ORDINANCE NO. C-14-26

AN ORDINANCE OF THE CITY OF FORT LAUDERDALE. FLORIDA. AMENDING CHAPTER 14 OF THE CODE OF ORDINANCES OF THE CITY OF FORT LAUDERDALE, FLORIDA, BY ADOPTING NEW FLOODPLAIN MANAGEMENT REGULATIONS. ADOPTING FLOOD HAZARD DESIGNATING Α FLOODPLAIN ADMINISTRATOR. ADOPTING PROCEDURES AND CRITERIA FOR DEVELOPMENT IN FLOOD HAZARD AREAS, AND FOR OTHER PURPOSES, AND PROVIDING FOR APPLICABILITY. REPEAL OF CONFLICTING ORDINANCE PROVISIONS. CODIFICATION, SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the Legislature of the State of Florida has, in Chapter 166 entitled Municipalities, Florida Statutes, conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, the Federal Emergency Management Agency has identified special flood hazard areas within the boundaries of City of Fort Lauderdale and such areas may be subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare; and

WHEREAS, the City of Fort Lauderdale was accepted for participation in the National Flood Insurance Program on November 3, 1973 and the City Commission desires to continue to meet the requirements of Title 44 Code of Federal Regulations, Sections 59 and 60, necessary for such participation; and

WHEREAS, the City Commission has determined that it is in the public interest to adopt the proposed floodplain management regulations that are coordinated with the National Flood Insurance Program and the Florida Building Code; and

WHEREAS, the City Commission is adopting a requirement for declarations of land restriction (nonconversion agreements) for enclosures below elevated buildings, and pursuant to Broward County Board of Rules and Appeals, Section 103, is formatting that requirement to coordinate with the National Flood Insurance Program and the Florida Building

Code; and

WHEREAS, the City Commission previously adopted requirements to impose certain limitations on enclosed areas below elevated buildings and to require accumulation of costs and improvement and repairs of buildings, based on issued permits, during a ten year period and, pursuant to Broward County Board of Rules and Appeals, Section 103, is formatting those requirements to coordinate with the National Flood Insurance Program and the Florida Building Code; and

WHEREAS, the City Commission is adopting a requirement to increase the minimum elevation requirement for buildings and structures and to limit the use of fill in flood hazard areas and, pursuant to Broward County Board of Rules and Appeals, Section 103, is formatting that requirement to coordinate with the Florida Building Code;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA:

<u>SECTION 1</u>. That each WHEREAS clause set forth above are true and correct and are hereby incorporated herein by reference.

<u>SECTION 2.</u> That Chapter 14, Flood Damage Prevention, of the Code of Ordinances of the City of Fort Lauderdale, Florida, is hereby amended, revised, reorganized and renamed as follows:

Chapter 14 FLOOD DAMAGE PREVENTION*

Article I. In General

Sec. 14-1. 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) means 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 means a request for a review of the interpretation by the city of any provision of this chapter or a request for a variance.

Area of shallow flooding means 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 means the land in the floodplain within a community subject to a one (1) percent or greater chance of flooding in any given year.

Base flood means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

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

Breakaway wall means 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 the supporting foundation system.

Building means any structure built for support, shelter, or as an enclosure for any occupancy or storage.

Coastal high hazard area means an area of special flood hazard extending from off shore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

Development means 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.

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

Existing construction means any structure for which the start of construction commenced before December 31, 1974.

Existing manufactured home park or subdivision means a manufactured home-park or subdivision for which the construction of facilities for serving 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 December 31, 1974.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, construction of streets, and either final site grading or the pouring of concrete pads).

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

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

Flood hazard boundary map (FHBM) means 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) means 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 means 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 water surface elevation of the base flood.

Floodway means 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 one (1) foot.

Floor means the top surface of an enclosed area in a building (including basement), i.e., 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.

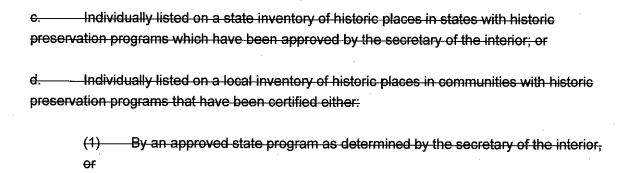
Functionally dependent facility means a facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair, or seafood processing facilities. The term does not include long-term storage, manufacture, sales or service facilities.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

Historic structure means any structure that is:

 a. Listed individually in the National Register of Historic Places or is preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the National Register;

b. Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district;



(2) Directly by the secretary of the interior in states without approved programs.

Mangrove stand means an assemblage of mangrove trees consisting primarily of low trees noted for their copious development of interlacing adventitious roots above the ground and which contains one (1) or more of the following species: black mangrove (Avicennie nitida); red mangrove (Rhizophora mangle); white mangrove (Languncularia racemosa) and buttonwood (Conocarpus erecta).

Manufactured home means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term also includes park trailers, travel trailers, and similar transportable structures placed on a site for one hundred eighty (180) consecutive days or longer and intended to be improved property.

Mean-sea level means 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, means a vertical control used as a reference for establishing varying elevations within the floodplain.

New construction means any structure for which the start of construction commenced after December 31, 1974. The term also includes any subsequent improvements to such structure.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after December 31, 1974.

Primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to crosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change form a relatively steep slope to a relatively mild slope.

Recreational vehicle means a vehicles which is:

- a. Built on a single chassis;
- b. Four hundred (400) square feet or less when measured at the largest horizontal projection;
- Designed to be self-propelled or permanently movable by a light duty truck, and;
- d. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping or travel use.

Reference feature-means the edge of a bluff or eroding frontal dune, or is such a feature is not present, the normal highwater-line or the seaward line of permanent vegetation if a highwater-line cannot be identified.

Sand dunes means naturally occurring accumulations of sand in ridges or mounds landward of the beach.

60-year setback means a distance equal to sixty (60) times the average annual long-term recession rate at a site; measured from the reference feature.

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 one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure (including a manufactured home) on a site,

such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the state 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, walkways or both; 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 sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

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

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

Substantial improvement means any combination of repairs, reconstruction, alteration or improvements to a building, taking place after December 31, 1974, in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the structure. The market value of the building should be (1) the appraised value of the building prior to the start of the initial repair or improvement, or (2) 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 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 building. The term does not, however, include either (1) any project for improvement of a building required to comply with 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, or (2) any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as an "historic structure."

Substantially improved existing manufactured home parks or subdivisions means manufactured home parks or subdivisions where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads, equals or exceed fifty (50) percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

30-year-setback means a distance equal to thirty (30) times the average annual long-term recession rate at a site, measured from the reference feature.

Variance is 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.

Zone of imminent collapse means an area subject to erosion adjacent to the shoreline of an ocean, bay, or lake and within a distance equal to ten (10) feet plus five (5) times the average annual long-term erosion rate for the site, measured from the reference feature.

Sec. 14-2. Findings of fact.

- (a) The flood hazard areas of the city are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- (b) These flood losses are caused by the cumulative effect of obstructions in floodplains 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, floodproofed or otherwise unprotected from the flood damages.

Sec. 14-3. 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 areas by 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 or 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.
Sec. 14-4.	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, which are generally undertaken at the expense of the general public;
	(4) To minimize prolonged business interruptions;
	(5) To minimize damage to public facilities and utilities located in floodplains, such as water and gas mains, electric, telephone and sewer lines, as well as streets and bridges;
	(6) To help maintain a stable tax base by providing for the sound use and development of

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flood prone areas in such a manner as to minimize flood blight areas;

- (7) To ensure that potential home buyers are notified that property is in a flood area; and
- (8) To prohibit the alteration of sand dunes and mangrove stands to reduce the potential for flood damage.

Sec. 14-5. Penalties for violation.

Violation 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 variances or special exceptions, shall constitute an offense. Any person who violates any provision of this chapter or who fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than two hundred fifty dollars (\$250.00) or imprisoned for not more than one hundred eighty (180) days, or both, and in addition, shall pay all costs and expenses involved in the case. Each day any violation continues shall be considered a separate offense. Nothing contained in this section shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation.

Sec. 14-6. Territorial applicability.

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

Sec. 14-7. Compliance.

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

Sec. 14-8. Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, if any provisions of this chapter conflict or overlap, the provision which imposes the more stringent restrictions shall prevail.

Sec. 14-9. Interpretation.

In the interpretation and application of this chapter all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the city commission; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 14-10. 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 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 on the part of any officer or employee of the city for any flood damages that result from reliance on this chapter or that are attributable to any administrative decision lawfully made under this chapter.

Sec. 14-11. 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 rate map (FIRM), dated December 15, 1982, with accompanying maps and other supporting data and any revisions thereto are adopted by reference and declared to be a part of this chapter.

Secs. 14-12 - 14-30. Reserved.

ARTICLE II. ADMINISTRATION AND ENFORCEMENT

Sec. 14-31. Director of the planning, zoning and building department designated; duties.

(a) The director of the planning, zoning, and building department of the city is hereby appointed as the official to administer and implement the provisions of this chapter.

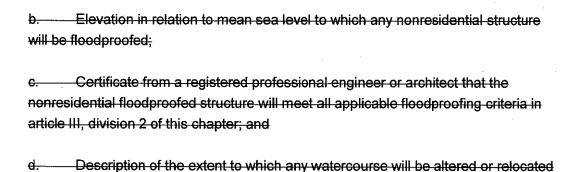
(b) limited	Duties of the director of the planning, zoning and building department shall include, but are not d to:
	(1) Reviewing all development permits to assure that the permit requirements of this chapter have been satisfied.
	(2) Advising a permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, requiring that copies of such permits be provided and maintained on file with the development permit.
	(3) Notifying adjacent communities and the state department of community affairs prior to any alteration or relocation of a watercourse and submitting evidence of such notification to the federal emergency management agency.
	(4) Assuring that maintenance is provided within the altered or relocated portion of such watercourse so that the floodcarrying capacity is not diminished.
	(5) Verifying and recording the actual elevation, in relation to mean sea level, of the lowest floor, including basement, of all new or substantially improved structures, in accordance with section 14-32(b)(2).
	(6) Verifying and recording the actual elevation, in relation to mean sea level, to which the new or substantially improved structures have been floodproofed, in accordance with section 14-32(b)(2).
	(7) In coastal hazard areas, certification shall be obtained from a registered professional engineer or architect that the structure is designed to be securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash.
	(8) In coastal high hazard areas, the building official shall review plans for adequacy of breakaway walls in accordance with section 14-73(7).

- (9) When floodproofing is utilized for a particular structure, the official shall-obtain certification from a registered professional engineer or architect, in accordance with section 14-32(b)(2).
- (10) 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 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.
- (11) When base flood elevation data or floodway data have not been provided in accordance with_section 14-11, the 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 article III, division 2 of this chapter.
- (12) All records pertaining to the provisions of this chapter shall be maintained in the office of the official and shall be open for public inspection.

Sec. 14-32. Development permit.

- (a) Required. A development permit shall be required in conformance with the provisions of this chapter prior to the commencement of any development activities.
- (b) Procedures. Application for a development permit shall be made to the building official on forms furnished by him prior to any development activities, and such application may include, but not be limited to, the requirement that the following plans be submitted in duplicate and 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:
 - (1) Application stage. The following shall be included in the application for a permit:

 a. Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all structures;

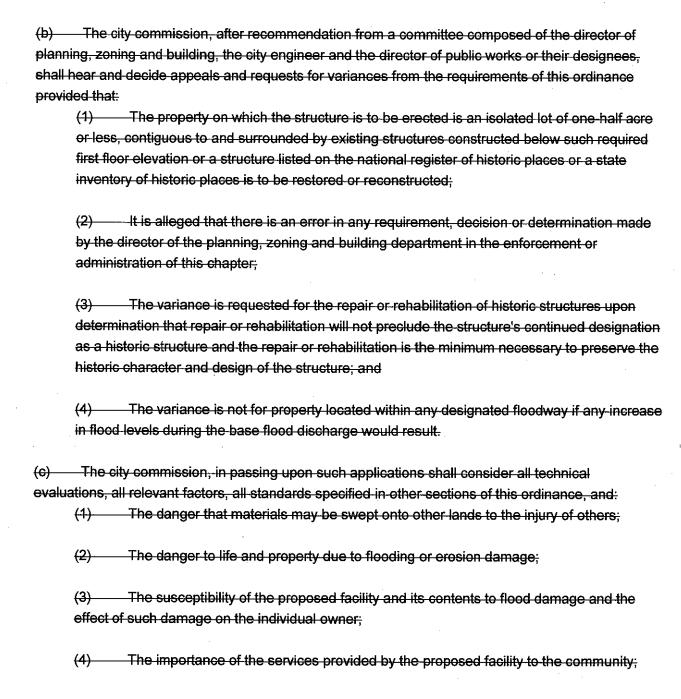


as a result of proposed development.

(2) Construction stage. The applicant must provide a floor elevation or floodproofing certification after the lowest floor is completed, or in instances where the structure is subject to the regulations applicable to coastal high hazard areas, after placement of the horizontal structural members of the lowest floor. Upon placement of the lowest floor, or floodproofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit holder to submit to the building official a certification of the elevation of the lowest floor, floodproofed elevation, or the elevation of the lowest portion of the horizontal structural members of the lowest floor. whichever is applicable, as built, in relation to mean sea level. The certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing 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 official shall-review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and in any case, prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make the required corrections shall be cause for the building official or his designee to issue a stop-work order for the project.

Sec. 14-33. Variances.

(a) Upon the submission of a written application, with a filing fee of fifty dollars (\$50.00), to the director of planning, zoning and building, a variance may be requested from the requirements of this chapter.

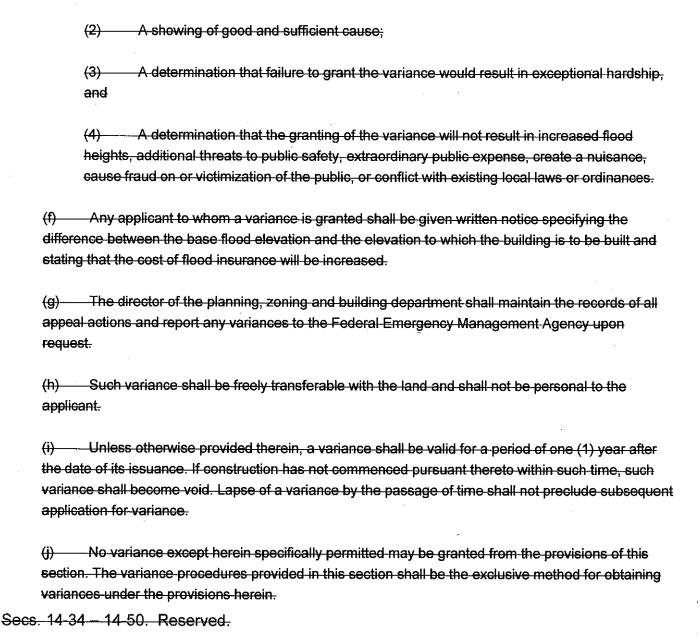


	(5) The necessity of the facility to a waterfront location in the case of a functionally dependent facility;
	(6) The availability of alternate locations, not subject to flooding or erosion damage, for the proposed use;
	(7) The compatibility of the proposed use with existing and anticipated development;
	(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 emergency vehicles;
	(10) The expected height, velocity duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
	(11) The cost 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.
	The city commission may, upon consideration of the factors listed [in] subsection (c), attach conditions to the granting of the variance as deemed necessary to further the purpose of this er.
(e) —	Variances shall only be issued upon:
	(1) A determination that the variance is the minimum necessary, considering that flood hazard, to afford relief, and in the instance of an historical building, a determination that the

variance is the minimum necessary so as not to destroy the historic character and design of the

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building;



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ARTICLE III. PROVISIONS FOR FLOOD HAZARD REDUCTION

DIVISION 1. GENERALLY

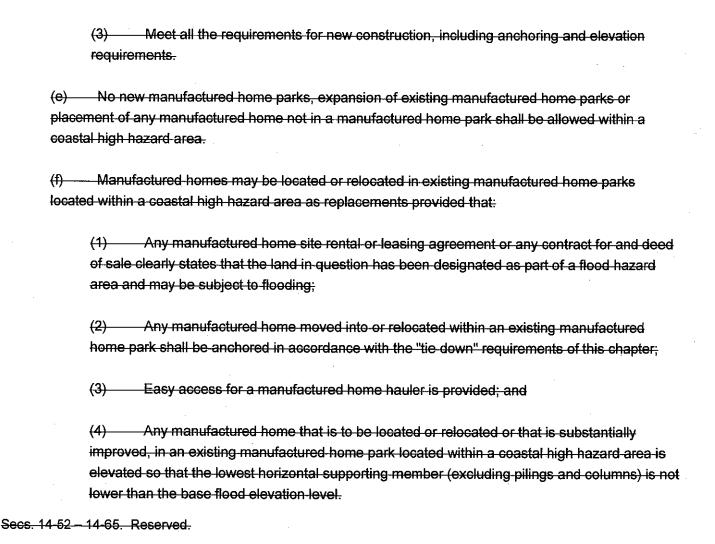
Sec.	14-51. Special standards for manufactured homes and recreational vehicles.
	(a) All manufactured homes placed, or substantially improved, on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, or in substantially improved manufactured home parks or subdivisions, must meet all the requirements for new construction, including elevation and anchoring.
	(b) All manufactured homes placed or substantially improved in an existing manufactured home park or on individual lots must be elevated so that:
	(1) The lowest floor of the manufactured home is elevated no lower than the base flood elevation (i.e., the 100-year flood-elevation.);
	(2) The manufactured home chassis is supported by reinforced piers or other foundation elements of no less than thirty-six (36) inches in height above grade. Load bearing foundation supports such as piers or pilings must be placed on stable soil or concrete footings no more than ten (10) feet apart;
	(3) Adequate surface drainage and easy-access for a manufactured home hauler are provided; and
	(4) Ground anchors for tie downs are provided and tie downs are installed.
	(c) Manufactured homes must be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement.
	(d) All recreational vehicles placed on sites shall either:
	(1) Be on the site for fewer than one hundred eighty (180) consecutive days;

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Be fully licensed and ready for highway use. A recreational vehicle is ready for

disconnect type utilities and security devices and has no permanently attached structures; or

highway use if it is on its wheels or jacking system, is attached to the site only by quick



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located no lower than the base flood elevation (i.e., the 100-year flood elevation).

DIVISION 2. CONSTRUCTION STANDARDS

Residential structures must be constructed so that the lowest floor, including basement, is

Sec. 14-66. Elevation requirements.

(b) Nonresidential structures shall be constructed so that the lowest floor, including basement, is located no lower than the base flood elevation.

Sec. 14-67. Fill.

If fill is used to raise the lowest floor to the base flood elevation:

- (1) Fill shall consist of compacted soil or small rock materials only. Sanitary landfills shall not be permitted.
- (2) Fill shall extend laterally-fifteen (15) feet beyond the building line from all points.
- (3) Fill slopes shall be no steeper than one (1) vertical on two (2) horizontal, unless substantiating data justifying steeper slopes are submitted to and approved by the director of the building and zoning department.
- (4) Fill shall be used only to the extent to which it does not adversely affect adjacent properties.

Sec. 14-68. Anchoring.

- (a) All structures shall be firmly anchored to prevent flotation, collapse or lateral movement,
- (b) All ducts, pipes, storage tanks and septic tanks shall be firmly anchored to prevent-flotation, collapse or lateral movement.

Sec. 14-69. Floors, walls and ceilings.

- (a) Wood flooring used at or below the base flood elevation level shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring grain, without incurring structural damage to the building.
- (b) All finished flooring used at or below the base flood elevation level shall be made of materials which are dimensionally stable and resistant to water damage resulting from submersion for, at least, a forty-eight hour period.

- (c) All carpeting or carpet cushions employed as a finished flooring surface at or below the base flood elevation level shall be made of materials which are resistant to water damage resulting from submersion for, at least, a five-day period.

 (d) Plywood used at or below the base flood elevation level shall be of the exterior or marine grade and of a water resistant or waterproof variety.

 (e) Ceilings in nonresidential structures located at or below the base flood elevation level shall
- have sufficient wet strength and be so installed as to survive inundation and should be provided with drainage holes to prevent collapse due to water trapped above the ceiling.

Sec. 14-70. Electrical and gas utility systems.

- (a) All electrical and gas water heaters, furnaces and other critical electrical and gas installations shall be permitted only at elevations at or above the base flood elevation level.
- (b) No electrical distribution panel shall be allowed at an elevation less than three (3) feet above the base flood elevation.
- (c) Separate electrical circuits shall serve levels below the base flood elevation level and shall be dropped from above.

Sec. 14-71. Plumbing.

- (a) The location, construction and installation of all potable water supply systems shall be in such a manner as to prevent contamination from flood waters during the base flood. No water supply well shall be located within the foundation walls of a building or structure used for human habitation.
- (b) Approved backflow preventers or devices shall be installed on main water-service lines, at water wells, and at all building entry locations to protect the system from backflow siphonage of flood waters or other contaminants.
- (c) Sanitary sewers and storm-draining systems that have openings below the base flood elevation shall be equipped with automatic back water valves or other automatic backflow devices that are installed in each discharge line passing through a building exterior wall.

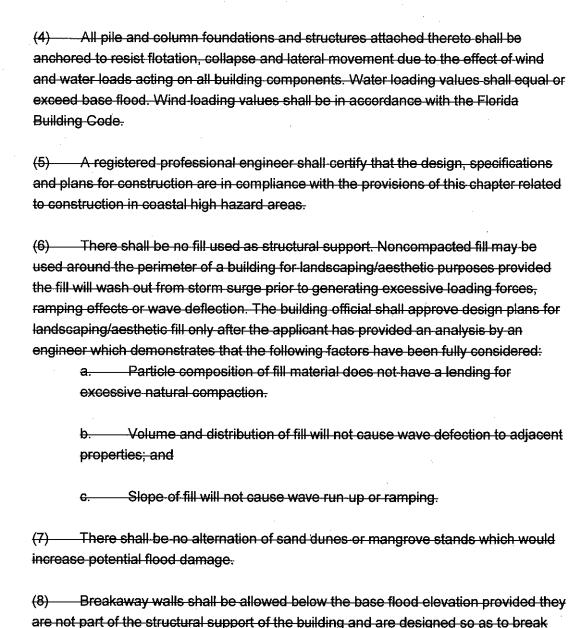
Sec. 14-72. Paints and adhesives.

- (a) Adhesives used at or below the base flood elevation level shall have a bonding strength that is unaffected by inundation.
- (b) Doors and all wood trim at or below the base flood elevation level shall be sealed with a waterproof paint or similar product.
- (c) Paints or other finishes used at or below the base flood elevation level shall be capable of surviving inundation.

Sec. 14-73. Special standards.

Special standards for construction in coastal high hazard areas located within the special flood hazard areas identified by the map and report referred to in 14-11 are areas known as coastal high hazard areas (V-zones). These coastal high hazard areas have special flood hazards associated with high velocity waters from tidal surge and hurricane wave wash and therefore the following special construction standards shall apply in the coastal high hazard areas as determined by the director of the planning, zoning and building department.

- (a) All buildings in a coastal high hazard area shall meet the following provisions:
 - (1) All buildings shall be located landward of the reach of the mean high tide.
 - (2)—All buildings shall be elevated so that the lowest supporting horizontal member (excluding pilings or columns) is located no lower than the base flood elevation level, with all space below the lowest supporting member open so as not to impede the floor or water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of abnormal wave action. Certification of the elevation of the bottom of the lowest supporting member must be verified and recorded.
 - (3) All buildings or structures shall be securely anchored on pilings or columns.



away, under abnormally high tides or wave action, without damage to the structural

specifications of the Florida Building Code are met. Specifications for breakaway walls

integrity of the building on which they are to be used and provided the design

should be determined in consultation with local engineers and architects and based on local conditions. Standard practice is to use a loading of twenty (20) to thirty (30) pounds per square foot (psf) as wind load on a vertical panel facing directly into the wind. This load would correspond to a wind speed of about one hundred (100) miles per hour and should be the minimum load which would cause the panels to break away. The maximum loading which would not cause failure to the superstructure is more difficult to determine but is probably about fifty (50) to seventy five (75) pounds psf. Designation of this limit should be based on such factors as material, cross-section and spacing of pilings or columns upon which the structure sits, the elevation above the ground and other assumed loadings on the structure.

- (9) Lattice work or decorative screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to break away under high tides or wave action without damage to the structural integrity of the building and provided that:
 - a. No solid wall shall-be allowed; and
 - Material is lattice or mesh screening only.
- (10) Such enclosed space (lattice or screening) shall not be designed to be used for human habitation, but may be designed to be used only for the parking of vehicles, building access, or limited storage of maintenance equipment used on the premises.
- (11) Prior to construction, plans for lattice work or screening must be approved by the building official.
- (12) Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except with lattice work or decorative screening.

Sec. 14-74. Reserved.

Editor's note-

Ord. No. C-93-35, § 6, adopted June 6, 1993, amended §§ 14-73 and 14-74 to read as herein set out in current § 14-73. See the Code Comparative Table.

Sec. 14-75. Streams without established base flood elevations, floodways or both.

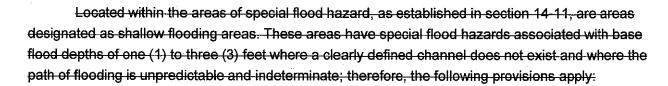
Located within the areas of special flood hazard established in section 14-11, where small streams exist but where no base flood data have been provided or where no floodways have been provided, the following provisions apply:

- (1) No encroachments, including fill material or structures, shall be located within a distance of the stream bank equal to two (2) times the width of the stream at the top of bank or twenty (20) feet each side from top of bank, whichever is greater, unless certification by a registered professional engineer is provided, demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) New construction or substantial improvements of structures shall be elevated or floodproofed to elevations established in accordance with section 14-31(b)(11).

Sec. 14-76. Subdivision proposals.

- (a) All subdivision proposals shall be consistent with the need to minimize flood damage.
- (b) All subdivision proposals shall have 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.
- (d) Base flood elevation data shall be provided for subdivision proposals and any other proposed development (including manufactured home parks and subdivisions) which is greater than the lesser of fifty (50) lots or five (5) acres.

Sec. 14-77. Areas of shallow flooding (AO Zones).



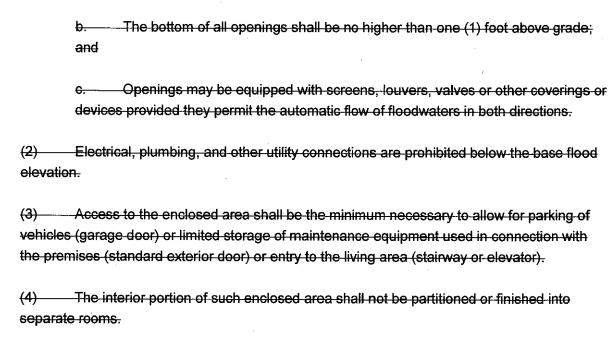
- (1) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to the depth number specified on the flood insurance rate map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of non-residential structures shall:

 a. Have the lowest floor, including basement, elevated to the depth number specified on the flood insurance rate map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement shall be elevated at least two (2) feet above the highest adjacent grade; or,
 - b. Together with attendant utility and sanitary facilities be completely floodproofed to or above that level so that any space below that level 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.

Sec. 14-78. 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 preclude finished living space and 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 (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;



Chapter 14

FLOODPLAIN MANAGEMENT

Article I. In General

Sec. 14-1. Definitions.

- (a) Unless otherwise expressly stated, the following words and terms shall, for the purposes of this ordinance, have the meanings shown in this section.
- (b) Terms defined in the Florida Building Code. Where terms are not defined in this ordinance and are defined in the Florida Building Code, such terms shall have the meanings ascribed to them in that code.
- (c) <u>Terms not defined. Where terms are not defined in this ordinance or the Florida Building Code, such terms shall have ordinarily accepted meanings such as the context implies.</u>

Alteration of a watercourse. A dam, impoundment, channel relocation, change in channel

alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

<u>Appeal.</u> A request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance or a request for a variance.

ASCE 24. A standard titled Flood Resistant Design and Construction that is referenced by the Florida Building Code. ASCE 24 is developed and published by the American Society of Civil Engineers, Reston, VA.

Base flood. A flood having a 1-percent chance of being equaled or exceeded in any given year. [Also defined in FBC, B, Section 1612.2.] The base flood is commonly referred to as the "100-year flood" or the "1-percent-annual chance flood."

<u>Base flood elevation</u>. The elevation of the base flood, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) or other datum specified on the Flood Insurance Rate Map (FIRM). [Also defined in FBC, B, Section 1612.2.]

<u>Basement.</u> The portion of a building having its floor subgrade (below ground level) on all sides. [Also defined in FBC, B, Section 1612.2.]

<u>Coastal construction control line</u>. The line established by the State of Florida pursuant to Section 161.053, F.S., and recorded in the official records of the community, which defines that portion of the beach-dune system subject to severe fluctuations based on a 100-year storm surge, storm waves or other predictable weather conditions.

Coastal high hazard area. A special flood hazard area extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. Coastal high hazard areas are also referred to as "high hazard areas subject to high velocity wave action" or "V Zones" and are designated on Flood Insurance Rate Maps (FIRM) as Zone V1-V30, VE, or V. [Note: The FBC,B defines and uses the term "flood hazard areas subject to high velocity wave action" and the FBC,R uses the term "coastal high hazard areas."]

<u>Crown of Road.</u> The elevation of the highest surface of street pavement within the right-of-way abutting the property relative to the National Geodetic Vertical Datum (NGVD) or North America Vertical Datum (NAVD), unless otherwise approved by the Flood Plain Manager.

Declaration of Land Restriction (Nonconversion Agreement). A form provided by the

Floodplain Administrator to be signed by the owner and recorded on the property deed in Official Records of the Clerk of Courts, for the owner to agree not to convert or modify an enclosure below elevated building in any manner that is inconsistent with the terms of the building permit and these regulations, and to grant the City the right to inspect.

<u>Design flood.</u> The flood associated with the greater of the following two areas: [Also defined in FBC, B, Section 1612.2.]

- <u>a.</u> Area with a floodplain subject to a 1-percent or greater chance of flooding in any year; or
- b. Area designated as a flood hazard area on the community's flood hazard map, or otherwise legally designated.

Design flood elevation. The elevation of the "design flood," including wave height, relative to the datum specified on the community's legally designated flood hazard map. In areas designated as Zone AO, the design flood elevation shall be the elevation of the highest existing grade of the building's perimeter plus the depth number (in feet) specified on the flood hazard map. In areas designated as Zone AO where the depth number is not specified on the map, the depth number shall be taken as being equal to two (2) feet. [Also defined in FBC, B, Section 1612.2.]

<u>Development.</u> Any man-made change to improved or unimproved real estate, including but not limited to, buildings or other structures, tanks, temporary structures, temporary or permanent storage of equipment or materials, mining, dredging, filling, grading, paving, excavations, drilling operations or any other land disturbing activities.

<u>Encroachment</u>. The placement of fill, excavation, buildings, permanent structures or other development into a flood hazard area which may impede or alter the flow capacity of riverine flood hazard areas.

<u>Existing building and existing structure</u>. Any buildings and structures for which the "start of construction" commenced before November 3, 1972. [Also defined in FBC, B, Section 1612.2.]

Existing manufactured home park or subdivision. 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 November 3, 1972.

Expansion to an existing manufactured home park or subdivision. The preparation of

additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

<u>Federal Emergency Management Agency (FEMA)</u>. The federal agency that, in addition to carrying out other functions, administers the National Flood Insurance Program.

<u>Flood or flooding.</u> A general and temporary condition of partial or complete inundation of normally dry land from: [Also defined in FBC, B, Section 1612.2.]

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

<u>Flood damage-resistant materials</u>. Any construction material capable of withstanding direct and prolonged contact with floodwaters without sustaining any damage that requires more than cosmetic repair. [Also defined in FBC, B, Section 1612.2.]

Flood hazard area. The greater of the following two areas: [Also defined in FBC, B, Section 1612.2.]

- <u>a.</u> The area within a floodplain subject to a 1-percent or greater chance of flooding in any year.
- <u>b.</u> The area designated as a flood hazard area on the community's flood hazard map, or otherwise legally designated.

<u>Flood Insurance Rate Map (FIRM)</u>. The official map of the community on which the Federal Emergency Management Agency has delineated both special flood hazard areas and the risk premium zones applicable to the community. [Also defined in FBC, B, Section 1612.2.]

Flood Insurance Study (FIS). The official report provided by the Federal Emergency Management Agency that contains the Flood Insurance Rate Map, the Flood Boundary and Floodway Map (if applicable), the water surface elevations of the base flood, and supporting technical data. [Also defined in FBC, B, Section 1612.2.]

<u>Floodplain Administrator.</u> The office or position designated and charged with the administration and enforcement of this ordinance (may be referred to as the Floodplain Manager).

Floodplain development permit or approval. An official document or certificate issued by the community, or other evidence of approval or concurrence, which authorizes performance of specific development activities that are determined to be compliant with this ordinance.

<u>Florida Building Code.</u> The family of codes adopted by the Florida Building Commission, including: Florida Building Code, Building; Florida Building Code, Residential; Florida Building Code, Existing Building; Florida Building Code, Mechanical; Florida Building Code, Plumbing; Florida Building Code, Fuel Gas.

Functionally dependent use. A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water, including only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities; the term does not include long-term storage or related manufacturing facilities.

<u>Highest adjacent grade.</u> The highest natural elevation of the ground surface prior to construction next to the proposed walls or foundation of a structure.

<u>Historic structure</u>. Any structure that is determined eligible for the exception to the flood hazard area requirements of the Florida Building Code, Existing Building, Chapter 11 Historic Buildings.

<u>Letter of Map Change (LOMC)</u>. An official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:

- a. Letter of Map Amendment (LOMA): An amendment based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.
- b. Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.
- c. Letter of Map Revision Based on Fill (LOMR-F): A determination that a structure or parcel of land has been elevated by fill above the base flood elevation and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.
- d. Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed flood protection project or other project complies with the minimum NFIP requirements for such projects with respect to delineation of

special flood hazard areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.

<u>Light-duty truck.</u> As defined in 40 C.F.R. 86.082-2, any motor vehicle rated at 8,500 pounds Gross Vehicular Weight Rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of forty-five (45) square feet or less, which is:

- <u>a.</u> <u>Designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or </u>
- c. Available with special features enabling off-street or off-highway operation and use.

Lowest floor. The lowest floor of the lowest enclosed area of a building or structure, including basement, but excluding any unfinished or flood-resistant enclosure, other than a basement, usable solely for vehicle parking, building access or limited storage provided that such enclosure is not built so as to render the structure in violation of the non-elevation requirements of the Florida Building Code or ASCE 24. [Also defined in FBC, B, Section 1612.2.]

Manufactured home. A structure, transportable in one or more sections, which is eight (8) feet or more in width and greater than four hundred (400) square feet, and which is built on a permanent, integral chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle" or "park trailer." [Also defined in 15C-1.0101, F.A.C.]

<u>Manufactured home park or subdivision.</u> A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Market value. The price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts. As used in this ordinance, the term refers to the market value of buildings and structures, excluding the land and other improvements on the parcel. Market value may be established by a qualified independent appraiser, Actual Cash Value (replacement cost depreciated for age and quality of construction), or tax assessment value

adjusted to approximate market value by a factor provided by the Property Appraiser.

<u>New construction</u>. For the purposes of administration of this ordinance and the flood resistant construction requirements of the Florida Building Code, structures for which the "start of construction" commenced on or after November 3, 1972 and includes any subsequent improvements to such structures.

New manufactured home park or subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after November 3, 1972.

Park trailer. A transportable unit which has a body width not exceeding fourteen (14) feet and which is built on a single chassis and is designed to provide seasonal or temporary living quarters when connected to utilities necessary for operation of installed fixtures and appliances. [Defined in 320.01, F.S.]

Recreational vehicle. A vehicle, including a park trailer, which is: [See Section 320.01, F.S.]

- a. Built on a single chassis;
- b. Four hundred (400) square feet or less when measured at the largest horizontal projection;
- c. Designed to be self-propelled or permanently towable by a light-duty truck; and
- d. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

<u>Sand dunes.</u> Naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Special flood hazard area. An area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. Special flood hazard areas are shown on FIRMs as Zone A, AO, A1-A30, AE, A99, AH, V1-V30, VE or V. [Also defined in FBC, B Section 1612.2.]

Start of construction. The date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement is within one hundred eighty (180) days of the date of the issuance. The actual start of construction means either the first placement of permanent construction of a building (including a manufactured home) on a

site, such as the pouring of slab or footings, the installation of piles, the construction of columns.

Permanent construction does not include land preparation (such as clearing, grading, or filling), the installation of streets or walkways, excavation for a basement, footings, piers, or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main buildings. For a substantial improvement, the actual "start of construction" means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building. [Also defined in FBC, B Section 1612.2.]

<u>Substantial damage</u>. Damage of any origin sustained by a building or structure whereby the cost of restoring the building or structure to its before-damaged condition would equal or exceed 50 percent of the market value of the building or structure before the damage occurred. [Also defined in FBC, B Section 1612.2.]

Substantial improvement. Any repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure, or combination of any repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure taking place during a ten (10) year period, the cumulative cost of which equals or exceeds 50 percent of the market value of the building or structure before the improvement or repair is started. If the structure has incurred "substantial damage," any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions.

Variance. A grant of relief from the requirements of this ordinance, or the flood resistant construction requirements of the Florida Building Code, which permits construction in a manner that would not otherwise be permitted by this ordinance or the Florida Building Code.

<u>Watercourse</u>. A river, creek, stream, channel or other topographic feature in, on, through, or over which water flows at least periodically.

Sec. 14-2. In General.

- (a) <u>Title. These regulations shall be known as the Floodplain Management Ordinance of City of Fort Lauderdale hereinafter referred to as "this ordinance."</u>
- (b) Scope. The provisions of this ordinance shall apply to all development that is wholly within or partially within any flood hazard area, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling,

enlargement, improvement, replacement, repair, relocation or demolition of buildings, structures, and facilities that are exempt from the *Florida Building Code*; placement, installation, or replacement of manufactured homes and manufactured buildings; installation or replacement of tanks; placement of recreational vehicles; installation of swimming pools; and any other development.

- (c) Intent. The purposes of this ordinance and the flood load and flood resistant construction requirements of the *Florida Building Code* are to establish minimum requirements to safeguard the public health, safety, and general welfare and to minimize public and private losses due to flooding through regulation of development in flood hazard areas to:
 - (1) <u>Minimize unnecessary disruption of commerce, access and public service during times of flooding; and,</u>
 - (2) Require the use of appropriate construction practices in order to prevent or minimize future flood damage; and,
 - (3) Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials, and other development which may increase flood damage or erosion potential; and,
 - (4) Manage the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain; and,
 - (5) Minimize damage to public and private facilities and utilities; and,
 - (6) Help maintain a stable tax base by providing for the sound use and development of flood hazard areas; and,
 - (7) Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and,
 - (8) Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22.
- (d) Coordination with the *Florida Building Code*. This ordinance is intended to be administered and enforced in conjunction with the *Florida Building Code*. Where cited, ASCE 24 refers to the edition of the standard that is referenced by the *Florida Building Code*.
- (e) Warning. The degree of flood protection required by this ordinance and the *Florida Building Code*, as amended by this community, is considered the minimum reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will

occur. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside of mapped special flood hazard areas, or that uses permitted within such flood hazard areas, will be free from flooding or flood damage. The flood hazard areas and base flood elevations contained in the Flood Insurance Study and shown on Flood Insurance Rate Maps and the requirements of Title 44 Code of Federal Regulations, Sections 59 and 60 may be revised by the Federal Emergency Management Agency, requiring this community to revise these regulations to remain eligible for participation in the National Flood Insurance Program. No guaranty of vested use, existing use, or future use is implied or expressed by compliance with this ordinance.

(f) Disclaimer of Liability. This ordinance shall not create liability on the part of the City Commission of City of Fort Lauderdale or by any officer or employee thereof for any flood damage that results from reliance on this ordinance or any administrative decision lawfully made thereunder.

Sec. 14-3. Applicability.

- (a) General. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.
- (b) Areas to which this ordinance applies. This ordinance shall apply to all flood hazard areas within the City of Fort Lauderdale as established in Section 14-3.(c) of this ordinance.
- (c) Basis for establishing flood hazard areas. The Flood Insurance Study for Broward County, Florida and Incorporated Areas dated August 18, 2014, and all subsequent amendments and revisions, and the accompanying Flood Insurance Rate Maps (FIRM), and all subsequent amendments and revisions to such maps, are adopted by reference as a part of this ordinance and shall serve as the minimum basis for establishing flood hazard areas. Studies and maps that establish flood hazard areas are on file at the Department of Sustainable Development 700 NW 19th Avenue, Fort Lauderdale, Florida 33311.
- (d) Submission of additional data to establish flood hazard areas. To establish flood hazard areas and base flood elevations, pursuant to Section 14-6 of this ordinance the Floodplain Administrator may require submission of additional data. Where field surveyed topography prepared by a Florida licensed professional surveyor or digital topography accepted by the community indicates that ground elevations:
 - (1) Are below the closest applicable base flood elevation, even in areas not delineated as a special flood hazard area on a FIRM, the area shall be considered as flood hazard area and subject to the requirements of this ordinance and, as applicable, the requirements of the Florida Building Code.

- (2) Are above the closest applicable base flood elevation, the area shall be regulated as a special flood hazard area unless the applicant obtains a Letter of Map Change that removes the area from the special flood hazard area.
- (e) Other laws. The provisions of this ordinance shall not be deemed to nullify any provisions of local, state or federal law.
- (f) Abrogation and greater restrictions. This ordinance supersedes any ordinance in effect for management of development in flood hazard areas. However, it is not intended to repeal or abrogate any existing ordinances including but not limited to land development regulations, zoning ordinances, storm water management regulations, or the Florida Building Code. In the event of a conflict between this ordinance and any other ordinance, the more restrictive shall govern. This ordinance shall not impair any deed restriction, covenant or easement, but any land that is subject to such interests shall also be governed by this ordinance.
- (g) Interpretation. In the interpretation and application of this ordinance, all provisions shall be:
 - (1) Considered as minimum requirements; and,
 - (2) Liberally construed in favor of the governing body; and
 - (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 14-4. Duties and powers of the floodplain administrator.

- (a) Designation. The Floodplain Manager, a position in the Department of Sustainable Development, is designated as the Floodplain Administrator. The Floodplain Administrator may delegate performance of certain duties to other employees. The Floodplain Manager, Building Official, Assistant Building Official, and Chief Building Inspector shall obtain and maintain Certified Floodplain Manager (CFM) certification from the Association of State Floodplain Managers, Inc.
- (b) General. The Floodplain Administrator is authorized and directed to administer and enforce the provisions of this ordinance. The Floodplain Administrator shall have the authority to render interpretations of this ordinance consistent with the intent and purpose of this ordinance and may establish policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall not have the effect of waiving requirements specifically provided in this ordinance without the granting of a variance pursuant to Section 14-8 of this ordinance.

- (c) <u>Applications and permits. The Floodplain Administrator, in coordination with other pertinent offices of the community, shall:</u>
 - (1) Review applications and plans to determine whether proposed new development will be located in flood hazard areas; and,
 - (2) Review applications for modification of any existing development in flood hazard areas for compliance with the requirements of this ordinance; and,
 - (3) Interpret flood hazard area boundaries where such interpretation is necessary to determine the exact location of boundaries; a person contesting the determination shall have the opportunity to appeal the interpretation; and,
 - (4) Provide available flood elevation and flood hazard information; and,
 - (5) <u>Determine whether additional flood hazard data shall be obtained from other sources or shall be developed by an applicant; and,</u>
 - (6) Review applications to determine whether proposed development will be reasonably safe from flooding; and,
 - (7) Issue floodplain development permits or approvals for development other than buildings and structures that are subject to the *Florida Building Code*, including buildings, structures and facilities exempt from the *Florida Building Code*, when compliance with this ordinance is demonstrated, or disapprove the same in the event of noncompliance; and
 - (8) Coordinate with and provide comments to the Building Official to assure that applications, plan reviews, and inspections for buildings and structures in flood hazard areas comply with the applicable provisions of this ordinance.
- (d) Substantial improvement and substantial damage determinations. For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:
 - (1) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of

- repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
- (2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
- (3) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "substantial improvement; and
- (4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Florida Building Code and this ordinance is required.
- (e) Modifications of the strict application of the requirements of the Florida Building Code. The Floodplain Administrator shall review requests submitted to the Building Official that seek approval to modify the strict application of the flood load and flood resistant construction requirements of the Florida Building Code to determine whether such requests require the granting of a variance pursuant to Section 14-8 of this ordinance.
- (f) Notices and orders. The Floodplain Administrator shall coordinate with appropriate local agencies for the issuance of all necessary notices or orders to ensure compliance with this ordinance.
- (g) Inspections. The Floodplain Administrator shall make the required inspections as specified in Section 14-7 of this ordinance for development that is not subject to the Florida Building Code, including buildings, structures and facilities exempt from the Florida Building Code. The Floodplain Administrator shall inspect flood hazard areas to determine if development is undertaken without issuance of a permit.
- (h) Other duties of the Floodplain Administrator. The Floodplain Administrator shall have other duties, including but not limited to:
 - (1) Establish, in coordination with the Building Official, procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to Section 14-4.(d) of this ordinance;
 - (2) Require that applicants proposing alteration of a watercourse notify adjacent communities and the Florida Division of Emergency Management, State

- Floodplain Management Office, and submit copies of such notifications to the Federal Emergency Management Agency (FEMA);
- (3) Require applicants who submit hydrologic and hydraulic engineering analyses to support permit applications to submit to FEMA the data and information necessary to maintain the Flood Insurance Rate Maps if the analyses propose to change base flood elevations, or flood hazard area boundaries, such submissions shall be made within six (6) months of such data becoming available;
- (4) Review required design certifications and documentation of elevations specified by this ordinance and the *Florida Building Code* and this ordinance to determine that such certifications and documentations are complete;
- (5) Notify the Federal Emergency Management Agency when the corporate boundaries of City of Fort Lauderdale are modified; and
- (6) Advise applicants for new buildings and structures, including substantial improvements that are located in any unit of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act (Pub. L. 97-348) and the Coastal Barrier Improvement Act of 1990 (Pub. L. 101-591) that federal flood insurance is not available on such construction; areas subject to this limitation are identified on Flood Insurance Rate Maps as "Coastal Barrier Resource System Areas" and "Otherwise Protected Areas."
- (i) Floodplain management records. Regardless of any limitation on the period required for retention of public records, the Floodplain Administrator shall maintain and permanently keep and make available for public inspection all records that are necessary for the administration of this ordinance and the flood resistant construction requirements of the Florida Building Code, including Flood Insurance Rate Maps; Letters of Change; records of issuance of permits and denial of permits; determinations of whether proposed work constitutes substantial improvement or repair of substantial damage; required design certifications and documentation of elevations specified by the Florida Building Code and this ordinance; notifications to adjacent communities, FEMA, and the state related to alterations of watercourses; assurances that the flood carrying capacity of altered watercourses will be maintained; documentation related to appeals and variances, including justification for issuance or denial; and records of enforcement actions taken pursuant to this ordinance and the flood resistant construction requirements of the Florida Building Code. These records shall be available for public inspection at the Department of Sustainable Development 700 NW 19th Avenue, Fort Lauderdale, Florida 33311.

Sec. 14-5. Permits.

- (a) Permits required. Any owner or owner's authorized agent (hereinafter "applicant") who intends to undertake any development activity within the scope of this ordinance, including buildings, structures and facilities exempt from the *Florida Building Code*, which is wholly within or partially within any flood hazard area shall first make application to the Floodplain Administrator, and the Building Official if applicable, and shall obtain the required permit(s) and approval(s). No such permit or approval shall be issued until compliance with the requirements of this ordinance and all other applicable codes and regulations has been satisfied.
- (b) Floodplain development permits or approvals. Floodplain development permits or approvals shall be issued pursuant to this ordinance for any development activities not subject to the requirements of the Florida Building Code, including buildings, structures and facilities exempt from the Florida Building Code. Depending on the nature and extent of proposed development that includes a building or structure, the Floodplain Administrator may determine that a floodplain development permit or approval is required in addition to a building permit.
- (c) Buildings, structures and facilities exempt from the Florida Building Code. Pursuant to the requirements of federal regulation for participation in the National Flood Insurance Program (44 C.F.R. Sections 59 and 60), floodplain development permits or approvals shall be required for the following buildings, structures and facilities that are exempt from the Florida Building Code and any further exemptions provided by law, which are subject to the requirements of this ordinance:
 - (1) Railroads and ancillary facilities associated with the railroad.
 - (2) Nonresidential farm buildings on farms, as provided in section 604.50, F.S.
 - (3) Temporary buildings or sheds used exclusively for construction purposes.
 - (4) Mobile or modular structures used as temporary offices.
 - (5) Those structures or facilities of electric utilities, as defined in section 366.02, F.S., which are directly involved in the generation, transmission, or distribution of electricity.
 - (6) Chickees constructed by the Miccosukee Tribe of Indians of Florida or the Seminole Tribe of Florida. As used in this paragraph, the term "chickee" means an open-sided wooden hut that has a thatched roof of palm or palmetto or other traditional materials, and that does not incorporate any electrical, plumbing, or other non-wood features.

- (7) Family mausoleums not exceeding two hundred fifty (250) square feet in area which are prefabricated and assembled on site or preassembled and delivered on site and have walls, roofs, and a floor constructed of granite, marble, or reinforced concrete.
- (8) Temporary housing provided by the Department of Corrections to any prisoner in the state correctional system.
- (9) Structures identified in section 553.73(10)(k), F.S., are not exempt from the *Florida Building Code* if such structures are located in flood hazard areas established on Flood Insurance Rate Maps
- (e) Application for a permit or approval. To obtain a floodplain development permit or approval the applicant shall first file an application in writing on a form furnished by the community. The information provided shall:
 - (1) Identify and describe the development to be covered by the permit or approval.
 - (2) Describe the land on which the proposed development is to be conducted by legal description, street address or similar description that will readily identify and definitively locate the site.
 - (3) Indicate the use and occupancy for which the proposed development is intended.
 - (4) Be accompanied by a site plan or construction documents as specified in Section 14-6 of this ordinance.
 - (5) State the valuation of the proposed work.
 - (6) For projects that propose to enclose areas under elevated buildings, a signed Declaration of Land Restriction (Non-conversion Agreement) shall be required; the agreement shall be recorded on the property deed prior to issuance of the Certificate of Occupancy.
 - (7) Be signed by the applicant or the applicant's authorized agent.
 - (8) Give such other data and information as required by the Floodplain Administrator.
- (f) Validity of permit or approval. The issuance of a floodplain development permit or approval pursuant to this ordinance shall not be construed to be a permit for, or approval of, any violation of this ordinance, the Florida Building Codes, or any other ordinance of this community. The issuance of permits based on submitted applications, construction documents, and information shall not prevent the Floodplain Administrator from requiring the correction of errors

and omissions.

- (g) Expiration. A floodplain development permit or approval shall become invalid unless the work authorized by such permit is commenced within one hundred eighty (180) days after its issuance, or if the work authorized is suspended or abandoned for a period of one hundred eighty (180) days after the work commences. Extensions for periods of not more than one hundred eighty (180) days each shall be requested in writing and justifiable cause shall be demonstrated.
- (h) Suspension or revocation. The Floodplain Administrator is authorized to suspend or revoke a floodplain development permit or approval if the permit was issued in error, on the basis of incorrect, inaccurate or incomplete information, or in violation of this ordinance or any other ordinance, regulation or requirement of this community.
- (i) Other permits required. Floodplain development permits and building permits shall include a condition that all other applicable state or federal permits be obtained before commencement of the permitted development, including but not limited to the following:
 - (1) The South Florida Water Management District; section 373.036, F.S.
 - (2) Florida Department of Health for onsite sewage treatment and disposal systems: section 381.0065, F.S. and Chapter 64E-6, F.A.C.
 - (3) Florida Department of Environmental Protection for construction, reconstruction, changes, or physical activities for shore protection or other activities seaward of the coastal construction control line; section 161.141, F.S.
 - (4) Florida Department of Environmental Protection for activities subject to the Joint Coastal Permit; section 161.055, F.S.
 - (5) Florida Department of Environmental Protection for activities that affect wetlands and alter surface water flows, in conjunction with the U.S. Army Corps of Engineers; Section 404 of the Clean Water Act.
 - (6) Federal permits and approvals.

Sec. 14-6. Site plans and construction documents.

- (a) Information for development in all areas. The site plan or construction documents for any development subject to the requirements of this ordinance shall be drawn to scale and shall include, as applicable to the proposed development:
 - (1) Delineation of flood hazard areas, and flood zone(s), base flood elevation(s), and

- ground elevations if necessary for review of the proposed development.
- (2) Location of the proposed activity and proposed structures, and locations of existing buildings and structures; in coastal high hazard areas, new buildings shall be located landward of the reach of mean high tide.
- (3) Location, extent, amount, and proposed final grades of any filling, grading, or excavation.
- (4) Where the placement of fill is proposed, the amount, type, and source of fill material; compaction specifications; a description of the intended purpose of the fill areas; and evidence that the proposed fill areas are the minimum necessary to achieve the intended purpose. Use of fill to elevate buildings and structures is not permitted.
- (5) Delineation of the Coastal Construction Control Line or notation that the site is seaward of the coastal construction control line, if applicable.
- (6) Extent of any proposed alteration of sand dunes or mangrove stands, provided such alteration is approved by the Florida Department of Environmental Protection.
- (7) Existing and proposed alignment of any proposed alteration of existing conditions.
- (8) An evacuation plan for any development that has more than fifty (50) units or is larger than five (5).

The Floodplain Administrator is authorized to waive the submission of site plans, construction documents, and other data that are required by this ordinance but that are not required to be prepared by a registered design professional if it is found that the nature of the proposed development is such that the review of such submissions is not necessary to ascertain compliance with this ordinance.

- (b) Additional analyses and certifications. As applicable to the location and nature of the proposed development activity, and in addition to the requirements of this section, the applicant shall have the following analyses signed and sealed by a Florida licensed engineer for submission with the site plan and construction documents:
 - (1) For alteration of a watercourse, an engineering analysis prepared in accordance with standard engineering practices which demonstrates that the flood-carrying capacity of the altered or relocated portion of the watercourse will not be decreased, and certification that the altered watercourse shall be maintained in a

- manner which preserves the channel's flood-carrying capacity; the applicant shall submit the analysis to FEMA as specified in Section 14-6.(c) of this ordinance.
- (2) For activities that propose to alter sand dunes or mangrove stands in coastal high hazard areas (Zone V), an engineering analysis that demonstrates that the proposed alteration will not increase the potential for flood damage.
- (c) Submission of additional data. When additional hydrologic, hydraulic or other engineering data, studies, and additional analyses are submitted to support an application, the applicant has the right to seek a Letter of Map Change from FEMA to change the base flood elevations, or change boundaries of flood hazard areas shown on FIRMs, and to submit such data to FEMA for such purposes. The analyses shall be prepared by a Florida licensed engineer in a format required by FEMA. Submittal requirements and processing fees shall be the responsibility of the applicant.

Sec. 14-7. Inspections.

- (a) General. Development for which a floodplain development permit or approval is required shall be subject to inspection.
 - (1) Development other than buildings and structures. The Floodplain Administrator shall inspect all development to determine compliance with the requirements of this ordinance and the conditions of issued floodplain development permits or approvals.
 - (2) Buildings, structures and facilities exempt from the Florida Building Code. The Floodplain Administrator shall inspect buildings, structures and facilities exempt from the Florida Building Code to determine compliance with the requirements of this ordinance and the conditions of issued floodplain development permits or approvals.
 - a. Buildings, structures and facilities exempt from the Florida Building Code, lowest floor inspection. Upon placement of the lowest floor, including basement, and prior to further vertical construction, the owner of a building, structure or facility exempt from the Florida Building Code, or the owner's authorized agent, shall submit to the Floodplain Administrator the certification of elevation of the lowest floor prepared and sealed by a Florida licensed professional surveyor.
 - <u>b.</u> <u>Buildings, structures and facilities exempt from the Florida Building Code, final inspection.</u> As part of the final inspection, the owner or owner's

- authorized agent shall submit to the Floodplain Administrator a final certification of elevation of the lowest floor or final documentation of the height of the lowest floor above the highest adjacent grade; such certifications and documentations shall be prepared as specified in Section 14-7.(a)(2)a of this ordinance.
- (3) Manufactured homes. The Floodplain Administrator shall inspect manufactured homes that are installed or replaced in flood hazard areas to determine compliance with the requirements of this ordinance and the conditions of the issued permit. Upon placement of a manufactured home, certification of the elevation of the lowest floor shall be submitted to the Floodplain Administrator.

Sec. 14-8. Variances and appeals.

- (a) Upon the submission of a written application to the director of the Department of Sustainable Development, the Variance Committee consisting of the director of the Department of Sustainable Development, the Floodplain Administrator, the Building Official and the director of Public Works or their designees, shall hear and make recommendations to the City Commission regarding requests for variances from the requirements of this chapter pursuant to Section 553.73(5), F.S. The City Commission shall, upon consideration of the Variance Committee's recommendation, hear and decide on requests for appeals and requests for variances from the strict application of the flood resistant construction requirements of the Florida Building Code. This section does not apply to Section 3109 of the Florida Building Code, Building
- (b) Appeals. The City Commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the administration and enforcement of this ordinance. Any person aggrieved by the decision of Variance Committee City Commission may appeal such decision to the Circuit Court, as provided by Florida Statutes.
- (c) Limitations on authority to grant variances. The City Commission shall base its decisions on variances on technical justifications submitted by applicants, the considerations for issuance in Section 14-8.(f) of this ordinance, the conditions of issuance set forth in Section 14-8.(g) of this ordinance, and the comments and recommendations of the Fleedplain Administrator and the Building Official Variance Committee. The City Commission has the right to attach such conditions as it deems necessary to further the purposes and objectives of this ordinance.
- (d) <u>Historic buildings</u>. A variance is authorized to be issued for the repair, improvement, or rehabilitation of a historic building that is determined eligible for the exception to the flood

resistant construction requirements of the Florida Building Code, Existing Building, Chapter 11 Historic Buildings, upon a determination that the proposed repair, improvement, or rehabilitation will not preclude the building's continued designation as a historic building and the variance is the minimum necessary to preserve the historic character and design of the building. If the proposed work precludes the building's continued designation as a historic building, a variance shall not be granted and the building and any repair, improvement, and rehabilitation shall be subject to the requirements of the Florida Building Code.

- (e) Functionally dependent uses. A variance is authorized to be issued for the construction or substantial improvement necessary for the conduct of a functionally dependent use, as defined in this ordinance, is the minimum necessary considering the flood hazard, and all due consideration has been given to use of methods and materials that minimize flood damage during occurrence of the base flood.
- (f) Considerations for issuance of variances. In reviewing requests for variances, the City Commission shall consider the recommendation of the Variance Committee, all technical evaluations, all relevant factors, all other applicable provisions of the Florida Building Code, this ordinance, and the following:
 - (1) The danger that materials and debris may be swept onto other lands resulting in further injury or damage;
 - (2) The danger to life and property due to flooding or erosion damage:
 - (3) The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners;
 - (4) The importance of the services provided by the proposed development to the community;
 - (5) The availability of alternate locations for the proposed development that are subject to lower risk of flooding or erosion;
 - (6) The compatibility of the proposed development with existing and anticipated development;
 - (7) The relationship of the proposed development to the comprehensive plan and floodplain management program for the area;
 - (8) The safety of access to the property in times of flooding for ordinary and emergency vehicles;

- (9) The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
- (10) 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, streets and bridges.
- (g) Conditions for issuance of variances. Variances shall be issued only upon:
 - (1) Submission by the applicant, of a showing of good and sufficient cause that the unique characteristics of the size, configuration, or topography of the site limit compliance with any provision of this ordinance or the required elevation standards;
 - (2) Determination by the City Commission that:
 - a. Failure to grant the variance would result in exceptional hardship due to the physical characteristics of the land that render the lot undevelopable; increased costs to satisfy the requirements or inconvenience do not constitute hardship;
 - b. The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws and ordinances; and
 - <u>c.</u> The variance is the minimum necessary, considering the flood hazard, to afford relief:
 - (3) Receipt of a signed statement by the applicant that the variance, if granted, shall be recorded in the Office of the Clerk of the Court in such a manner that it appears in the chain of title of the affected parcel of land; and
- (h) If the request is for a variance to allow construction of the lowest floor of a new building, or substantial improvement of a building, below the required elevation, a copy in the record of a written notice from the Floodplain Administrator to the applicant for the variance, specifying the difference between the base flood elevation and the proposed elevation of the lowest floor, stating that the cost of federal flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation (up to amounts as high as \$25 for \$100 of insurance coverage), and stating that construction below the base flood elevation increases risks to life and property.

Sec. 14-9. Violations.

- (a) Violations. Any development that is not within the scope of the Florida Building Code but that is regulated by this ordinance that is performed without an issued permit, that is in conflict with an issued permit, or that does not fully comply with this ordinance, shall be deemed a violation of this ordinance. A building or structure without the documentation of elevation of the lowest floor, other required design certifications, or other evidence of compliance required by this ordinance or the Florida Building Code is presumed to be a violation until such time as that documentation is provided.
- (b) Authority. For development that is not within the scope of the Florida Building Code but that is regulated by this ordinance and that is determined to be a violation, the Floodplain Administrator is authorized to serve notices of violation or stop work orders to owners of the property involved, to the owner's agent, or to the person or persons performing the work.
- (c) Violation 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 variances or special exceptions, shall constitute an offense. Any person who violates any provision of this chapter or who fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than two hundred fifty dollars (\$250.00) or imprisoned for not more than one hundred eighty (180) days, or both, and in addition, shall pay all costs and expenses involved in the case. Each day any violation continues shall be considered a separate offense. Nothing contained in this section shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation.

ARTICLE II. FLOOD RESISTANT DEVELOPMENT

Sec. 14-10. Buildings and structures.

- (a) Design and construction of buildings, structures and facilities exempt from the *Florida Building Code*. Pursuant to Section 14-5.(c) of this ordinance, buildings, structures, and facilities that are exempt from the *Florida Building Code*, including substantial improvement or repair of substantial damage of such buildings, structures and facilities, shall be designed and constructed in accordance with the flood load and flood resistant construction requirements of ASCE 24. Structures exempt from the *Florida Building Code* that are not walled and roofed buildings shall comply with the requirements of Section 14-17 of this ordinance.
- (b) Buildings and structures seaward of the coastal construction control line. If extending, in whole or in part, seaward of the coastal construction control line and also located, in whole or in part, in a flood hazard area:

- (1) Buildings and structures shall be designed and constructed to comply with the more restrictive applicable requirements of the Florida Building Code, Building Section 3109 and Section 1612 or Florida Building Code, Residential Section R322 as amended from time to time.
- (2) Minor structures and non-habitable major structures as defined in Section 161.54, F.S., shall be designed and constructed to comply with the intent and applicable provisions of this ordinance and ASCE 24 as amended from time to time.

Sec. 14-11. Specific methods of construction and requirements.

Pursuant to Broward County Administrative Provisions for the Florida Building Code, the following specific methods of construction and requirements apply:

- (1) Elevation requirements. All new buildings and substantial improvements of buildings shall have the lowest floor, including basement, elevated to or above the elevation required in the Florida Building Code, or the base flood elevation plus one (1) foot, or eighteen inches (18") above the nearest crown of road whichever is higher.
- (2) Limitation on use of fill to support buildings and structures. The use of fill to elevate buildings and structures is not permitted, (with the exception of the interior area of slab-on-stem-wall construction). Minor grading, and the placement of minor quantities of fill, shall be permitted for landscaping and for drainage purposes under and around buildings and for support of parking slabs, pool decks, patios, walkways, and similar ancillary uses.
- (3) <u>Limitations on enclosed areas below base flood elevation. For buildings in special flood hazard areas, the following limitations apply to enclosed areas below elevated buildings:</u>
 - <u>a.</u> For enclosures that are four (4) feet or higher above the interior grade or floor, a Declaration of Land Restriction (Nonconversion Agreement) which shall be submitted with the building permit application.
 - <u>b.</u> Subject to constitutional limitations, the Floodplain Administrator is hereby authorized and directed to make inspections to determine the condition of enclosed areas.
 - c. Floodplain Administrator is hereby authorized to enter, examine and survey, at reasonable hours, those portions of structures and premises for which Nonconversion Agreements are established by this article.

- d. The owner, operator, lessee, occupant, or the person in charge of every dwelling, dwelling unit, hotel and rooming house and business establishment shall give the Floodplain Administrator free access for the purpose of making such inspection, examination and survey; and, shall supply, as correctly and promptly as possible, all information requested by the inspecting officer.
- e. The Floodplain Administrator shall be provided with official identification and shall exhibit such identification when making any inspection.
- (4) <u>Substantial improvement. In the Florida Building Code, Building and the Florida Building Code, Existing Building</u>, definitions for the term "Substantial Improvement" shall be as follows:

Substantial improvement. Any repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure or any combination of repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure taking place during a ten (10) year period, the cumulative cost of which equals or exceeds 50 percent of the market value of the building or structure before the improvement or repair is started. If the structure has incurred "substantial damage," any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions.

Sec. 14-12. Subdivisions.

- (a) <u>Minimum requirements. Subdivision proposals, including proposals for manufactured home parks and subdivisions, shall be reviewed to determine that:</u>
 - (1) Such proposals are consistent with the need to minimize flood damage and will be reasonably safe from flooding;
 - (2) All public utilities and facilities such as sewer, gas, electric, communications, and water systems are located and constructed to minimize or eliminate flood damage; and
 - (3) Adequate drainage is provided to reduce exposure to flood hazards; in Zones AH and AO, adequate drainage paths shall be provided to guide floodwaters around

and away from proposed structures.

- (b) <u>Subdivision plats</u>. Where any portion of proposed subdivisions, including manufactured home parks and subdivisions, lies within a flood hazard area, the following shall be required:
 - (1) Delineation of flood hazard areas, and flood zones, and design flood elevations, as appropriate, shall be shown on preliminary plats; and
 - (2) Compliance with the site improvement and utilities requirements of Section 14-13 of this ordinance.
- Sec. 14-13. Site improvements, utilities and limitations.
- (a) Minimum requirements. All proposed new development shall be reviewed to determine that:
 - (1) Such proposals are consistent with the need to minimize flood damage and will be reasonably safe from flooding:
 - (2) All public utilities and facilities such as sewer, gas, electric, communications, and water systems are located and constructed to minimize or eliminate flood damage; and
 - (3) Adequate drainage is provided to reduce exposure to flood hazards; in Zones AH and AO, adequate drainage paths shall be provided to guide floodwaters around and away from proposed structures.
 - (4) Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a publicly owned or investor-owned sewage system when available.
- (b) Sanitary sewage facilities. All new and replacement sanitary sewage facilities, private sewage treatment plants (including all pumping stations and collector systems), and on-site waste disposal systems shall be designed in accordance with the standards for onsite sewage treatment and disposal systems in Chapter 64E-6, F.A.C. and ASCE 24 Chapter 7 to minimize or eliminate infiltration of floodwaters into the facilities and discharge from the facilities into flood waters, and impairment of the facilities and systems. Sanitary sewers and storm draining systems that have openings below the base flood elevation shall be equipped with automatic back water valves or other automatic backflow devices that are installed in each discharge line passing through a building or exterior wall.

- (c) Water supply facilities. All new and replacement water supply facilities shall be designed in accordance with the water well construction standards in Chapter 62-532.500, F.A.C. and ASCE 24 Chapter 7 to minimize or eliminate infiltration of floodwaters into the systems.
- (d) Limitations on placement of fill. Subject to the limitations of this ordinance, fill shall be designed to be stable under conditions of flooding including rapid rise and rapid drawdown of floodwaters, prolonged inundation, and protection against flood-related erosion and scour.
- (e) Limitations on sites in coastal high hazard areas (Zone V). In coastal high hazard areas, alteration of sand dunes and mangrove stands shall be permitted only if such alteration is approved by the Florida Department of Environmental Protection and only if the engineering analysis required by Section 14-6.(b).(2) of this ordinance demonstrates that the proposed alteration will not increase the potential for flood damage. Construction or restoration of dunes under or around elevated buildings and structures shall comply with Section 14-17.(e)(3) of this ordinance.

Sec. 14-14. Manufactured homes.

- (a) General. All manufactured homes installed in flood hazard areas shall be installed by an installer that is licensed pursuant to Section 320.8249, F.S. and shall comply with the requirements of Chapter 15C-1, F.A.C. and the requirements of this ordinance. If located seaward of the coastal construction control line, all manufactured homes shall comply with the more restrictive of the applicable requirements.
- (b) Foundations. All new manufactured homes and replacement manufactured homes installed in flood hazard areas shall be installed on permanent, reinforced foundations that:
 - (1) In flood hazard areas (Zone A) other than coastal high hazard areas, are designed in accordance with the foundation requirements of the *Florida Building Code*, *Residential* Section R322.2 and this ordinance.
 - (2) In coastal high hazard areas (Zone V), are designed in accordance with the foundation requirements of the Florida Building Code, Residential Section R322.3 and this ordinance.
- (c) Anchoring. All new manufactured homes and replacement manufactured homes shall be installed using methods and practices which minimize flood damage and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse or lateral movement. Methods of anchoring include, but are not limited to, use of over-the-top or frame ties to ground anchors. This anchoring requirement is in addition to applicable state and local anchoring requirements for wind resistance.

- (d) Elevation. Manufactured homes that are placed, replaced, or substantially improved shall comply with Section 14-14 (e) or 14-14 (f) of this ordinance, as applicable.
- (e) General elevation requirement. Unless subject to the requirements of Section 14-14.(f) of this ordinance, all manufactured homes that are placed, replaced, or substantially improved on sites located: (a) outside of a manufactured home park or subdivision; (b) in a new manufactured home park or subdivision; (c) in an expansion to an existing manufactured home park or subdivision upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated such that the bottom of the frame is at or above the elevation required, as applicable to the flood hazard area, in the *Florida Building Code, Residential* Section R322.2 (Zone A) or Section R322.3 (Zone V).
- (f) Elevation requirement for certain existing manufactured home parks and subdivisions. Manufactured homes that are not subject to Section 14-14.(e) of this ordinance, including manufactured homes that are placed, replaced, or substantially improved on sites located in an existing manufactured home park or subdivision, unless on a site where substantial damage as result of flooding has occurred, shall be elevated such that either the:
 - (1) Bottom of the frame of the manufactured home is at or above the elevation required, as applicable to the flood hazard area, in the *Florida Building Code*, *Residential* Section R322.2 (Zone A) or Section R322.3 (Zone V); or
 - (2) Bottom of the frame is supported by reinforced piers or other foundation elements of at least equivalent strength that are not less than thirty-six (36) inches in height above grade.
- (g) Enclosures. Enclosed areas below elevated manufactured homes shall comply with the requirements of the *Florida Building Code*, *Residential* Section R322 for such enclosed areas, as applicable to the flood hazard area and Section 14-11 of this ordinance.
- (h) Utility equipment. Utility equipment that serves manufactured homes, including electric, heating, ventilation, plumbing, and air conditioning equipment and other service facilities, shall comply with the requirements of the *Florida Building Code*, *Residential* Section R322, as applicable to the flood hazard area.
- Sec. 14-15. Recreational vehicles and park trailers.
- (a) <u>Temporary placement</u>. Recreational vehicles and park trailers placed temporarily in flood hazard areas shall:
 - (1) Be on the site for fewer than one hundred eighty (180) consecutive days; or

- (2) Be fully licensed and ready for highway use, which means the recreational vehicle or park model is on wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanent attachments such as additions, rooms, stairs, decks and porches.
- (b) Permanent placement. Recreational vehicles and park trailers that do not meet the limitations in Section 14-15.(a) of this ordinance for temporary placement shall meet the requirements of Section 14-14 of this ordinance for manufactured homes.

Sec. 14-16. Tanks.

- (a) <u>Underground tanks</u>. <u>Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty.</u>
- (b) Above-ground tanks not elevated. Above-ground tanks that do not meet the elevation requirements of Section 14-16 (c) of this ordinance shall:
 - (1) Be permitted in flood hazard areas (Zone A) other than coastal high hazard areas, provided the tanks are anchored or otherwise designed and constructed to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty and the effects of flood-borne debris.
 - (2) Not be permitted in coastal high hazard areas (Zone V).
- (c) Above-ground tanks, elevated. Above-ground tanks in flood hazard areas shall be attached to and elevated to or above the design flood elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area.
 - (d) Tank inlets and vents. Tank inlets, fill openings, outlets and vents shall be:
 - (1) At or above the design flood elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and
 - (2) Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.

Sec. 14-17. Other development.

- (a) General requirements for other development. All development, including man-made changes to improved or unimproved real estate for which specific provisions are not specified in this ordinance or the *Florida Building Code*, shall:
 - (1) Be located and constructed to minimize flood damage;
 - (2) Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design flood;
 - (3) Be constructed of flood damage-resistant materials; and
 - (4) Have mechanical, plumbing, and electrical systems above the design flood elevation, except that minimum electric service required to address life safety and electric code requirements is permitted below the design flood elevation provided it conforms to the provisions of the electrical part of building code for wet locations.
- (b) Concrete slabs used as parking pads, enclosure floors, landings, decks, walkways, patios and similar nonstructural uses in coastal high hazard areas (Zone V). In coastal high hazard areas, concrete slabs used as parking pads, enclosure floors, landings, decks, walkways, patios and similar nonstructural uses are permitted beneath or adjacent to buildings and structures provided the concrete slabs are designed and constructed to be:
 - (1) Structurally independent of the foundation system of the building or structure;
 - (2) Frangible and not reinforced, so as to minimize debris during flooding that is capable of causing significant damage to any structure; and
 - (3) Have a maximum slab thickness of not more than four (4) inches.
- (c) <u>Decks and patios in coastal high hazard areas (Zone V)</u>. In addition to the requirements of the *Florida Building Code*, in coastal high hazard areas decks and patios shall be located, designed, and constructed in compliance with the following:
 - (1) A deck that is structurally attached to a building or structure shall have the bottom of the lowest horizontal structural member at or above the design flood elevation and any supporting members that extend below the design flood elevation shall comply with the foundation requirements that apply to the building or structure, which shall be designed to accommodate any increased loads resulting from the attached deck.

- (2) A deck or patio that is located below the design flood elevation shall be structurally independent from buildings or structures and their foundation systems, and shall be designed and constructed either to remain intact and in place during design flood conditions or to break apart into small pieces to minimize debris during flooding that is capable of causing structural damage to the building or structure or to adjacent buildings and structures.
- (3) A deck or patio that has a vertical thickness of more than twelve (12) inches or that is constructed with more than the minimum amount of fill necessary for site drainage shall not be approved unless an analysis prepared by a qualified registered design professional demonstrates no harmful diversion of floodwaters or wave run-up and wave reflection that would increase damage to the building or structure or to adjacent buildings and structures.
- (4) A deck or patio that has a vertical thickness of twelve (12) inches or less and that is at natural grade or on nonstructural fill material that is similar to and compatible with local soils and is the minimum amount necessary for site drainage may be approved without requiring analysis of the impact on diversion of floodwaters or wave run-up and wave reflection.
- (d) Other development in coastal high hazard areas (Zone V). In coastal high hazard areas, development activities other than buildings and structures shall be permitted only if also authorized by the appropriate federal, state or local authority; if located outside the footprint of, and not structurally attached to, buildings and structures; and if analyses prepared by qualified registered design professionals demonstrate no harmful diversion of floodwaters or wave run-up and wave reflection that would increase damage to adjacent buildings and structures. Such other development activities include but are not limited to:
 - (1) <u>Bulkheads, seawalls, retaining walls, revetments, and similar erosion control structures;</u>
 - (2) Solid fences and privacy walls, and fences prone to trapping debris, unless designed and constructed to fail under flood conditions less than the design flood or otherwise function to avoid obstruction of floodwaters; and
 - (3) On-site sewage treatment and disposal systems defined in 64E-6.002, F.A.C., as filled systems or mound systems.
 - (e) Nonstructural fill in coastal high hazard areas (Zone V). In coastal high hazard areas:
 - (1) Minor grading and the placement of minor quantities of nonstructural fill shall be

- permitted for landscaping and for drainage purposes under and around buildings.
- (2) Nonstructural fill with finished slopes that are steeper than one unit vertical to five units horizontal shall be permitted only if an analysis prepared by a qualified registered design professional demonstrates no harmful diversion of floodwaters or wave run-up and wave reflection that would increase damage to adjacent buildings and structures.
- (3) Where authorized by the Florida Department of Environmental Protection or applicable local approval, sand dune construction and restoration of sand dunes under or around elevated buildings are permitted without additional engineering analysis or certification of the diversion of floodwater or wave run-up and wave reflection if the scale and location of the dune work is consistent with local beachdune morphology and the vertical clearance is maintained between the top of the sand dune and the lowest horizontal structural member of the building.
- <u>SECTION 3</u>. That all ordinances provided in Chapter 14, Flood Damage, not included in the or recognized and continued in force by reference therein are repealed.
- <u>SECTION 4.</u> That this ordinance shall apply to all applications for development, including building permit applications and subdivision proposals, submitted on or after December 31, 1974.
- <u>SECTION 5</u>. That if any clause, section or other part of this Ordinance shall be held invalid or unconstitutional by any court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby, but shall remain in full force and effect.
- <u>SECTION 6</u>. That all ordinances or parts of ordinances in conflict herewith, be and the same are hereby repealed.
- <u>SECTION 7</u>. That this Ordinance shall be in full force and effect ten days from the date of final passage.
- CODING: Words, symbols, and letters stricken are deletions; words, symbols, and letters <u>underlined</u> are additions; words, symbols, and letters <u>double underlined</u> are additions added after first reading; words, symbols and letters double stricken are deletions from the version presented at first reading.

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PASSED FIRST READING this the 3rd PASSED SECOND READING this the	
	Mayor JOHN P. "JACK" SEILER
ATTEST:	
City Clerk JONDA K. JOSEPH	