

**BOROUGH OF NORTHVALE**  
**County of Bergen**  
**State of New Jersey**

**ORDINANCE #997-2019**

**AN ORDINANCE TO AMEND ORDINANCE #925-13 OF THE BOROUGH OF NORTHVALE, KNOWN AND DESIGNATED AS “FLOOD DAMAGE PREVENTION ORDINANCE” OF THE BOROUGH OF NORTHVALE**

**BE IT ORDAINED** by the Mayor and Council of the Borough of Northvale as follows:

Article II.

**AH Zone-** 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

**AO Zone-** 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.

**Elevated Building** — 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 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 flood waters

**Freeboard** — A factor of safety usually expressed in feet above a flood level for purposes of flood plain 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, bridge openings, and the hydrological effect of urbanization of the watershed.

**Section 1.** Section 3.2 of Ordinance #925-2013 is hereby deleted in its entirety and replaced with the following amendment:

“3.2. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARDS.

The areas of special flood hazard for the Borough of Northvale, Community No. 340056 are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

- a) A scientific and engineering report “Flood Insurance Study, Bergen County, New Jersey (All Jurisdictions)” dated August 28, 2019.
- b) Flood Insurance Rate Map for Bergen County, New Jersey (All Jurisdictions) as shown on Index and panel(s) 34003C0114H and 34003C0202H, whose effective date is August 28, 2019.

#### **4.3-5 SUBSTANTIAL DAMAGE REVIEW**

- a) After an event resulting in building damages, assess the damage to structures due to flood and non-flood causes.
- b) 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.
- c) Ensure substantial improvements meet the requirements of sections 5.2-1, SPECIFIC STANDARDS, RESIDENTIAL CONSTRUCTION, 5.2-2, SPECIFIC STANDARDS, NONRESIDENTIAL CONSTRUCTION and 5.2-3, SPECIFIC STANDARDS, MANUFACTURED HOMES.

#### **5.1-5 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.

#### **5.2-1 RESIDENTIAL CONSTRUCTION**

- a) 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 at or above the more restrictive base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1;

b) Require 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 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). And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

## **2 NONRESIDENTIAL CONSTRUCTION**

In an Area of Special Flood Hazard, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure located in an A or AE 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:

a) Elevated at or above the more restrictive base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, and

b) Require within any AO or AH zone on the municipality's DFIRM 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). And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures;

Or

Be floodproofed so that below the more restrictive, base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 6-1, the structure is watertight with walls substantially impermeable to the passage of water.

### **5.2-3 MANUFACTURED HOMES**

a) Manufactured homes shall be anchored in accordance with section 5.1-1  
b).

b) All manufactured homes to be placed or substantially improved within an area of special flood hazard shall:

i. Be consistent with the need to minimize flood damage,

- ii. Be constructed to minimize flood damage,
- iii. Have adequate drainage provided to reduce exposure to flood damage,
- iv. Be elevated on a permanent foundation such that the top of the lowest floor is at or above the more restrictive base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1 and,
- v. 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.

## **SECTION 6.0 SEVERABILITY**

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

**Section 2.** The above documents are hereby adopted and declared to be a part of this ordinance. The Flood Insurance Study, maps and advisory documents are on file at 116 Paris Avenue, Northvale, New Jersey 07647.

**Section 3.** All remaining Sections and Subsections of Ordinance #925-2013 shall remain in full force and effect.

**Section 4.** Any Ordinance or portions thereof, inconsistent with the terms of this Ordinance, are hereby repealed as to such inconsistencies only.

**Section 5.** This Ordinance shall take effect immediately upon passage and publication as required by law.

PATRICK J. MARANA

ATTEST:

Wanda A. Worner, Borough Clerk

Introduced: May 8, 2019

Passed: June 12, 2019