

## Chapter 154 - FLOOD DAMAGE PREVENTION

### ARTICLE I. - GENERAL PROVISIONS

#### Sec. 154-01. - Purpose; objectives.

(A) *Statement of purpose.* 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 area by the provisions designed to:

- (1) Restrict or prohibit 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;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of flood waters;
- (4) Control filling, grading, dredging and other development which may increase erosion of flood damage; and
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

(B) *Objectives.* The objectives of this chapter are:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money for costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, street and bridges located in floodplains;
- (6) To 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 flood blight; and
- (7) To insure that potential home buyers are notified that property is in a flood area.

(Ord. 800-92, passed 11-23-92)

#### Sec. 154-02. - Definitions.

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.

*Addition (to an existing building).* Any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.

*Appeal.* A request for a review of the chief building official's interpretation of any provision of this chapter or a request for a variance.

*Area of shallow flooding.* A designated AO or VO Zone on a community's Flood Insurance Rate Map (FIRM) with base flood depths from one to three 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.* The land in the floodplain within community subject to a one percent or greater chance of flooding in any given year.

*Base flood.* The flood having a one percent chance of being equaled or exceeded in any given year.

*Basement.* That portion of a building having its floor subgrade (below ground level) on all sides.

*Building.* Any structure built for support, shelter or enclosure for any occupancy or storage.

*Development.* Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations or permanent storage of materials or equipment.

*Elevated building.* A nonbasement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (post and piers), shear walls or breakaway walls.

*Existing construction.* Any structure for which the "start of construction" commenced before June 18, 1974.

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

- (1) The overflow of land or tidal waters; or source.
- (2) The unusual and rapid accumulation or runoff of surface waters from any source.

*Flood hazard boundary map (FHBM).* An official map of a community issued by the federal emergency management agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.

*Flood insurance rate map (FIRM).* An official map of a community on which the federal emergency management agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

*Flood insurance study.* The official report provided by the federal emergency management agency. The report contains flood profiles, as well as the flood boundary floodway map and the surface elevation of the base flood.

*Floodway.* The channel of a river or other water course and the adjacent land areas that must be reversed in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

*Floor.* The top surface of an enclosed area in a building (including basement), such as, top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

*Highest adjacent grade.* The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a building.

*Historic structure.* Any structure that is:

- (1) 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 in the national register;
- (2) 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;

- (3) 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
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
  - (a) By an approved state program as determined by the secretary of the interior, or
  - (b) Directly by the secretary of the interior in states without approval programs.

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

*Mean sea level.* The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this chapter, the term is synonymous with National Geodetic Vertical Datum (NGVD).

*National geodetic vertical datum (NGVD).* As corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.

*New construction.* Any structure for which the "start of construction" commenced after June 18, 1974. The term also includes any subsequent improvements to such structure.

*Start of construction.* (For other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. 97-348), includes substantial improvement, and means the date the building permit was issued, provided the actual *start of construction*, repair, reconstruction or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a building on a site, such as the pouring of slabs or footings, installation of piles, construction of columns or any work beyond the stage of excavation. 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 foundation 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 building. 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 alteration affects the external dimensions of the building.

*Structure.* A walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank or other man-made facilities or infrastructures.

*Substantial damage.* Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

*Substantial improvement.* Any combination of repairs, reconstruction, alteration or improvements to a building, taking place during (the life of a building), in which the cumulative cost equals or exceeds 50 percent of the market value of the building. The market value of the building should be the appraised value of the building prior to the start of the initial repair or improvement, or in the case of damage, the value of the building prior to the damage occurring. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. For the purposes of this definition, *substantial improvement* if considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not the alteration affects the external dimensions of the building. The term does not, however, include any project for improvement of a building required to comply with the existing health, sanitary or safety code specifications which have been identified by the code enforcement official and which are solely necessary to assure safe living conditions.

*Variance.* A grant of relief from the requirements of this chapter which permits construction in a manner otherwise prohibited by this chapter where specific enforcement would result in unnecessary hardship.

(Ord. 800-92, passed 11-23-92; amend. Ord. 871-2001, passed 2-12-01; amend. Ord. 873-2001, passed 6-11-01)

**Sec. 154-03. - Interpretation.**

In the interpretation and application of this chapter all provisions shall be considered as minimum requirements; liberally construed in factor of the governing body; and deemed neither to limit nor repeal any other powers granted under state statutes.

(Ord. 800-92, passed 11-23-92)

**Sec. 154-04. - Application; jurisdiction.**

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the City.

(Ord. 800-92, passed 11-23-92)

**Sec. 154-05. - Compliance.**

No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

(Ord. 800-92, passed 11-23-92)

**Cross reference— Penalty, § 154-99.**

**Sec. 154-06. - Basis for establishing the areas of special flood hazard.**

The areas of special flood hazard identified by the federal emergency management agency in its flood insurance study, dated November 4, 1987, with accompanying maps and other supporting data, and any revision thereto, are adopted by reference and declared to be a part of this chapter.

(Ord. 800-92, passed 11-23-92)

**Sec. 154-07. - 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. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard 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 or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

(Ord. 800-92, passed 11-23-92)

**Sec. 154-08. - Abrogation and greater restrictions.**

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

(Ord. 800-92, passed 11-23-92)

**ARTICLE II. - PERMITS**

**Sec. 154-20. - Development permit required; application.**

- (A) A development permit shall be required in conformance with the provisions of this chapter prior to the commencement of any development activities.
- (B) Permit procedures. Application for a development permit shall be made to the chief building official on forms furnished by him or her prior to any development activities, 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, earthen fill, storage of materials or equipment, drainage facilities and the location of the foregoing. Specifically, the following information is required:
  - (1) *Application stage.*
    - (a) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all buildings;
    - (b) Elevation in relation to mean sea level to which any nonresidential building will be flood-proofed;
    - (c) Certificate from a registered professional engineer or architect that the nonresidential flood-proofed building will meet the flood-proofing criteria set forth herein; and
    - (d) Description of the extent to which any water course will be altered or relocated as a result of proposed development.
  - (2) *Construction stage.* To provide a floor elevation or flood-proofing certification after the lowest floor is completed. Upon placement of the lowest floor, or flood-proofing by whatever construction means, it shall be the duty of the permit holder to submit to the building inspector a certification of the elevation of the lowest floor, as built, in relation to the mean sea level. This certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer, and certified by same. When flood-proofing is utilized for a particular building, the certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The Building Inspector shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make those corrections required hereby, shall be cause to issue a stop-work order for the project.

(Ord. 800-92, passed 11-23-92)

**Cross reference—**Penalty, § 154-99.

### ARTICLE III. - FLOOD HAZARD REDUCTION

#### Sec. 154-30. - General standards.

In all areas of special flood hazard the following provisions are required:

- (A) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (B) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
- (C) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.

- (D) Electrical, heating, ventilation, plumbing, 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;
- (E) New and replacement water supply systems shall be designed to minimize and eliminate infiltration of flood waters into the system;
- (F) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- (G) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;
- (H) Any alteration, repair, reconstruction or improvements to a building which is in compliance with the provisions of this chapter, shall meet the requirements of "new construction" as contained in this chapter; and
- (I) Any alteration, repair, reconstruction or improvements to a building which is not in compliance with the provisions of this chapter, shall be undertaken only if that nonconformity is not furthered, extended or replaced.

(Ord. 800-92, passed 11-23-92)

**Cross reference—**Penalty, § 154-99.

**Sec. 154-31. - Specific standards.**

In all areas of special flood hazard where base flood elevation data have been provided, as required by this chapter, the following provisions are required:

- (A) *Residential construction.* New construction or substantial improvement of any residential building shall have the lowest floor, including basement elevated no lower than one foot above the established base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with the provisions of this chapter. A professional engineer or architect shall thereafter certify the "as built" elevations of all new or substantially improved residential structures, including mean sea level elevation datum, which shall be submitted to the chief building official for inclusion in the City's records.
- (B) *Nonresidential construction.* New construction or substantial improvement of any commercial, industrial or nonresidential building shall have the lowest floor, including basement, elevated no lower than one foot above the established base flood elevation. Buildings located in all A-zones may be flood-proofed in lieu of being elevated provided that all areas of the building below the required elevation are water-tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A professional engineer or architect shall thereafter certify the "as built" elevations of all new or substantially improved nonresidential structures, including mean sea level elevation datum, which shall be submitted to the chief building official for inclusion in the City's records.
- (C) *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
  - (1) Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
    - (a) Provide 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;

- (b) The bottom of all openings shall be no higher than one foot above grade; and
- (c) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
- (2) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and
- (3) The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

(Ord. 800-92, passed 11-23-92)

**Cross reference—** Penalty, § 154-99.

Sec. 154-32. - Standards for subdivision proposals.

- (A) All subdivision proposals shall be consistent with the need to minimize the flood damage;
- (B) All subdivision proposals shall have the public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- (C) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and
- (D) Base flood elevation data shall be provided for subdivision proposals and other proposed development which is greater than the lesser of 50 lots or five acres.

(Ord. 800-92, passed 11-23-92)

**Cross reference—** Penalty, § 154-99.

#### ARTICLE IV. - ADMINISTRATION

Sec. 154-45. - Chief building official; duties and responsibilities.

- (A) The chief building official is hereby appointed to administer and implement the provisions of this chapter.
- (B) The duties of the chief building official shall include, but not be limited to:
  - (1) Review all development permits to assure that the permit requirements of this chapter have been satisfied.
  - (2) Advise permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit.
  - (3) Notify adjacent communities and the Florida department of community affairs and the South Florida water management district prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the federal emergency management agency.
  - (4) Assure that maintenance is provided within the altered or relocated portion of that watercourse so that the flood-carrying capacity is not diminished.

- (5) Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings as required herein.
- (6) Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved buildings have been flood-proofed, in accordance with the requirements of this chapter.
- (7) When flood-proofing is utilized for a particular building, the chief building official shall obtain certification from a registered professional engineer or architect in accordance with the requirements of this chapter.
- (8) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the chief building official shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this chapter.
- (9) When base flood elevation data or floodway data have not been provided in accordance with the requirements of this chapter, then the chief building 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 the provisions of this chapter.
- (10) All records pertaining to the provisions of this chapter shall be maintained in the office of the chief building official and shall be open for public inspection.

(Ord. 800-92, passed 11-23-92)

Sec. 154-46. - Variance procedures.

- (A) The Board of Adjustment, as established by the City, shall hear and decide appeals and requests for variances from the requirements of this chapter.
- (B) 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 chief building official in the enforcement or administration of this chapter.
- (C) Any person aggrieved by the decision of the Board of Adjustment or any other person may appeal such decision to the City Board of Appeals and thereafter to the Dade County Circuit Court, by common law writ of certiorari, as provided in the Florida appellate rules.
- (D) Variances may be issued for the repair or rehabilitation of historic structures (see § 154-02) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and the variance is the minimum to preserve the historic character and design of the structure.
- (E) In passing upon such applications, the Board of Adjustment shall consider all technical evaluations, all relevant factors and all standards specified in other sections of this chapter, and:
  - (1) The danger that materials may be swept onto other lands to the injury of others;
  - (2) The danger to life and property due to flooding or erosion damage;
  - (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - (4) The importance of the services provided by the proposed facility to the community;
  - (5) The necessity of the facility to a waterfront location, in the case of a functionally dependent facility;
  - (6) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
  - (7) The compatibility of the proposed use with existing and anticipated development;



- (8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
  - (9) The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - (10) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and effects of wave action, if applicable, expected at the site; and
  - (11) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- (F) Upon consideration of the factors listed in division (E)(1) through (11) of this section, 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.
- (G) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building;
  - (2) Variances shall only be issued upon a showing of good and sufficient cause; a determination that failure to grant the variance would result in exceptional hardship; and a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expenses, create a nuisance, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.
  - (3) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the building is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
  - (4) The chief building official shall maintain the records of all appeal actions and report any variances to the federal emergency management agency upon request.

(Ord. 800-92, passed 11-23-92)

#### Sec. 154-99. - Penalty.

Violations of the provisions of this chapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, 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 \$500.00 or imprisoned for not more than 60 days, or both; and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City from taking such other lawful actions as is necessary to prevent or remedy any violation.

(Ord. 800-92, passed 11-23-92)