence over effective panels and FIS in construction and development regulations only. Where the effective mapping or Base Flood Elevation conflict or overlap with the Best Available Flood Hazard Data, whichever imposes the more stringent requirement shall prevail.**

SECTION III. 35-2 ADMINISTRATION

35-4.1 Establishment of Development Permit.

A development permit shall be obtained before construction or development begins, **including placement of manufactured homes**, within any area of special flood hazard established in subsection 35-3.2. Application for a development permit shall be made on forms furnished by the ~~Zoning Officer~~ **Floodplain Administrator** 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.

35-4.2 Designation of the Local Administrator.

The ~~Zoning Officer~~ **Floodplain Administrator** is hereby appointed to administer and implement this Chapter by granting or denying development permit applications in accordance with its provisions. (Ord. No. 2009-14, § I, Art. 4.0)

35-4.3 Duties and Responsibilities of the Administrator.

Duties of the ~~Zoning Officer~~ **Floodplain Administrator** 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.
 4. Review all development permits in the coastal high hazard area of the area of special flood hazard to determine if the proposed development alters sand dunes so as to increase potential flood damage.
 5. Review plans for walls to be used to enclose space below the base flood level in accordance with subsection 35-5.3b,4.
- b. *Use of Other Base Flood and Floodway Data.* When base flood elevation and floodway data

has not been provided in accordance with subsection 35-3.2, Basis for Establishing the Areas of Special Flood Hazard, the ~~Zoning Officer~~ **Floodplain Administrator** 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 35-5.2a, Specific Standards, Residential Construction, and 35-5.2b, 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 35-4.1c.
3. In coastal high hazard and **Coastal A Zone** areas, certification shall be obtained from a registered professional engineer or architect that the provisions of 35- 5.3b,1 and 35-5.3b,2(a) and (b) are met.
4. 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~~ **Bureau of** 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. Substantial Damage Review

1. **After an event resulting in building damages, assess the damage to structures due to flood and non-flood causes.**
2. **Record and maintain the flood and non-flood damage of substantial damage structures and provide a letter of Substantial Damage Determination to the owner and the New Jersey Department of Environmental Protection, Bureau of Flood Control.**
3. **Ensure substantial improvements meet the requirements of sections 35- 5.2a, Specific Standards, Residential Construction, 35-5.2b, Specific Standards, Nonresidential Construction, and 5.2c, Specific Standards, Manufactured Homes**

SECTION IV. 35-4.4 VARIANCE PROCEDURE

a. Appeal Board.

1. The Board of Adjustment shall hear and decide appeals and requests for variances from the requirements of this Chapter. However, if the variances from the requirements of this Chapter are made in conjunction with an application for which the Planning Board has jurisdiction, the Planning Board may grant relief as provided herein.
2. The 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 ~~Zoning Officer~~ **Floodplain Administrator** in the enforcement or administration of this Chapter.
3. Those aggrieved by the decision of the Board of Adjustment, or any taxpayer, may appeal such decision as provided by law.
4. In passing upon such applications, the 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 35-4.4a,4 and the purposes of this Chapter, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter.
 6. The ~~Zoning Officer~~ **Floodplain Administrator** shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

SECTION V. 35-2 PROVISIONS FOR FLOOD HAZARD REDUCTION

35-5.1 General Standards.

In all areas of special flood hazards, compliance with the applicable requirements of the Uniform Construction Code (N.J.A.C. 5:23) and the following standards, whichever is more restrictive, is required:

c. 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.

d. 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.

e. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into 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 or and substantial improvements 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.

f. Subdivision Proposals.

1. All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage;
 2. All subdivision proposals and other proposed new development 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 and other proposed new development 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 new development which contain at least fifty (50) lots or five (5) acres (whichever is less).
- g. 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 (2) openings **in at least two (2) exterior walls of each enclosed area** having a total net area of not less than one (1) 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 (1') 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.

35-5.2 Specific Standards.

In all areas of special flood hazards where base flood elevation data have been provided as set forth in subsection 35-3.2, Basis for Establishing the Areas of Special Flood Hazard or in subsection 35-4.3b, Use of Other Base Flood and Floodway Data, the following standards are required:

a. Residential Construction.

1. **For Coastal A Zone construction see section 35-5.3 Coastal High Hazard Area and Coastal A Zone**
2. New construction and substantial improvement of any residential structure **located in an A or AE zone** shall have the lowest floor, including basement together with the attendant utilities (including all electrical, heating, ventilating, air-conditioning and other service equipment) and sanitary facilities, elevated to or above base flood elevation ~~or advisory base flood elevation whichever is more restrictive, plus one (1') foot;~~ **plus one (1) foot or as required by ASCE/SEI 24-14,**

Table 2-1, whichever is more restrictive.

3. Within any AO or AH Zone on the municipality's DFIRM that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, together with the attendant utilities and sanitary facilities, elevated above the highest adjacent grade one (1') foot above the depth number specified in feet (at least three (3') feet if no depth number is specified) or at or above the advisory base flood elevation plus one (1') foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures. above the depth number specified in feet plus one (1) foot, above the highest adjacent grade (at least three (3) feet if no depth number is specified) or at or above the best available flood hazard data elevation plus one foot, whichever is more restrictive. 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: located in an A or AE zone (for Coastal A Zone construction see section 5.4 COASTAL HIGH HAZARD AREA AND COASTAL A ZONE) shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities as well as all electrical, heating, ventilating, air-conditioning and other service equipment:
either:
 1. Be elevated to or above the base flood elevation ~~or advisory base flood elevation whichever is more restrictive~~, plus one (1') foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive; and;
 2. Require within any AO or AH Zone on the municipality's DFIRM that all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated above the highest adjacent grade one (1') foot above the depth number specified in feet (at least three (3') feet if no depth number is specified) or at or above the advisory base flood elevation plus one (1') foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures; to elevate above the depth number specified in feet plus one (1) foot, above the highest adjacent grade (at least three (3) feet if no depth number is specified) or at or above the best available flood hazard data elevation plus one foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures;
or shall:
 3. Be floodproofed so that below the base flood level plus one (1') foot, ~~or advisory base flood elevation plus one (1') foot, (whichever is more restrictive)~~ plus one (1) foot or as required by ASCE/SEI 24-14, Table 6-1, whichever is more restrictive the structure is watertight with walls substantially impermeable to the passage of water; and
 4. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
 5. 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 35-4.3c,2(b).

- c. *Manufactured Homes.*
 1. Manufactured homes shall be anchored in accordance with subsection 35-5.1a,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 or advisory base flood elevation, plus one (1') foot (whichever is more restrictive).~~
 - (a) Be consistent with the need to minimize flood damage,
 - (b) Be constructed to minimize flood damage,
 - (c) Have adequate drainage provided to reduce exposure to flood damage; and,
 - (d) Be elevated on a permanent foundation such that the top of the lowest floor is at or above the base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive
 - (e) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.

35-5.3 Coastal High Hazard Area and Coastal A Zone.

Coastal high hazard areas (V or VE Zones) **and Coastal A Zones** are located within the areas of special flood hazard established in subsection 35-3.2. These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, the following provisions shall apply:

a. Location of Structures.

1. All buildings or structures shall be located landward of the reach of the mean high tide.
2. The placement of manufactured homes shall be prohibited, except in an existing manufactured home park or manufactured home subdivision.

b. Construction Methods.

1. Elevation. All new construction and substantial improvements shall be elevated on piling or columns so that:
 - (a) The bottom of the lowest horizontal structural member of the lowest floor (excluding the piling or columns) is elevated to or above the base flood elevation, ~~advisory base flood elevation or as required by the Uniform Construction Code (N.J.A.C. 5:23), whichever is more restrictive~~ **plus one (1) foot or as required by ASCE/SEI 24-14, Table 4-1, whichever is more restrictive,** and
 - (b) With all space below the lowest floor's supporting member open so as not to impede the flow of water, except for breakaway walls as provided for in subsection 35-5.3b,4.
2. Structural Support.
 - (a) All new construction and substantial improvements shall be securely anchored on piling or columns.
 - (b) The pile or column foundation and structure attached thereto shall be anchored to resist flotation, collapse or lateral movement due to the effects of wind and water loading values each of which shall have a one (1%) percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).
 - (c) ~~There shall be no fill used for structural support.~~ **Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, V, and Coastal A on the community's**

FIRM.

3. Certification. A registered professional engineer or architect shall develop or review the structural design specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for compliance with the provisions of subsection 35-5.3b,1 and 35-5.3b,2(a) and (b).
4. Space Below the Lowest Floor.
 - (a) Any alteration, repair, reconstruction or improvement to a structure started after the enactment of this Chapter shall not enclose the space below the lowest floor unless breakaway walls, open wood lattice-work or insect screening are used as provided for in this section.
 - (b) Breakaway walls, open wood lattice-work or insect screening shall be allowed below the base flood elevation provided that they are intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Breakaway walls shall be designed for a safe loading resistance of not less than ten (10) and no more than twenty (20) pounds per square foot. Use of breakaway walls which exceed a design safe loading of twenty (20) pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions.
 - (1) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood and,
 - (2) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement or other structural damage due to the effects of wind and water load acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards.
 - (c) If breakaway walls are utilized, such enclosed space shall be used solely for parking of vehicles, building access, or storage and not for human habitation.
 - (d) Prior to construction, plans for any breakaway wall must be submitted to **the Construction Code Official** or Building Sub-Code Official for approval.
- c. *Sand Dunes*. Prohibit manmade alteration of sand dunes within **Coastal A Zones**, Zones VE and V **Zones** on the community's DFIRM which would increase potential flood damage.

SECTION VI. 35-2 SEVERABILITY

If any section, subsection, paragraph, sentence, clause, or phrase of this Chapter shall be declared invalid for any reason whatsoever, such a decision shall not affect the remaining portions of the Chapter, which shall remain in full force and effect, and for this purpose the provisions of this Chapter are hereby declared to be severable.

SECTION VII. If any section, paragraph, subdivision, clause or provision of this ordinance shall be adjudged invalid, such adjudication shall apply only to the section, paragraph, subdivision, clause or provision so adjudged and the remainder of the Ordinance shall be deemed valid and effective.

SECTION VIII. All Ordinances or parts of ordinances inconsistent with or in conflict with the ordinance are hereby repealed to the extent of such inconsistency.

SECTION IX. This Ordinance shall take effect 20 days after final passage, adoption and publication according to law.