

Chapter 222 FP Floodplain Overlay District (-FP1, -FP2, -FP3)

(3285-7/95, 3334-6/97, 3675-12/04, 3845-12/09)

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222.01 Statutory Authorization

The Legislature of the State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Consistent with this authority, the City of Huntington Beach does hereby adopt this chapter to implement the City's floodplain management regulations. (3845-12/09)

222.02 Floodplain Overlay District Established

The FP Floodplain Overlay District is established and applies to all areas of special flood hazard within the City. If not controlled, periodic inundation results in loss of life and property, health and safety hazards, disruption of commerce and government 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. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

222.04 Zoning Map Designators; Establishment of Hazard Areas

- A. The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in the Flood Insurance Study for the City of Huntington Beach dated August 16, 1982 and delineated on the Flood Insurance Rate Map (FIRM) dated February 16, 1983 (revised September 16, 1989) and the Orange County, County-wide FIRM dated November 3, 1993 and all subsequent revisions and/or amendments are hereby adopted by reference and declared to be a part of this chapter. FEMA's most recent FIRM and flood insurance study (on file with the Director) may be supplemented by studies for other areas which allow implementation of this chapter and which are recommended to the City Council by the Director.

- B. Three subdistricts of the FP Overlay District are designated for purposes of flood hazard provisions.
1. -FP1 Subdistrict shall apply to that area designated as a floodway or right-of-way necessary for implementation of the Santa Ana River Channel Plan by the U.S. Army Corps of Engineers.
 2. -FP2 Subdistrict shall apply to FIRM areas A, AE, AO, and AH and any other area determined by the Director to be subject to similar flood hazards.
 3. -FP3 Subdistrict shall apply to FIRM areas V or VE and any other area determined by the Director to be subject to similar flood hazard.
- C. The -FP District boundaries shall be delineated on the Zoning Map by adding a "-FP" designator to the base district designator for the area affected, followed by the appropriate subdistrict designation (1, 2, or 3).

222.06 Definitions

Except where the context clearly indicates otherwise, the definitions given in this section shall govern the provisions of this chapter.

- A. Appeal. A request for review of the Director's interpretation of any provision of this chapter, or a request for a variance.
- B. Area of shallow flooding. A designated AO or AH zone on the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA). The base flood depths range from one to three feet; a clearly-defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident.
- C. Area of special flood hazard. The land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. This area is designated as Zone A, AO, AH, AE, V, and VE on the FIRM.
- D. Base flood. A flood having a 1 percent chance of being equaled or exceeded in any given year (also called the 100-year flood).
- E. Basement. Any area of a building having its floor subgrade on all sides.
- F. Breakaway wall. Any type of wall, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic, or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without damage to the structural integrity of the building on which it is used or any building to which it might be carried by flood waters. A breakaway wall shall have a safe design loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls must be certified by a California-registered engineer or architect and shall meet the following conditions:
1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of a base flood.
- G. Coastal high hazard area. The area subject to high velocity waters including, but not limited to, coastal and tidal inundation or tsunamis. The area is designated on a FIRM as Zone V and VE and as -FP3 in this Chapter.
- H. Development. Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavating, or drilling operations or storage of equipment and materials. (3845-12/09)
- I. Existing manufactured home park or subdivision. A manufactured home park or subdivision for which the construction of facilities including utilities, final grading or paving of pads and the construction of streets was completed before the effective date of the City's floodplain management regulation.
- J. Expansion to an existing manufactured home park or subdivision. The preparation of additional manufactured home sites in an existing manufactured home park or subdivision by the construction of facilities servicing the lots on which the additional manufactured homes are to be affixed including, but not limited to, installation of utilities, construction of streets, and either final site grading or the pouring of concrete pads. (3845-12/09)
- K. Flood or flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters; the unusual and rapid accumulation of runoff of surface waters from any source; mudslides; and condition resulting from flood-related erosion.
- L. Flood Insurance Rate Map (FIRM). The official maps on which areas of special flood hazard, the risk premium zones and the floodway applicable to the community are delineated. (3845-12/09)
- M. Flood Insurance Study. The "Flood Insurance Study for Orange County, CA and Incorporated Areas," prepared by the Federal Emergency Management Agency (FEMA), providing flood profiles, the Flood Insurance Rate Maps, and the water surface elevations of the base flood. (3845-12/09)
- N. Floodplain. Any land area susceptible to being inundated by water from any source.
- O. Floodplain management. The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management control.
- P. Floodplain management regulations. Zoning and subdivision ordinances, building codes, health regulations, special purpose ordinances (such as floodplain, grading and erosion control) and other applications of police power. This term describes federal, state or local regulations in any combination thereof which provide standards for the purpose of preventing and reducing flood damage and loss.
- Q. Floodproofing. Any combination of structural and nonstructural additions, changes or adjustments to nonresidential structures which reduce or eliminate flood damage to real estate or improved real property, water, and sanitary facilities, structures, and

their contents. Floodproofing techniques are further described in FEMA Technical bulletins 1-93, 3-93, and 7-93. (3845-12/09)

- R. Floodway. 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 1 foot.
- S. Functionally dependent use. A use which cannot perform its intended purposes unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
- T. Highest adjacent grade. The highest natural elevation of the ground surface next to the proposed walls of a structure prior to construction.
- U. Historic Structure. Any structure that is: (3845-12/09)
1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (3845-12/09)
 2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (3845-12/09)
 3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or (3845-12/09)
 4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs. (3845-12/09)
- V. Lowest Floor. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for the parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter. (3845-12/09)
- W. Manufactured home. A structure, transportable in one or more sections, which is built on a permanent 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 "recreation vehicle". (3845-12/09)
- X. Manufactured home park or subdivision. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale. (3845-12/09)
- Y. Mean Sea Level. The National Geodetic Vertical Datum of 1929 or other datum, to which base flood elevations shown on the FIRM are referenced. (3845-12/09)

- Z. New construction. Structures for which the “start of construction” commenced on or after the effective date of the City’s floodplain management control (February 16, 1983). (3845-12/09)
- AA. 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 February 16, 1983. (3845-12/09)
- BB. Recreational vehicle. A vehicle which is: (3845-12/09)
1. Built on a single chassis; (3845-12/09)
 2. 400 square feet or less when measured at the largest horizontal projection; (3845-12/09)
 3. Designed to be self-propelled or permanently towable by a light-duty truck; and (3845-12/09)
 4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. (3845-12/09)
- CC. Sand dunes. Naturally occurring accumulations of sand in ridges or mounds landward of the beach. (3845-12/09)
- DD. Special flood hazard area (SFHA). An area in the floodplain subject to a one percent or greater chance of flooding in any given year. It is shown on FIRM as Zone A, AO, A1-A30, AE, A99, AH, V130, VE or V. (3845-12/09)
- EE. Start of construction. Includes substantial improvement and other new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start is either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include the following: land preparation such as clearing, grading, and filling; the installation of streets and/or walkways; excavation for a basement, footings, piers, or foundations or the erection of temporary forms; the installation of accessory buildings, such as garages or sheds that are not occupied as dwelling units or connected to the main structure. In the case of substantial improvements, the actual start of construction is the first alteration to any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building. (3845-12/09)
- FF. Structure. A walled and roofed building, including a gas/liquid storage tank and a manufactured home, that is principally above ground. It does not include open pavilions, bleachers, carports and similar structures that do not have at least two rigid walls and a roof. (3845-12/09)
- GG. Substantial damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to the condition existing before damage would equal or exceed 50 percent of the market value before the damage occurred. (3845-12/09)

HH. Substantial improvement. Any repair, reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before such repair, reconstruction, rehabilitation, addition, or improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. This term does not, however, include: (3285-7/95, 3334-6/97, 3845-12/09)

1. Any improvement to a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to ensure safe living conditions; or
2. Any alteration of a "historic structure" provided that the alteration will not preclude the structure's continued designation as a "historic structure."
(3285-7/95, 3334-6/97, 3845-12/09)

"Market value" of a structure, as used herein, shall be the depreciated value of the structure prior to such repair, reconstruction, rehabilitation, addition, or improvement as shown in a report by a qualified real estate appraiser. In the alternative, the Director may use other methods or sources to determine market value as deemed acceptable by FEMA including use of replacement cost depreciated based on accepted industry standards. (3285-7/95, 3334-6/97, 3845-12/09)

"Cost" for a repair, reconstruction, rehabilitation, addition, or improvement project, as used herein, shall be determined by valuation figures in use by the Director or itemized estimates for both materials and labor made by licensed contractors or other professional estimators in the construction industry.
(3845-12/09)

II. Variance. A grant of relief from the requirements of this chapter which permits construction in a manner which would otherwise be prohibited.
(3285-7/95, 3334-6/97, 3845-12/09)

JJ. Violation. The failure of a structure or other development to be fully compliant with this chapter. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided. (3845-12/09)

222.08 Methods of Reducing Flood Hazards

Methods and provisions for reducing flood hazard include:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- B. Requiring that uses and structures vulnerable to floods be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplain, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage;

- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas; and
- F. Any methods and provisions for reducing flood hazard within the coastal zone shall be consistent with the Coastal Conservation District. (3334-6/97)

222.10 General Provisions

- A. Compliance. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable provisions. This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter or another chapter, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
- B. 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. As a consequence, 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 damage. This chapter shall not create liability on the part of the incidental parcels which do not front a sandy beach, which have bulkheads and are not adjacent to recreation or public use areas and other existing or proposed lateral or vertical easements, or when development is proposed on an existing subdivided single-family residential lot between developed residential parcels.
- C. Severability. This chapter and the various parts thereof are hereby declared to be severable. Should any section of this chapter be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the chapter as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid. (3845-12/09)
- D. Designation of Floodplain Administrator. The Director of Planning is designated to administer, implement, and enforce this chapter by granting or denying development permits in accord with its provisions. (3845-12/09)
- E. Director - Responsibilities. The duties and responsibilities of the Director in enforcing the provisions of this chapter shall include, but not be limited to:
(3845-12/09)
 - 1. Reviewing development permits to determine that the permit requirements of this chapter have been satisfied, that all other required state and federal permits have been obtained, and that the site is reasonably safe from flooding. (3845-12/09)
 - 2. Reviewing development permits within Zones A1-30 and AE without a designated regulatory floodway to determine that the proposed new construction, substantial improvement, or development, when considered with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than 1 foot at any point within the city. (3845-12/09)
 - 3. Making interpretations where needed as to the exact location of the boundaries of areas of special flood hazard.

4. Obtaining and maintaining for public inspection, flood insurance policy information concerning the certified elevation for residential developments and subdivisions, and the certification required for floor elevations, for developments located in areas where shallow flooding is likely to occur; for floodproofing of nonresidential developments; for coastal high hazard areas; for anchoring of manufactured homes; and for floodway encroachments.
 5. Notifying adjacent communities and responsible staff and federal agencies prior to any alteration or relocation of a watercourse. The Director shall further ensure that the flood-carrying capacity is maintained for any watercourse, or portion thereof, which has been altered or relocated.
 6. Within 6 months of information becoming available or project completion, whichever comes first, the Floodplain Administrator, whenever feasible, shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR) if applicable. Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data. (3845-12/09)
 7. Taking action to remedy violations of this chapter as provided in Chapter 249. (3845-12/09)
- F. Development Permit Review. An Application for Development or building permit shall include: (3845-12/09)
1. Proposed elevations in relation to mean sea level, of the lowest floor of all structures; in -FP2, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures;
 2. Proposed elevations in relation to mean sea level and the FIRM design flood to which any structure will be floodproofed; and
 3. A description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
 4. All appropriate certifications required in Section 222.14.

222.12 Land Use Controls

A. -FPI Subdistrict

1. Permitted Uses
 - a. Flood control channels, levees, spreading grounds and basins, roads, bridges and storm drains.
 - b. Agricultural uses which require no permanent structures, landfill, storage of materials or equipment, or stream alteration that would result in any increase in flood levels within the regulatory floodway.
2. Uses Requiring a Conditional Use Permit from the Zoning Administrator (3675-12/04)
 - a. Minor Utilities. (3675-12/04)

- b. Temporary structures which can be readily removed in the time available after flood warning. (3675-12/04)
 - c. Recreation areas, parks, campgrounds, playgrounds, riding and hiking trails, parking lots, wildlife and natural preserves, and similar open space uses that do not have substantial permanent structures. (3675-12/04)
3. Uses Requiring a Conditional Use Permit from the Planning Commission (3675-12/04)
- a. Major utilities. (3675-12/04)
4. Prohibited Uses (3675-2/04)
- a. Landfills, excavations, improvements, developments, or encroachments that will obstruct waterflow, cause any cumulative increase in the elevation of the design flood water profile by more than one (1) foot at any point, tend to broaden direct flood flows out of the floodway, impair the design flood conveyance capability of the floodway, or otherwise create a potential hazard to life or property resulting from flood flows.
 - b. All encroachments, including fill, new construction, substantial improvements, and other development unless a California-registered civil engineer demonstrates to the satisfaction of the Director that such encroachments will not result in any increase in flood levels within the floodway.
 - c. Permanent structures.
 - d. Storage of substances or materials capable of floating which could add to the debris load of a flood.
 - e. Storage of chemicals, explosives, flammable liquids, toxic materials, or anything of a nature which could create a potential danger to the public health and welfare.

B. -FP2 Subdistrict

1. Permitted Uses
- a. Excavation and removal of rock, sand gravel, and other materials, providing that the flood-carrying capacity of the watercourse is preserved and the excavation area is designed to receive and release floodwaters, and such excavations will not create a potential hazard to adjacent properties resulting from flood or erosion conditions.
 - b. Landfills that do not cause floodwaters to be diverted onto adjacent properties, are protected against erosion from floodwaters, and do not increase the elevation of the design flood by more than one (1) foot at any point, or that can fully provide for the design flood by means of watercourse improvements.
 - c. New structures and improvements permitted by the base district or allowed with a conditional use permit including manufactured homes, which comply with the applicable standards of construction of this chapter.

2. Prohibited Uses

- a. Landfills, excavations, improvements, developments, or encroachments that will obstruct waterflow, cause a cumulative increase in the elevation of the design floodwater profile by more than 1 foot at any point, tend to broaden or direct flood flows out of the natural floodplain, or otherwise cause a potential hazard to life or property resulting from flood flows.

C. -FP3 Subdistrict

All uses permitted or conditionally permitted in the base district with which the -FP3 district is combined are permitted subject to approval of a building permit and compliance with the standards of construction of this chapter, except for the following uses which are prohibited:

1. The placement of manufactured homes except in existing parks or subdivisions.
2. Man-made alteration of sand dunes which would increase potential flood damage.
3. Fill used for structural support of buildings. (3285-7/95, 3334-6/97)

222.14 Development Standards and Standards of Construction

Development standards for the -FP Overlay District shall be specified by a conditional use permit or shall be those of the base district with which the -FP district is combined, provided that the following standards of construction shall apply in the -FP2 and -FP3 subdistricts.

A. -FP2 and -FP3 Standards of Construction. (3845-12/09)

1. Anchoring. All new construction and substantial improvements of structures, including manufactured homes, shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. All manufactured homes shall comply with the anchoring standards of Section 222.14A5. (3845-12/09)
2. Construction Materials and Methods. All new construction and substantial improvements of structures, including manufactured homes, shall use construction methods and practices that minimize flood damage, and shall utilize materials and utility equipment resistant to flood damage for areas below the base flood elevation plus one foot freeboard. Adequate drainage paths around structures on slopes shall be provided to guide flood waters around and away from proposed structures. (3845-12/09)
3. Standards for Utilities and Mechanical Equipment. (3845-12/09)
 - a. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
 - b. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

- c. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

4. Standards for Subdivisions and Other Proposed Development. (3845-12/09)

- a. All new subdivision proposals and other proposed development, including proposals for manufactured home parks and subdivisions, greater than 50 lots or 5 acres, whichever is the lesser, shall: (3845-12/09)
 - 1. Identify the Special Flood Hazard Areas (SFHA) and Base Flood Elevations (BFE). (3845-12/09)
 - 2. Identify the elevations of lowest floors of all proposed structures and pads on the final plans. (3845-12/09)
 - 3. If the site is filled above the base flood elevation, the following as-built information for each structure shall be certified by a registered civil engineer or licensed land surveyor and provided as part of an application for a Letter of Map Revision based on Fill (LOMR-F) to the Floodplain Administrator: (3845-12/09)
 - i. Lowest floor elevation. (3845-12/09)
 - ii. Pad elevation. (3845-12/09)
 - iii. Lowest adjacent grade. (3845-12/09)
- b. All subdivision proposals and other proposed development shall be consistent with the need to minimize flood damage. (3845-12/09)
- c. All subdivision proposals and other proposed development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage. (3845-12/09)
- d. All subdivisions and other proposed development shall provide adequate drainage to reduce exposure to flood hazards. (3845-12/09)

5. Standards for Manufactured Homes.

- a. All new and replacement manufactured homes and substantial improvements to manufactured homes on sites located (3285-7/95, 3334-6/97)
 - 1. outside of a manufactured home park or subdivision, (3285-7/95, 3334-6/97)
 - 2. in a new manufactured home park or subdivision, (3285-7/95, 3334-6/97)
 - 3. in an expansion to an existing manufactured home park or subdivision, or (3285-7/95, 3334-6/97)
 - 4. in an existing manufactured home park or subdivision on a site upon which a manufactured home has incurred substantial damage as a result of a flood shall be elevated on a permanent foundation so that the lowest floor is elevated one foot about the base flood elevation. (3285-7/95, 3334-6/97)

- b. All manufactured homes to be placed or substantially improved in an existing manufactured home park or subdivision shall be elevated to have the lowest floor one foot above the base flood elevation or the manufactured home chassis supported by reinforced piers or other foundation elements of equivalent strength that are a minimum of 3 feet above grade. Where a site upon which a manufactured home has incurred substantial damage as the result of a flood, subsection 5a shall apply.
 - c. All manufactured homes shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
6. Standards for Recreational Vehicles. All recreational vehicles placed on a site within a flood hazard zone shall be fully licensed and ready for highway use, restricted to a maximum stay on site of 180 days unless the elevation and anchoring of the recreational vehicle complies with the Standards for Manufactured Homes. All recreational vehicles placed in coastal high hazard areas (V and VE zones) shall also comply with –FP3 standards for construction. (3285-7/95, 3334-6/97, 3845-12/09)

B. -FP2 Standards of Construction (3845-12/09)

1. Elevation and Floodproofing. (3845-12/09)

- a. Residential Construction – New residential construction and substantial improvement of any residential structure shall have the lowest floor including basement elevated one foot above the base flood elevation except: (3845-12/09)
 - (1) In an AO zone, the lowest floor including basement shall be elevated one foot above the highest adjacent natural grade to a height exceeding the depth number on the FIRM by one foot or at least three (3) feet if no depth number is specified; and (3845-12/09)
 - (2) In an A zone, the lowest floor including basement shall be elevated one foot above the base flood elevation as determined by the City. (3845-12/09)

Prior to issuance of a building permit and prior to building permit final inspection, the elevation of the lowest floor including basement shall be certified by a California-registered engineer, or surveyor. The completed FEMA elevation certificates shall be submitted to the Director. (3845-12/09)

- b. Nonresidential Construction. New construction and substantial improvement of any nonresidential structure shall be either elevated to comply with subsection 1a or together with attendant utility and sanitary facilities be floodproofed below the level stated in subsection 1a so that the structure is watertight with walls substantially impermeable to the passage of water and be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A floodproofing certificate shall be completed and certified by a California registered engineer or architect and submitted to the Director prior to issuance of a building permit. (3845-12/09)
- c. Flood Openings. All new construction and substantial improvement of any structure with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically

equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. All proposals for using space below the lowest floor shall exceed the following requirements: (3845-12/09)

- (1) Be certified by a California registered engineer or architect: or (3845-12/09)
- (2) Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration, Federal Emergency Management Agency, or (3845-12/09)
- (3) Have a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic entry and exit of floodwaters. (3845-12/09)

C. -FP3 Standards of Construction (3845-12/09)

1. Location of Buildings. All new construction shall be located on the landward side of the reach of the mean high tide. (3285-7/95, 3334-6/97, 3845-12/09)
2. Free of Obstruction. All new construction and substantial improvement shall have the lowest floor free of obstructions or constructed with breakaway walls as defined in Section 222.06. Such enclosed space shall not be used for human habitation but may be used for parking, building access or storage. (3285-7/95, 3334-6/97, 3845-12/09)
3. Elevation and Structural Support. All new construction and substantial improvements shall be elevated on adequately anchored pilings or columns so that the bottom of the lowest horizontal portion of the structural member of the lowest floor (excluding the pilings or columns) is elevated at or above the base flood level. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall comply with standards adopted by the City. Fill shall not be used for structural support of buildings. (3285-7/95, 3334-6/97, 3845-12/09)
4. Certification. A California-registered engineer or architect shall certify to the satisfaction of the Director that the proposed structure complies with the requirements of this section. The Director shall obtain and maintain records of the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings or columns) of all new and substantially improved structures, and whether such structures contain a basement. (3285-7/95, 3334-6/97, 3845-12/09)

222.16 Variances/Appeals

- A. General Provisions. The Planning Commission shall hear and decide requests for variances from the standards of this chapter as well as requests for appeals when it is alleged there is an error in any requirement, decision, or determination made by the

Director in the enforcement or administration of this chapter in accord with the procedures established in Chapter 241 and 248.

1. Variances may be issued for new construction and substantial improvements on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below base flood level, providing the standards listed in this chapter are considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variances increases.
 2. Variances may be granted for new construction and substantial improvement and for other development necessary for the conduct of a functionally dependent use provided that the provisions of Chapter 222 are satisfied and that the structure or other development is protected by methods that minimize flood damage during the base flood and create no additional threats to public safety or public nuisance.
 3. Variances may be issued for the repair or rehabilitation of historic structures provided the proposed repair or rehabilitation is necessary to preserve the historic character and design of the structure and allow the continued designation as an historic structure. (3845-12/09)
 4. Any applicant to whom a variance is granted shall be provided written notice that the structure will be permitted to be built with a lowest floor elevation below the regulatory flood elevation and that the cost of flood insurance will be commensurate with the increased risk. A copy of the notice shall be recorded by the Director in the office of the Orange County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.
- B. Factors to be Considered. In reviewing applications, the Planning Commission shall consider all relevant factors, including technical evaluations, this section, and other standards specified in this chapter. In reaching a decision on an appeal or variance, the Planning Commission shall consider the: (3285-7/95, 3845-12/09)
1. Danger that materials may be swept onto other lands to the injury of others;
 2. Danger of life and property due to flooding or erosion damage;
 3. Importance of the services provided to the community by the proposed facility;
 4. Necessity of waterfront location for the facility, if applicable;
 5. Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 6. Compatibility of the proposed use with existing and anticipated developments;
 7. Relationship of the proposed use to the General Plan, Local Coastal Program, and the floodplain management program for that area;
 8. Safety of access to the property in time of flood for ordinary and emergency vehicles;
 9. Expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and

10. Cost of providing government services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electric and water services, and streets and bridges.
- C. Findings. When granting a variance, the Planning Commission shall make the following findings in addition to the findings contained in Chapter 241.
1. The project provides the minimum deviation to afford relief from the provisions of Chapter 222.
 2. The proposed project will not result in increased flood heights, additional threats to public safety or extraordinary public expense; create a nuisance, cause fraud or victimization of the public, or conflict with existing local laws or ordinances.
- D. Authority to Impose Additional Conditions. In addition to the authority to impose conditions under Section 241.12, the Planning Commission may attach conditions to the granting of variances as deemed necessary. (3845-12/09)
- E. Records. The Director shall maintain a record of all variance actions and findings to justify their issuance, and report such variances to FEMA and FIA upon request. (3285-7/95, 3334-6/97)