

CHAPTER XXII

FLOOD DAMAGE PREVENTION

22-1 PURPOSE AND POLICY.

It is hereby found that the flood hazard areas of the Township are subject to periodic inundation which results in loss of life, 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 of the citizens of the Township. It is further found that these flood losses are caused by the cumulative effect of obstructions in flood plains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood proofed, or otherwise protected from flood damages. 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 to protect human life and health; minimize expenditure of public money for costly flood control projects; minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; minimize prolonged business interruptions; minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in flood plains; help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and insure that potential home buyers are notified that property is in a flood area. In order to accomplish its purposes, this chapter restricts or prohibits uses which are dangerous to health, safety and property due to water or erosion or in flood heights or velocities; requires that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; controls the alteration of natural flood plains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters; controls filling, grading, dredging and other development which may increase flood damage; and prevents or regulates the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

(Ord. 6-18-74 § 45-1)

22-2 DEFINITIONS.

As used in this chapter:

Appeal shall mean a request for a review of the Construction Code Official's interpretation of any provision of this chapter request for a variance.

Area of shallow flooding shall mean a designated AO or VO Zone on a community's Flood Insurance Rate Map (FIRM) with base flood depths from one (1') to three (3') feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

Area of special flood hazard shall mean the land in the flood plain within a community subject to a one (1%) percent or greater chance of flooding in any given year.

Base flood shall mean the flood having a one (1%) percent 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 side.

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.

Development shall mean any man-made 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 located within the area of special flood hazard.

Elevated building shall mean:

a. A non-basement building:

1. Build in the case of a building in 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 area to have the bottom of the lowest horizontal structural member 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.
2. Adequately anchored so as not to impair the structural integrity of the building of the base flood.

b. 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. In areas of coastal high hazard elevated building even though the lower area is enclosed by means of breakaway walls.

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.
- b. The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM) shall mean the official map, on which the Federal Insurance Administration has provided flood profiles, as well as the flood hazard boundary-floodway map and the water surface elevation of the base flood.

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 two-tenths of one (2/10') foot as a result of encroachment.

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 application non-elevation design requirements.

Manufactured home shall mean a structure, transportable in one (1) or more sections, which is building on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For flood plain management purposes, the term "manufactured home" also included park trailers, travel trailers, and other similar vehicle placed on a site for greater than one hundred eighty (180) consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers and other similar vehicles.

Manufactured home park or subdivision shall mean a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

Start of construction shall mean (For other new construction or substantial improvements under the Coastal Barrier Resources Act [Pub. 1. 97-348] and include substantial improvement, and the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within one hundred eighty (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 shed not occupied as dwelling units or not part of the main structure.

Structure shall mean a walled and roofed building that is principally above ground, as well as a mobile home.

Substantial improvement shall mean any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50%) percent of the market value of the structure either:

- a. Before the improvement or repair is started.
- b. If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:
 1. Any project for improvement of a structure to comply with existing State or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.
 2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

Variance shall mean a grant of relief to a person from the requirements of this chapter which permits construction in a manner otherwise is prohibited by this chapter where specific enforcement would result in unnecessary hardship. (Ord. 6-18-74 § 45-2; Ord. 11-8-79; Ord. 12-18-79; Ord. 9-16-86; Ord. 3-31-87, S1)

22-3 BASIS FOR ESTABLISHING AREAS OF SPECIAL FLOOD HAZARD AND GENERAL PROVISIONS

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the Township of Rockaway in the County of Morris. The areas of special flood hazard identified by the Federal Insurance Administration through a scientific and engineering report entitled, "The Flood Insurance Study for the Township of Rockaway," dated September 18, 1986, with accompanying Flood-Boundary Floodway maps is hereby adopted by reference and declared to be part of this chapter.

(Ord. 6-18-74 § 45-3; Ord. 11-8-79; Ord. 9-16-86)

22-4 RESERVED.

22-5 ADMINISTRATION.

22-5.1 Establishment of Development Permit.

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 22-3. Application for a development permit shall be made to the Construction Code Official on forms furnished by him and may include, but not be limited to, the following 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. Specifically, the following information is required:

- a. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures.
- b. Elevation in relation to mean sea level to which any non-residential structure has been floodproofed.
- c. Plans showing how any non-residential floodproofed structure will meet the floodproofing criteria of subsection 22-6.2b and after the structure is built, a certification by a registered professional engineer or architect that the structure as built meets the criteria of subsection 22-6.2b.
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- e. Copy of any State permits required.

(Ord. 6-18-74 § 45-6; Ord. 11-8-79; Ord. 7-1-86; Ord. 9-16-86; Ord. 3-31-87, S2)

22-5.2 Designation of Construction Code Official.

The Construction Code Official is hereby appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (Ord. 6-18-76 § 45-6; Ord. 11-8-79; Ord. 7-1-86; Ord. 9-16-86; Ord. 3-31-87, S2)

22-5.3 Duties and Responsibilities of the Construction Code Official.

Duties of the Construction Code 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 require 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 such proposed development is located within the floodway. If the proposed development is to be located in the floodway, a certification shall be obtained in accordance with subsection 22-6.2.

b. *Use of Other Base Flood Data.* When base flood elevation and floodway data has not been provided in accordance with Section 22-3, Basis for Establishing Areas of Special Flood Hazard and General Provisions, then the Construction Code 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 subsection 22-6.2 and subsection 22-6.2b.

c. Information to be Obtained and Maintained.

1. Verify 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 seal level).

(b) Maintain the flood proofing and certifications required in subsection 22-5.1.

3. Maintain for public inspection all records pertaining to the provisions of this chapter.

d. *Alteration of Watercourses.*

1. Notify adjacent communities and the Department of Environmental Protection 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 the watercourse so that the flood carrying capacity is not diminished.

e. *Interpretation, 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 this article.

(Ord. 6-18-74 § 45-6; Ord. 11-8-79; Ord. 7-1-86; Ord. 9-16-86; Ord. 3-31-87 S2)

22-5.4 Variance Procedure.

a. *Appeal Board.*

1. The Planning Board as established by the Township shall hear and decide appeals and requests for variances from the requirements of this chapter.

2. The Planning Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Construction Code Official in the enforcement or administration of this chapter.

3. Any person aggrieved by the decision of the Planning Board or any taxpayer may appeal such decision to the appropriate court.

4. In passing upon such applications, the Planning Board 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, not subject to flooding or erosion damage, for the proposed use.
 - (g) The compatibility of the proposed use with existing and anticipated development.
 - (h) The relationship of the proposed use to the comprehensive plan and flood plain management program for 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 flood waters and the effects of wave action, if applicable, expected at the site.
 - (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.
 - (l) Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (1/2) acre or less in size contiguous to and surrounded by lots with existing structures constructed

below the base flood level, providing items (a) to (k) above have been fully considered. As the lot size increases beyond the one-half (1/2) acre, the technical justification required to issuing the variance increases.

5. Upon consideration of the factors listed above and the purposes of this chapter the Planning Board may attached such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
6. The Construction Code Official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

b. *Conditions for Variances*

1. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
2. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
4. 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.
 - (c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, crease nuisances, cause fraud on or victimization of the public as identified in subsection 22-5.4, a. or conflict with existing local laws or ordinances.
5. Any applicant to whom a variance is granted shall be given written notice indicating the elevation below the base flood level

in (in feet) to which the lowest floor of the structure will be built, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(Ord. 6-18-74 § 45-6; Ord. 11-8-79; Ord. 7-1-86; Ord. 9-16-86; Ord. 3-31-87, S2)

22-6 PROVISIONS FOR FLOOD HAZARD REDUCTION.

22-6.1 General Standards.

In all areas of special flood hazards the following provisions 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 shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties or 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 or substantial improvements shall be constructed by methods and practices that minimize flood damage.

c. *Utilities.*

1. All new and replacement water supply systems shall be designated to minimize or eliminate infiltration of flood waters into the system.
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the systems into flood waters.

3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
4. 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.
4. Base flood elevation data shall be provided for subdivision proposals and other proposed development which is greater than the lesser of fifty (50) lots or five (5) acres.

e. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. 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:

1. A minimum of two (2) openings 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.
2. The bottom of all openings shall be no higher than one (1') foot above grade.
3. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

(Ord. 6-18-74 § 45-7; Ord. 11-8-79; Ord. 9-16-86; Ord. 3-31-87, S3-8)

22-6.2 Specific Standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 22-3 or subsection 22-5.3b the following provisions are required:

- a. *Residential Construction.* New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.
- b. *Nonresidential Construction.* New construction or substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation or, together with attendant utility and sanitary facilities, be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify 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 22-5.3c.
- c. *Manufactured Homes.* 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.
- d. *Floodways.* Located within areas of special flood hazard established in Section 22-3 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:
 1. Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification by a professional registered engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
 2. If the subparagraph above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section.

3. 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 two-tenths (2/10') of a foot at any point.

(Ord. 6-18-74 § 45-7; Ord. 11-8-79; Ord. 9-16-86; Ord. 3-31-87, S3-8)

22-7 WARNING AND DISCLAIMER OF LIABILITY.

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 man-made or natural causes. This chapter does not imply land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damage. This chapter shall not create liability on the part of the Township or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

(Ord. 6-18-74 § 45-5; Ord. 11-8-79)

22-8 PENALTIES FOR NONCOMPLIANCE; INTERPRETATION OF ORDINANCE.

- a. 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 penalties stated in Chapter I, Section 1-5. Nothing herein contained shall prevent the Township from taking such other lawful action as is necessary to prevent or remedy any violation.
- b. This chapter is not intended to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. The provisions of this chapter shall apply to development as is permitted by the Rockaway Township Land Use and Development Code. In the interpretation and application of this chapter all provisions shall be considered as minimum requirements, liberally construed in favor of the governing body and deemed neither to limit nor repeal any other powers granted under State statutes or municipal ordinances.

(Ord. 6-18-74 § 45-4; Ord. 11-8-79; Ord. 9-16-86)