

# City of Palm Coast Agenda

PLANNING AND LAND DEVELOPMENT WORKSHOP City Hall 160 Lake Avenue Palm Coast, FL 32164 www.palmcoastgov.com

Chair James A. Jones
Vice Chair Glenn Davis
Board Member Sybil Dodson-Lucas
Board Member Christopher Dolney
Board Member Pete Lehnertz
Board Member Jake Scully
Board Member Clinton Smith
School Board Rep David Freeman

Wednesday, January 17, 2018

6:00 PM

**COMMUNITY WING OF CITY HALL** 

#### **RULES OF CONDUCT:**

>Public comment will be allowed consistent with Senate Bill 50, codified at the laws of Florida, 2013 – 227, creating Section 286.0114, Fla. Stat. (with an effective date of October 1, 2013). The public will be given a reasonable opportunity to be heard on a proposition before the City's Planning & Land Development Regulation Board, subject to the exceptions provided in §286.0114(3). Fla. Stat.

- >Public comment on issues on the agenda or public participation shall be limited to 3 minutes.
- > All public comments shall be directed through the podium. All parties shall be respectful of other persons' ideas and opinions. Clapping, cheering, jeering, booing, catcalls, and other forms of disruptive behavior from the audience are not permitted.
- >If any person decides to appeal a decision made by the Planning and Land Development Regulation Board with respect to any matter considered at such meeting or hearing, he/she may want a record of the proceedings, including all testimony and evidence upon which the appeal is to be based. To that end, such person will want to ensure that a verbatim record of the proceedings is made.
- >If you wish to obtain more information regarding Planning and Land Development Regulation's Agenda, please contact the Community Development Department at 386-986-3736.
- >In accordance with the Americans with Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk's Office at 386-986-3713 at least 48 hours prior to the meeting.
- >The City of Palm Coast is not responsible for any mechanical failure of recording equipment
- >All pagers and cell phones are to remain OFF while the Planning and Land Development Regulation Board is in session.

Call to Order and Pledge of Allegiance

**Roll Call and Determination of a Quorum** 

**Public Hearings** 

1 PRESENTATION ON PROPOSED REWRITE OF LAND DEVELOPMENT CODE SECTION 10.02 FLOODPLAIN ORDINANCE

City of Palm Coast Created on 1/17/18

1

**Board Discussion and Staff Issues** 

Adjournment

ATTACHMENTS TO MEETING MINUTES

City of Palm Coast Created on 1/17/18

# City of Palm Coast, Florida Agenda Item

Agenda Date: 1/17/2018

Department PLANNING Amount
Item Key Account
#

Subject PRESENTATION ON PROPOSED REWRITE OF LAND DEVELOPMENT CODE SECTION 10.02 FLOODPLAIN ORDINANCE

# Background:

Since February 2002, the City of Palm Coast has participated in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA). Participation in the NFIP comes with a requirement to adopt the minimal standards of the program, originally satisfied by Ordinance adoption in 2001. In order for a citizen to buy flood insurance, a community must participate in the NFIP. Beyond the minimal standards of the NFIP, communities are encouraged to participate in the Community Rating System (CRS) program.

The CRS program recognizes and encourages communities for floodplain management activities that exceed NFIP standards. The CRS program ranks participants on a scale of 1 (best) to 10 (entry level) based on a points-achieved standard. The City's participation has directly reduced flood insurance rates for most policies written for properties with the City. The following section provides a timeline of the City's efforts to improve floodplain management efforts.

02/02/2002: Accepted into the NFIP

05/01/2004: CRS Class 7 (15% premium reduction)

07/17/2006: Effective Date of revised Flood Insurance Rate Maps

08/19/2008: Unified Land Development Code adopted 05/01/2009: CRS Class 6 (20% premium reduction) 11/20/2014: CRS Class 5 (25% premium reduction)

05/01/2017: CRS Class 4 (30% premium reduction). At time of 2017 Class change, there were only 12 other communities with a Class 4 or better designation in the entire United States.

06/06/2018: Effective Date of revised Flood Insurance Rate Maps. The proposed ordinance references the upcoming effective date for the updated maps.

In the last few years, the Florida Building Code has gradually integrated flood regulations. To ensure ongoing consistency with the NFIP and FBC regulations, the Florida Division of Emergency Management created a "model ordinance" for Florida communities to maintain compliance with the NFIP. In the last year, City staff have worked with FDEM consulting staff to align the model ordinance with the City's existing higher standards associated with the Community Rating System (CRS) program. The draft Ordinance(s) are the product of adapting the model ordinance to existing City regulations and standards with one exception with the addition of a "25-foot Floodway setback".

Within the current municipal boundaries, two regulatory floodways associated with Bulow Creek and Big Mulberry Creek wetlands exist.

A floodway is defined as "the channel of a river or other riverine 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."

With the intent of protecting residents and associated properties, the "25-foot Floodway

setback" accommodates the potential of dynamic change associated with a watercourse in a natural system.
Recommended Action : Presentation Only

# ORDINANCE 2018-AMENDING SECTION 10.02 OF THE UNIFIED LAND DEVELOPMENT CODE

AN ORDINANCE OF THE CITY OF PALM COAST, FLORIDA, AMENDING THE CITY'S UNIFIED LAND DEVELOPMENT CODE; REPEALING SECTION 10.02 FLOODPLAIN DAMAGE PROTECTION AND REPLACING IT WITH SECTION 10.02 FLOODPLAIN MANAGEMENT TO CLARIFY INTENT AND TO REFLECT CURRENT DEVELOPMENT TRENDS; AMENDING SECTION 14.02 GLOSSARY TO ADD, REVISE AND DELETE DEFINITIONS RELATING TO FLOODPLAIN TERMINOLOGY; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; PROVIDING FOR CONFLICTS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Legislature of the State of Florida has, in Chapter 166 – Municipalities, Florida Statutes, conferred upon local governments the authority to adopt regulations designed to promote 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 Palm Coast 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 Palm Coast was accepted for participation in the National Flood Insurance Program on February 4, 2002 and the City of Palm Coast 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 Council has determined that it is in the public interest to adopt the proposed floodplain management regulations that are coordinated with the Florida Building Code as adopted by Ordinance XXX; and

WHEREAS, the City Council has determined that an amendment to Section 10.02 - Flood Damage Protection and related definitions in Section 14.02 - Glossary is warranted to remain consistent with the National Flood Insurance Program requirements; and

WHEREAS, the City's Planning and Land Development Regulation Board (PLDRB) held a public meeting to hear public input and discuss these proposed revisions, and found the revisions to be consistent with the Comprehensive Plan; and

WHEREAS, at a meeting on \_\_\_\_\_\_, 2018 the PLDRB voted \_\_\_\_ in favor of the proposed revisions; and

**WHEREAS**, the City Council of Palm Coast has determined to revoke the previous Section 10.02 and replace it with the following text as shown below.

# NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA:

**SECTION 1. LEGISLATIVE FINDINGS.** The foregoing whereas clauses are incorporated here as legislative findings by this reference and made a part hereof for all intents and purposes.

<u>SECTION 2. REPEALING SECTION 10.02 - FLOODPLAIN DAMAGE</u>

<u>PROTECTION AND REPLACING IT WITH SECTION 10.02 - FLOODPLAIN</u>

<u>MANAGEMENT OF THE UNIFIED LAND DEVELOPMENT CODE.</u> Section 10.02 - Flood Damage Protection is hereby repealed and replaced by the following:

## Sec. 10.02 Floodplain Management

#### 10.02.01 Administration

- **A. General.** These regulations shall be known as the Floodplain Management Ordinance of the City of Palm Coast, hereinafter referred to as "this article."
- B. **Scope.** The provisions of this article 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, repeair, 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.

#### 10.02.02 Reserved.

#### 10.02.03 Intent.

- A. The purposes of this article 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. Minimize unnecessary disruption of commerce, access and public service during times of flooding;
  - **2.** Require the use of appropriate construction practices in order to prevent or minimize future flood damage;
  - **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;
  - **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;
  - **5.** Minimize damage to public and private facilities and utilities;

- **6.** Help maintain a stable tax base by providing for the sound use and development of flood hazard areas;
- **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.
- B. Coordination with the Florida Building Code. This article 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.
- C. Warning. The degree of flood protection required by this article 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 article 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 guarantee of vested use, existing use, or future use is implied or expressed by compliance with this article.
- **D. Disclaimer of Liability.** This article shall not create liability on the part of City Council of the City of Palm Coast or by any officer or employee thereof for any flood damage that results from reliance on this article or any administrative decision lawfully made thereunder.

# 10.02.04 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 article applies. This article shall apply to all flood hazard areas within the City of Palm Coast as established in Section 10.02.04.C of this article.
- C. Basis for establishing flood hazard areas. The Flood Insurance Study for Flagler County, Florida and Incorporated Areas dated June 6, 2018 and any subsequent revisions, and the accompanying Flood Insurance Rate Maps (FIRM), are adopted by reference as a part of this article 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 City of Palm Coast Community Development Department, 160 Lake Avenue, Palm Coast, Florida 32164.
- **D.** Submission of additional data to establish flood hazard areas. To establish flood hazard areas and base flood elevations, pursuant to Section 10.02.07 of this article 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 Floodplain Administrator 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 a flood hazard area and subject to the requirements of this article 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 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 article shall not be deemed to nullify any provisions of local, state or federal law.

- **F.** Abrogation and greater restrictions. This article supersedes any article in effect for management and development in flood hazard areas. However, it is not intended to repeal or abrogate any other provisions of existing ordinances including but not limited to land development regulations, zoning ordinances, stormwater management regulations, or the Florida Building Code. In the event of a conflict between these regulations and any other regulation, the more restrictive shall govern. This article shall not impair any deed restriction, covenant or easement, but any land that is subject to such interests shall also be governed by this article.
- **G.** Interpretation. In the interpretation and application of this article, all provisions shall be:
  - 1. Considered as minimum requirements;
  - 2. Liberally construed in favor of the governing body; and
  - **3.** Deemed neither to limit nor repeal any other powers granted under state statutes.

# 10.02.05 Duties and Powers of the Floodplain Administrator

- **A. Designation.** The Land Use Administrator is designated the Floodplain Administrator. The Floodplain Administrator may delegate performance of certain duties to other employees.
- **B.** General. The Floodplain Administrator is authorized and directed to administer and enforce the provisions of this article. The Floodplain Administrator shall have the authority to render interpretations of this article consistent with the intent and purpose of this article 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 article without the granting of a variance pursuant to Section 10.02.09 of this article.
- **C. Applications and permits.** The Floodplain Administrator, in coordination with other pertinent offices of the community, shall:
  - **1.** Review applications and plans to determine whether proposed development will be located in flood hazard areas:
  - **2.** Review applications for modifications of any existing development in flood hazard areas for compliance with the requirements of this article;
  - **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;
  - **4.** Provide available flood elevation and flood hazard information;
  - **5.** Determine whether additional flood hazard data shall be obtained from other sources which shall be developed by an applicant;
  - **6.** Review applications to determine whether proposed development will be reasonably safe from flooding;
  - **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 article 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 article.
- D. Substantial improvements 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 the repairs are made;
- **2.** Compare the cost to perform the improvement, the cost to repair a damaged building to its predamaged 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 improvements 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"; for proposed work to repair damage caused by flooding, the determination requires evaluation of previous permits issued to repair flood-related damage as specified in the definition of "substantial damage";
- **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 article 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 10.02.09 of this article.
- **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 article.
- **G.** Inspections. The Floodplain Administrator shall make the required inspections as specified in Section 10.02.08 of this article 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.** In coordination with the Building Official, review all permits for construction within the Special Flood Hazard Areas to ensure that the proposed project meets the flood resistant construction requirements of the *Florida Building Code*, including elevation requirements;
  - **2.** Establish, in coordination with the Building Official, procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to Section 10.02.05.D of this article;
  - **3.** 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);
  - **4.** 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, flood hazard area boundaries, or floodway designations; such submissions shall be made within 6 months of such data becoming available:

- **5.** Review required design certifications and documentation of elevations specified by this article and the Florida Building Code to determine that such certifications and documentations are complete. Elevation certificates shall be provided at three stages, 1) construction drawings, 2) building under construction, and 3) finished construction;
- **6.** Notify the Federal Emergency Management Agency (FEMA) when the corporate boundaries of the City of Palm Coast are modified; and
- 7. 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 article and the flood resistant construction requirements of the Florida Building Code, including Flood Insurance Rate Maps; Letters of Map 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 article; 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 article and the flood resistant construction requirements of the Florida Building Code. These records shall be available for public inspection at City of Palm Coast.

#### 10.02.06 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 article, 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 article 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 article 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 article:
  - 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 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.
- **D. 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 City of Palm Coast. 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 10.04.07.
  - **5.** State the valuation of the proposed work.
  - **6.** Be signed by the applicant or the applicant's authorized agent.
  - **7.** Give such other data and information as required by the Floodplain Administrator.
- **E.** Validity of permit or approval. The issuance of a floodplain development permit or approval pursuant to this article shall not be construed to be a permit for, or approval of, any violation of this article, the Florida Building Codes, or any other ordinance of this community. The issuance shall not prevent the Floodplain Administrator from requiring the correction of errors and omissions.
- **F. Expiration.** A floodplain development permit or approval shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. Extensions for periods of not more than 180 days each shall be requested in writing and justifiable cause shall be demonstrated.
- **G. 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 article or any other ordinance, regulation or requirement of the City.
- **H. Other permits.** Floodplain development permits and building permits shall include a condition or disclaimer that all other applicable state or federal permits be obtained by the applicant before commencement of the permitted development. Such permits may include but not limited to the following:
  - 1. The St. Johns 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 activities subject to the Joint Coastal Permit; section 161.055, F.S.
- **4.** 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.
- **5.** Federal permits and approvals.

#### 10.02.07 Site Plans and Construction Documents

- **A.** Information for development in flood hazard areas. The site plan or construction documents for any development subject to the requirements of this article shall be drawn to scale and shall include, as applicable to the proposed development:
  - 1. Delineation of flood hazard areas, floodway boundaries, 25-foot floodway setback, flood zone(s), base flood elevation(s), and ground elevations if necessary for review of the proposed development.
  - 2. Where base flood elevations or floodway data are not included on the FIRM or in the Flood Insurance Study, they shall be established in accordance with Section 10.02.07.B.2 or Section 10.02.07.B.3 of this article.
  - 3. Where the parcel on which the proposed development will take place will have more than 50 lots or is larger than 5 acres and the base flood elevations are not included on the FIRM or in the Flood Insurance Study, such elevations shall be established in accordance with Section 10.02.07.B.1 of this article.
  - 4. 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.
  - 5. Location, extent, amount, and proposed final grades of any filling, grading, or excavation.
  - 6. 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.
  - 7. Existing and proposed alignment of any proposed alteration of a watercourse.
- **B.** Information in flood hazard areas without base flood elevations (approximate Zone A). Where flood hazard areas are delineated on the FIRM and base flood elevation data have not been provided, the Floodplain Administrator shall:
  - 1. Require the applicant to include base flood elevation data prepared in accordance with currently accepted engineering practices.
  - 2. Obtain, review, and provide to applicants base flood elevation and floodway data available from a federal or state agency or other source, or require the applicant to obtain and use base flood elevation and floodway data available from a federal or state agency or other source.
  - 3. Where base flood elevation data and floodway data are not available from another source, where the available data are deemed by the Floodplain Administrator to not reasonably reflect flooding conditions, or where the available data are known to be scientifically or technically incorrect or otherwise inadequate:
    - **a.** Require the applicant to include base flood elevation data prepared in accordance with currently accepted engineering practices; or
    - **b.** Specify that the base flood elevation is two (2) feet above the highest adjacent grade at the location of the development, provided there is no evidence indicating flood depths have been or may be greater than two (2) feet.

- 4. Where the base flood elevation data are to be used to support a Letter of Map Change from FEMA, advise the applicant that the analyses shall be prepared by a Florida licensed engineer in a format required by FEMA, and that it shall be the responsibility of the applicant to satisfy the submittal requirements and pay the processing fees.
- C. 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 development activities proposed to be located in a regulatory floodway or within the 25-foot floodway setback, a floodway encroachment analysis that demonstrates that the encroachment of the proposed development will not cause any increase in base flood elevations; where the applicant proposes to undertake development activities that do increase base flood elevations, the applicant shall submit such analyses to FEMA as specified in Section 10.02.07.D of this article and shall submit the Conditional Letter of Map Revision, if issued by FEMA, with the site plan and construction documents.
  - 2. For development activities proposed to be located in a riverine flood hazard area for which base flood elevations are included in the Flood Insurance Study on the FIRM and floodways have not been designated, hydrologic and hydraulic analyses that demonstrate that the cumulative effect of the proposed development, when combined with all other existing and anticipated flood hazard area encroachments, will not increase the base flood elevation at any point within the community. This requirement does not apply in isolated flood hazard areas not connected to a riverine flood hazard area or in flood hazard areas identified as Zone "O" or Zone "AH".
  - 3. 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 10.02.07.D of this article.
- **D. Submission of additional data.** When additional hydrologic, hydraulic or other engineering data, studies, and additional analyses are submitted to support an application, the applicant shall seek a Letter of Map Change from FEMA to change the base flood elevations, change floodway boundaries, 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.

### 10.02.08 Inspections

- **A. General.** Development for which a floodplain development permit or approval is required shall be subject to inspection.
- **B.** Development other than buildings and structures. The Floodplain Administrator shall inspect all development to determine compliance with the requirements of this article and the conditions of issued floodplain development permits or approvals.
- C. 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 article and the conditions of issued floodplain development permits or approvals.
- **D.** 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:

- 1. If a design flood elevation was used to determine the required elevation of the lowest floor, certification of elevation of the lowest floor prepared and sealed by a Florida licensed professional surveyor; or
- **2.** If the elevation used to determine the required elevation of the lowest floor was determined in accordance with Section 10.02.07.B.3.b of this article, the documentation of height of the lowest floor above highest adjacent grade, prepared by the owner or the owner's authorized agent.
- E. Buildings, structures and facilities exempt from the *Florida Building Code*, final inspection. 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 10.02.08.D of this article.
- **F.** Manufactured homes. The Building Official shall inspect manufactured homes that are installed or replaced in flood hazard areas to determine compliance with the requirements of this article 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 Building Official.

# 10.02.09 Variances and Appeals

- A. General. The Land Use Administrator and the City of Palm Coast Planning and Land Development Regulation Board shall hear and decide on requests for appeals and the Planning and Land Development Regulation Board shall hear requests for variances from the strict application of this article. Pursuant to Section 553.73(5), F.S., the Planning and Land Development Regulation Board shall 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. Same process as set out in Section 2.16, of the Land Development Code.
- C. Limitations on authority to grant variances. The Planning and Land Development Regulation Board shall base its decisions on variances on technical justifications submitted by applicants, the considerations for issuance in Section 10.02.09.H of this article, the conditions of issuance set forth in Section 10.02.09.I of this article, and the comments and recommendations of the Land Use Administrator, Floodplain Administrator and the Building Official. The Planning and Land Development Regulation Board has the right to attach such conditions as it deems necessary to further the purposes and objectives of this article.
- **D.** Restrictions in floodways. A variance shall not be issued for any proposed development in a floodway if any increase in base flood elevations would result, as evidenced by the applicable analyses and certifications required in Section 10.02.07.C of this article.
- **E. Historic buildings.** 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 12 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 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.
- **F. 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 article, provided the variance meets the requirements of Section 10.02.09.D, 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.

- **G.** Alteration of sand dunes or mangrove stands in coastal high hazard areas. A variance shall not be issued for any proposed alteration of sand dunes or mangrove stands in coastal high hazard areas (Zone V) unless the applicant submits, and the City approves, an engineering analysis that demonstrates the proposed alteration will not increase the potential for flood damage or the potential for erosion. Any such variance shall not be issued unless the proposed alteration is approved by the Florida Department of Environmental Protection. This limitation shall not apply to mangrove stands within City canals.
- **H.** Considerations for issuance of variances. In reviewing requests for variances, the Planning and Land Development Regulation Board shall consider all technical evaluations, all relevant factors, all other applicable provisions of the Florida Building Code, Land Development Code and this article, 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 with existing and anticipated development;
  - **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.

#### I. 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 article or the required elevation standards.
- 2. Determination by the Planning and Land Development Regulation 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.** Literal interpretation of the provision of this Land Development Code would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of this Land Development Code and would result in unnecessary and undue hardship on the applicant;
  - **c.** 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;
  - **d.** The variance is the minimum necessary, considering the flood hazard, to afford relief;

- **e.** The special conditions and circumstances are not self-imposed and do not result from the actions of the applicant; and
- **f.** Receipt of a signed statement by the applicant that the variance, if granted, shall be recorded in the Office of the Clerk of Court in such a manner that it appears in the chain of title of the affected parcel of land;
- g. 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;
- h. The proposed development must not be in conflict with or contrary to the public interest;
- i. The proposed development must be consistent with the Comprehensive Plan and the provisions of this Land Development Code;
- **j.** The proposed development must not impose a significant financial liability or hardship for the City;
- **k.** The proposed development must not create an unreasonable hazard, or nuisance, or constitute a threat to the general health, welfare, or safety of the City's inhabitants; and
- **l.** The proposed development must comply with all other applicable local, state, and federal laws, statutes, ordinances, regulators, or codes.

#### **10.02.10 Violations**

- **A. Violations.** Any development that is not within the scope of the Florida Building Code but that is regulated by this article that is performed without an issued permit, that is in conflict with an issued permit, or that does not fully comply with this article, shall be deemed a violation of this article. 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 article 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 article 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.** Unlawful continuance. Any person who shall continue any work after having been served with a notice of violation of a stop work order, except such work as that a person is directed to perform to remove or remedy a violation or unsafe condition, shall be subject to penalties as prescribed by law.

# 10.02.11 Flood Resistant Development Design and construction of buildings, structures and facilities exempt from the Florida Building Code.

(i) Pursuant to Section 10.02.06.C of this article, 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 10.02.17 of this article.

#### 10.02.12 Subdivisions

- **A. Minimum requirements.** Subdivision proposals, including proposals for manufactured home parks and subdivisions, 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.
- **B.** Subdivision plats. 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, floodway boundaries, 25-foot floodway setback, flood zones, and design flood elevations, as appropriate, shall be shown on preliminary plats;
  - 2. All subdivisions where the base flood elevation is not included on the FIRM, the base elevations are determined in accordance with Section 10.02.07.B.1. of this article; and
  - 3. Compliance with the site improvement and utilities requirements of Section 10.02.13 of this article.
  - 4. Any reduction in the water-holding capacity of the flood hazard area caused by development, structures, and site improvements shall be compensated such that no increase in water surface elevations, peak discharges, or velocities occurs either upstream, downstream, or in the vicinity of the site during occurrence of flood events up to and including the base flood.
  - 5. Applicant shall ensure that technical data reflecting base flood elevation changes or flood hazard area boundary changes are submitted to Federal Emergency Management Agency, with the City's endorsement, for a conditional Flood Insurance Rate Map revision. Prior to approval of final plat, an issued Letter of Map Change determination from FEMA is required.

#### 10.02.13 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.
- **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.
- **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.** Compensatory storage. Any reduction in the water-holding capacity of the flood hazard area caused by development, structures, and site improvements shall be compensated such that no increase in water

- surface elevations, peak discharges, or velocities occurs either upstream, downstream, or in the vicinity of the site during occurrence of flood events up to and including the base flood.
- **E.** Limitations on sites in regulatory floodways and 25-foot floodway setback. No development, including but not limited to site improvements, and land disturbing activity involving fill or regrading, shall be authorized in the regulatory floodway or 25-foot floodway setback unless the floodway encroachment analysis required in Section 10.02.07.C.1 of this article demonstrates that the proposed development or land disturbing activity will not result in any increase in the base flood elevation.
- **F.** Limitations on placement of fill. Subject to the limitations of this article, 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. In addition to these requirements, if intended to support buildings and structures (Zone A only), fill shall comply with the requirements of the Florida Building Code.
- **G.** Limitations on sites in coastal high hazard areas (Zone V). In coastal high hazard areas, alteration of sand dunes and mangrove stands shall not be permitted. Construction or restoration of dunes under or around elevated buildings and structures shall comply with Section 10.02.17.I.3 of this article.

#### 10.02.14 Manufactured Homes

- **A. General.** Manufactured homes shall not be installed in floodways and 25-foot floodway setback except in an existing manufactured home park or subdivision. 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 article.
- B. **Foundations** All 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 article. Foundations for manufactured homes subject to Section 10.02.14.F of this article are permitted to be reinforced piers or other foundation elements of at least equal strength.
  - 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 article.
- 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 10.02.14.E or Section 10.02.14.F of this article, as applicable.
- E. **General elevation requirement.** Unless subject to the requirements of Section 10.02.14.F of this article, all manufactured homes that are placed, replaced, or substantially improved on sites located:
  - 1. Outside of a manufactured home park or subdivision;
  - **2.** In a new manufactured home park or subdivision;
  - 3. In an expansion to an existing manufactured home park or subdivision; or
  - **4.** In 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 10.02.14.E of this article, 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 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 shall comply with the requirements of the Florida Building Code Residential Section R322.2 or Section R322.3 for such enclosed areas, as applicable to the flood hazard area.
- 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.

### 10.02.15 Recreational Vehicles and Trailer Parks

- **A. Temporary placement.** Recreational vehicles and park trailers placed temporarily in flood hazard areas shall:
  - **1.** Be prohibited to park or store a recreational vehicle for more than a total of three (3) days, or any part thereof in any consecutive seven (7) day period on a residential driveway; 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 10.02.15.A of this article for temporary placement shall meet the requirements of Section 10.02.14 of this article for manufactured homes.

#### 10.02.16 Tanks

- **A.** Underground tanks. 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.
- **B.** Above-ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of Section 10.02.16.C of this article 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.

### **10.02.17 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 article or the Florida Building Code, shall:
  - 1. Be located and constructed to minimize flood damage;
  - 2. Meet the limitations of Section 10.02.13.E of this article if located in a regulated floodway;
  - **3.** Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design flood;
  - 4. Be constructed of flood damage-resistant materials; and
  - **5.** Have mechanical, plumbing, and electrical systems above the design flood elevation or meet the requirements of ASCE 24, 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.** Fences in regulated floodways. Fences in regulated floodways that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of Section 10.02.13.E of this article.
- C. Retaining walls, sidewalks and driveways in regulated floodways. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of Section 10.02.13.E of this article.
- **D. Roads and watercourse crossings in regulated floodways.** Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated floodways, shall meet the limitations of Section 10.02.13.E of this article. Alteration of a watercourse that is part of a road or watercourse crossing shall meet the requirements of Section 10.02.07.C.3 of this article.
- E. 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.
- **F.** Decks and patios in coastal high hazard areas (Zone V). 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 runup 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 runup and wave reflection.
- **G.** 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 runup and wave reflection that would increase damage to adjacent buildings and structures. Such other development activities include but are not limited to:
  - 1. Bulkheads, seawalls, retaining walls, revetments, and similar erosion control structures;
  - 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.

#### H. 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 runup 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 runup and wave reflection if the scale and location of the dune work is consistent with local beach-dune morphology and the vertical clearance is maintained between the top of the sand dune and the lowest horizontal structural member of the building.

#### 10.02.18 Critical Facilities

A. New critical facilities shall be directed and sited away from special flood hazard areas. A critical facility shall have at least one (1) access road connected to land outside the special flood hazard area that is capable of supporting a 4,000-pound vehicle. The top of the road shall be no lower than six (6) inches below base flood elevation.

B. New critical facilities constructed within a Special Flood Hazard Area without a determined base flood elevation shall not be constructed unless base flood elevations are determined and certified data is provided from a Florida licensed professional engineer, The technical data shall be submitted to the Federal Emergency Agency with the City's endorsement for a Letter of Map Change to remove the entire project area from the Special Flood Hazard Area. Prior to close out of the permit, a Letter of Map Change determination shall be submitted to the Floodplain Administrator.

# SECTION 3. REVISING CHAPTER 14 – GLOSSARY OF THE UNIFIED LAND DEVELOPMENT CODE.

Chapter 14 – Glossary; is hereby amended by the following:

#### Sec. 14.02. Glossary

Addition (to an existing building): Relating to flood damage protection, this term means any walled and roofed expansion to the perimeter of a building in which a common load-bearing wall other than a firewall connects the addition. Any walled and roofed addition connected by a firewall or is separated by independent perimeter load-bearing walls is new construction.

<u>Alteration of a watercourse:</u> 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.

Appeal: Relating to flood damage protection, means a request for review of the Floodplain Administrator's interpretation of any provision of Section 10.02, this term means any walled and roofed expansion to the perimeter of a building in which a common load-bearing wall other than a firewall connects the addition. Any walled and roofed addition connected by a firewall or is separated by independent perimeter load-bearing walls is new construction.

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.

<u>Base flood:</u> A flood having a 1-percent chance of being equaled or exceeded in any given year. The base flood is commonly referred to as the "100-year flood" or the "1-percent-annual chance flood."

Base flood elevation: The <u>elevation of flood having a one percent chance of being equaled or exceeded in any given year, relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) or other datum specified on the Flood Insurance Rate Map.</u>

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

Breakaway wall: 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.

Coastal high hazard area: Relating to flood damage protection, this term means an area of special flood hazard 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. 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.

Coastal velocity hazard area: An area of special flood hazard 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.

Compensatory storage (floodplain): An artificially excavated hydraulically equivalent volume of storage used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the floodplain.

Construction, existing: See Structure, existing.

Construction, new: Relating to flood damage protection and the flood resistant requirements of the Florida Building Code, this term means any Any structure for which the "start of construction" commenced after February 5, 1986, or standard based upon specific technical base flood elevation data that establishes the area of special flood hazard. The term also includes any subsequent improvements to such structure.

Construction, start of (other than new construction or substantial improvements under the Coastal Barrier Resources Act Title 16, Chapter 55, United States Code): Relating to flood damage protection, this term includes substantial improvement and means the date the building permit was issued for new construction and substantial improvements, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a building including, but not limited to, a manufactured home and mobile home on a site such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home or mobile home on a foundation. Permanent construction does not include land preparation such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings such as garages or sheds not occupied as dwelling units and are not part of the main building. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Critical facilities: Any facility that, if flooded or impacted by a natural disaster, would result in severe consequences to public health and safety. Critical facilities include, but are not limited to, hospitals, nursing homes, police stations, fire stations, emergency operation centers, chemical or hazardous materials storage facilities, and utility facilities. The term includes facilities that are assigned Flood Design Class 3 and Flood Design Class 4 pursuant to the Florida Building Code, Building.

Design flood: The flood associated with the greater of the following two areas:

- (1) Area with a floodplain subject to a 1-percent or greater chance of flooding in any year; or
- (2) 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.

Development: Relating to flood damage protection, this term means any man-made change to improved or unimproved real estate including, but not limited to, buildings or other structures, <u>tanks</u>, mining, dredging, filling, grading, paving, excavating, drilling operations, or <u>temporary or</u> permanent storage of materials or equipment<u>or other</u> land disturbing activities.

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

Elevation: The placement of a structure above flood level to minimize or prevent flood damages.

<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.

*Flood* or *flooding*: 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 control: Keeping floodwaters away from specific developments or populated areas by the construction of flood storage reservoirs, channel alterations, dikes and levees, bypass channels, or other engineering works.

<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.

Flood elevation study: See Flood insurance study.

Flood fringe: Relating to flood damage protection, this term means the portion of the floodplain that lies beyond the floodway and serves as a temporary storage area for floodwaters during a flood. This section receives waters that are shallower and of lower velocities than those of the floodway.

Flood hazard area: The greater of the following two areas:

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

Flood hazard boundary map (FHBM): Relating to flood damage protection, this term means an official map of a community issued by the Federal Emergency Management Agency that defines the boundaries of the areas of special flood hazard as Zone A.

Flood insurance rate map: An official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

Flood insurance study: The official report provided by the Federal Emergency Management Agency. It is an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations or an examination, elevation, and determination of mudslide (i.e., mudflow) and/or flood related erosion hazards. The report contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.

*Floodplain:* Any land area susceptible to being inundated by water from any source. Also, see definition of *flood* or *flooding*.

*Floodplain Administrator:* The office or position designated and charged with the administration and enforcement of this article (may be referred to as the Floodplain Manager).

<u>Floodplain development permit or approval</u>: 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 located in flood hazard areas and that are determined to be compliant with this article.

Floodplain variance: See Variance, floodplain.

Flood prone: See Floodplain.

Floodproofing: Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved property, water, and sanitary facilities, structures and their contents.

Floodwall: Relating to flood damage protection, this term means a constructed barrier of resistant material, such as concrete or masonry block, designed to keep water away from structure.

*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 one foot.

Floodway encroachment analysis: An engineering analysis of the impact that a proposed encroachment into a floodway is expected to have on the floodway boundaries and base flood elevations; the evaluation shall be prepared by a qualified Florida licensed engineer using standard engineering methods and models.

Floor: 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.

Floor, lowest: The lowest floor of the lowest enclosed area (including, but not limited to, basement). An unfinished or flood resistant enclosure used solely for parking of vehicles, building access, or storage in an area other than a basement is not considered a building's lowest floor, provided such enclosure is not built to render the structure in

violation of the nonelevation design standards of Chapter 10. In Coastal High Hazard Areas, the lowest floor is considered the horizontal structure member of that floor.

Floor, lowest: 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.

Florida Building Code (FBC): 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, Florida Buildi

Footing: Relating to flood damage protection, this term means the enlarged base of a foundation wall, pier, or column, designed to spread the load of the structure so that it does not exceed the soil bearing capacity.

Foundation walls: Relating to flood damage protection, this means a support structure that connects the foundation to the main portion of the building or superstructure.

*Freeboard:* Relating to flood damage protection, this term means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

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. -and/or water dependent facility: Relating to flood damage protection, this term means a use and/or facility that 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 use and 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 and uses.

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

Grade, slab on: Relating to flood damage protection, this term means a structural design where the first floor sits directly on a poured concrete slab that sits directly on the ground.

*Historic structure:* Any structure that is determined eligible for the exception to the flood hazard area requirements of the Florida Building Code, Existing Building, Chapter 12 Historic Buildings. Any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places in states with historic preservation programs that have been approved by the Secretary of the Interior; or
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs certified either:
  - a. By an approved state program as determined by the Secretary of the Interior; or
  - b. Directly by the Secretary of the Interior in states without approved programs.

Improvement, substantial: Any combination of repairs, reconstruction, rehabilitation, alteration, additions or improvements to a structure taking place ten years from the date of such action in which the cumulative cost equals or exceeds 50 percent of the market value before the start of construction of the improvement of the structure. This term

includes structures that have incurred "substantial damage", regardless of the actual repair work performed. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the structure commences, whether or not that alteration affects the external dimensions of the structure. However, the term does not include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications identified by the Land Use Administrator and which are solely necessary to assure safe living conditions. This term does not include any alteration of a "historic structure", provided the alteration will not preclude the structure's continued designation as an "historic structure."

Independent scientific body: Relating to flood damage protection, this term means a nonfederal technical or scientific organization involved in the study of land use planning, floodplain management, hydrology, geology, geography, or any other related field of study concerned with flooding.

<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:

- (1) 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.
- (2) <u>Letter of Map Revision (LOMR)</u>: 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.
- (3) 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.
- (4) <u>Conditional Letter of Map Revision (CLOMR)</u>: 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.

*Levee:* Relating to flood damage protection, this term means a man-made structure; usually an earthen embankment designed and constructed in accordance with sound engineering practices to contain, control, or diverts the flow of water to provide protection from temporary flooding.

Level of protection: Relating to flood damage protection, this term means the greatest flood level against which a protective measure is designed to be fully effective.

<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:

- (1) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or
- (2) <u>Designed primarily for transportation of persons and has a capacity of more than twelve (12) persons; or</u>
- (3) Available with special features enabling off-street or off-highway operation and use.

Loss, repetitive: Relating to flood damage protection, this term means two flood-related losses within a ten-year period, when combined, must equal or exceed 50 percent of market value.

Mangrove stand: An assemblage of mangrove trees which is mostly low trees noted for a copious development of interlacing adventitious roots above the ground and which contain one or more of the following species: black mangrove (Avicennia nitida); red mangrove (Rhizophora mangle); white mangrove (Longunculariaracemosa); and buttonwood (Conocarpus erecta).

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." A mobile home fabricated on or after June 15, 1976 in an off-site manufacturing facility for installation or assembly at the building site, which each section bears the insignia of the State Department of Community Affairs. A structure that is transportable in one or more sections and built on a permanent chassis designed to be used with a permanent foundation when connected to the required utilities. The term shall not include recreational vehicles. Relating to flood damage protection, the term means a building, transportable in one or more sections, built on a permanent chassis designed for use with or without a permanent foundation when connected to the required utilities. The term also includes park trailers and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

Manufactured home (mobile home) park/subdivision, existing: Relating to flood damage protection, this term means a manufactured home (mobile home) park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes (mobile 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 February 5, 1986 or standard based upon specific technical base flood elevation data which established the area of special flood hazard.

Manufactured home/mobile home/park/subdivision, expansion to an existing: Relating to flood damage protection, this term means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes (mobile homes) are to be affixed (including the minimum installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before February 5, 1986.

Manufactured home/mobile home park/subdivision, new: Relating to flood damage protection, this term is defined as a manufactured (mobile home) park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes (mobile 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 5, 1986.

Manufactured home/mobile home park/subdivision, substantially improved existing: Where the repair, reconstruction, rehabilitation, or improvement of the streets, utilities, and pads equals or exceeds 50 percent of the value of the streets, utilities, and pads before the repair, reconstruction, or improvement commenced.

Market value: Relating to flood damage protection, this term means the Property Appraiser's 'Just Value' of the structure, excluding the land, or an appraisal of the structure by a qualified independent appraiser eertified property appraiser. For the purposes of determining "substantial damage" per incident, the market value is the value prior to the damage occurring. For purposes of determining "substantial improvements", the market value is the value prior to the start of construction of each improvement.

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 article, 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.

Mean sea level: The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the flood plain. Relating to flood damage protection, this term is synonymous with 'National Geodetic Vertical Datum' (NGVD).

Mobile home: A structure, transportable in one or more sections, which is eight body feet or more in width and which is built on an integral chasses and designed to be used as a dwelling when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained therein. This structure is required to bear the insignia of the U.S. Department of Housing and Urban Development (HUD). Relating to flood damage protection, this term means a building that is transportable in one or more sections and built on a permanent chassis designed for use with or without a permanent foundation when connected to the required utilities. The term also includes

park trailers and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

National Geodetic Vertical Datum (NGVD): Relating to flood damage protection, this term means, as corrected in 1929, a vertical control used as a reference for establishing varying elevations within the floodplain.

One hundred (100)-year flood elevation: See Base flood elevation.

<u>Park trailer</u>: 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 section 320.01, F.S.]

Post: Relating to flood damage protection, this term means long upright support units for a building that are set in pre-dug holes and backfilled with compacted material. Each post usually requires bracing to other units. They are also known as columns, although they are usually made of wood.

Primary frontal dune: Relating to flood damage protection, this term means a continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion 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 from a relatively steep slope to a relatively mild slope.

Recreational vehicle: Relating to flood damage protection, this term means a vehicle that is:

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

*Relocation:* Relating to flood damage protection, this term means the moving of a structure from a flood area to a new location, normally to one where there is not threat of flooding.

Repetitive loss: See Loss, repetitive.

Retrofitting: Relating to flood damage protection, this term means floodproofing measures taken on an existing structure.

*Riprap:* Relating to flood damage protection, this term means broken stone, cut stone blocks, or rubble placed on slopes to protect them from erosion or scouring caused by floodwaters or wave action.

*Riverine:* Relating to flood damage protection, this term means relating to, formed by, or resembling a river including, but not limited to, tributaries, stream, brook, etc.

Runoff: Relating to flood damage protection, this term means that portion of precipitation that is not intercepted by vegetation, absorbed by the land surface, or evaporated, and thus flows overland into a depression, stream, lake, or ocean (runoff, called immediate subsurface runoff, also takes place in the upper layers of the soil).

Sand Dunes: Naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Setback, 25-foot floodway: The area between the outer boundary of the regulatory floodway associated with natural named wetland systems including, but not limited to Big Mulberry Branch and Bulow Creek shown on the FIRM and a line parallel thereto at a distance of 25 feet. The purpose of the 25-foot floodway setback is to minimize encroachments to protect floodplain storage and natural floodplain functions.

Setback, 30-year: Relating to flood damage protection, this term means a distance equal to 30 times the average annual long-term recession rate at a site measured from the reference feature.

Shallow flooding, areas of: A designated AO, AH, AR/AO, AR/AH or VO Zone on a community's FIRM with a one percent or greater annual chance of flooding to an average depths of one foot to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Sheet flow (area): See shallow flooding, areas of.

Slab on grade: See Grade, slab on.

Special flood hazard areas: The land in the flood plain within a community subject to a one percent or greater change of flooding in any given year. An area in the floodplain subject to a one (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.

Start of construction: See Construction, start of.

Structure: Anything constructed, installed or portable, the use of which requires a location on a parcel of land, such as buildings, manufactured homes, mobile homes, fences, billboards, swimming pools, poles, pipelines, transmission lines, advertising signs, a gas or liquid storage tank, seawall, bulkhead, revetment, or other man-made facilities or infrastructure. Relating to flood damage protection, this term means a walled and roofed building, including, but not limited to, a gas or liquid storage tank that is principally above ground, including, but not limited to, a manufactured home and mobile home. For the purposes of Subsection 4.01.05—Residential Docking Facilities along Saltwater and Freshwater Canals (and Intracoastal Waterway, as applicable) and Section 4.16—Marinas, this term means anything constructed or otherwise located or operated on or over water, extended over water, or affixed to something that is or will be located on the ground and covered by water, or is located on land and is an essential part of the operation or an integral system of the marina such as, by way of example only, fuel and electrical systems.

Structure, existing <u>and Building</u>, <u>existing</u>: Relating to flood damage protection, this term means any structure <u>or building</u> for which the "start of construction" commenced before February 5, 1986 or standard based upon specific technical base flood elevation data that establishes the area of special flood hazard.

Substantial damage: Relating to flood damage protection, this term means damage of any origin including, but not limited to, a gas or liquid storage tank that is principally above ground including, but not limited to, a manufactured home and mobile home.

Substantial damage: 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. The term also includes flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

<u>Substantial improvement</u>: Any combination of repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure taking place during a 10-year period, the cumulative cost of which equals or exceeds fifty (50) percent of the market value of the building or structure before the improvement or repair is started. The period of accumulation begins when the first improvement or repair of each building is permitted subsequent to August 19, 2008. 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 either:

- (1) 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.
- (2) Any alteration of a historic structure provided the alteration will not preclude the structure's continued designation as a historic structure.

Substantial improvement: See Improvement, substantial.

Thirty (30)-year setback: See Setback, 30-year.

Variance, floodplain: Relating to flood damage protection, this term means a grant of relief from the requirements of this Section 10.02 or the flood resistant construction requirements of the Florida Building Code that permits construction in a manner otherwise prohibited by this Section 10.02 or the flood resistant construction requirements of the Florida Building Code where specific enforcement would result in unnecessary hardship.

Venting: Relating to flood damage protection, this term means a system designed to allow floodwaters to enter an enclosure, usually the interior of foundation walls, so that the rising water does not create a dangerous differential in

hydrostatic pressure. This is usually achieved through small openings in the wall, such as a missing or rotted brick, or concrete block, or small pipe.

Violation, remedy a: Relating to flood damage protection, this term means to bring the structure or other development into compliance with state or local floodplain management regulations or if this is not possible, to reduce the impacts of its noncompliance. Ways to reduce impact include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

Water dependent facility: A use and/or 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 use and 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 and uses.

Watercourse: A natural or artificial channel in which a flow of water occurs either continually or intermittently.

*Watershed:* Relating to flood damage protection, this term means an area that drains to a single point. In a natural basin, this is the area contributing flow to a given place or stream.

Water table: Relating to flood damage protection, this term means the uppermost zone of water saturation in the ground.

<u>Water surface elevation:</u> The height, in relation to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) of 1988, or other datum specified on the Flood Insurance Rate Map (FIRM, of floods of various magnitudes and frequencies in the floodplains of coastal and riverine areas.

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

## **SECTION 4. APPLICABILITY.**

For the purposes of jurisdictional applicability, this ordinance shall apply in the City of Palm Coast, Florida. This ordinance shall apply to all applications for development, including building permit applications and subdivision proposals, submitted on or after the effective date of this ordinance.

# SECTION 5. INCLUSION INTO THE CODE OF ORDINANCES.

It is the intent of the City Council of the City of Palm Coast that the provisions of this ordinance shall become and be made a part of the Palm Coast Code of Ordinances, and that the sections of this ordinance may be renumbered or relettered and the word "ordinance" may be changed to "section," "article," "regulation," or such other appropriate word or phrase in order to accomplish such intentions.

# **SECTION 6. SEVERABILITY.**

If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any part thereof, other than the part so declared.

## **SECTION 7. EFFECTIVE DATE.**

	This Ordinance shall become effective immediately upon its passage and adoption.			
	Approved on first reading this	day of	, 2018.	
2018.	Adopted on the second reading af	ter due public not	ce and hearing this day of	

#### CITY OF PALM COAST, FLORIDA

ATTEST:	MILISSA HOLLAND, MAYOR
VIRGINIA SMITH, CITY CLERK	

# ORDINANCE 2018-AMENDING CHAPTER 15 OF THE CODE OF ORDINANCES

AN ORDINANCE OF THE CITY OF PALM COAST, FLORIDA, AMENDING THE CITY'S CODE OF ORDINANCES, CHAPTER 15 – BUILDINGS AND BUILDING REGULATIONS ADOPTING LOCAL TECHNICAL AMENDMENTS TO THE FLORIDA BUILDING CODE; PROVIDING A FISCAL IMPACT STATEMENT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; PROVIDING FOR CONFLICTS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Legislature of the State of Florida has, in Chapter 166 – 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 City of Palm Coast participates in the National Flood Insurance Program, adopted floodplain management regulations on August 19, 2008; and

WHEREAS, Chapter 553, Florida Statutes, allows for local technical amendments to the *Florida Building Code* that provide for more stringent requirements than those specified in the Code and allows adoption of local technical amendments to the Florida Building Code to implement the National Flood Insurance Program and incentives; and

WHEREAS, the City Council, previously adopted requirements (1) to increase the minimum elevation requirement in high risk flood hazard areas; (2) to limit partitioning of enclosed areas below elevated buildings and to limit access to enclosed areas; (3) to require buildings that sustain repetitive flood damage over a 10-year period to be included in the definition of "substantial damage;" and (4) to require accumulation of costs of improvements and repairs of buildings, based on issued building permits, over a 10-year period, for the purpose of participating in the National Flood Insurance Program's Community Rating System, and, pursuant to section 553.73(5), F.S., is formatting those requirement to coordinate with the *Florida Building Code*.

**NOW, THEREFORE, BE IT ORDAINED** by the City Council of the City of Palm Coast that the following local technical amendments to the *Florida Building Code*, are hereby adopted.

SECTION 1. Chapter 15 – Buildings and Building Regulations is hereby amended to add local technical amendments to the *Florida Building Code*.

# Sec. 15-35. – Technical Amendments to the Florida Building Code, Building

**SUBSTANTIAL DAMAGE**. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The term also includes flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

**SUBSTANTIAL IMPROVEMENT.** Any <u>combination of</u> repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure <u>taking place during a 10-year period</u>, the <u>cumulative</u> cost of which equals or exceeds fifty (50) percent of the market value of the building or structure before the improvement or repair is started. The period of accumulation begins when

the first improvement or repair of each building is permitted subsequent to August 19, 2008. 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 either: [Also defined in FBC, B, Section 202.]

- (1) 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.
- (2) Any alteration of a historic structure provided the alteration will not preclude the structure's continued designation as a historic structure.

1612.4.2 Elevation requirements. The minimum elevation requirements for coastal high hazard areas (Zone V) and Coastal A Zones shall be as specified in ASCE 24 or the base flood elevation plus 2 feet (610 mm), whichever is higher.

1612.4.3 Additional requirements for enclosed areas. In addition to the requirements of ASCE 24, enclosed areas below the design flood elevation shall not be partitioned or finished into separate rooms except for stairwells, ramps, and elevators.

#### Sec. 15-36. – Technical Amendments to the Florida Building Code, Existing Building

**SUBSTANTIAL DAMAGE**. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The term also includes flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

**SUBSTANTIAL IMPROVEMENT.** Any <u>combination of</u> repair, reconstruction, rehabilitation, addition, or other improvement of a building or structure <u>taking place during a 10-year period</u>, the <u>cumulative</u> cost of which equals or exceeds fifty (50) percent of the market value of the building or structure before the improvement or repair is started. <u>The period of accumulation begins when the first improvement or repair of each building is permitted subsequent to August 19, 2008. 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 either: [Also defined in FBC, B, Section 202.]</u>

- (1) 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.
- (2) Any alteration of a historic structure provided the alteration will not preclude the structure's continued designation as a historic structure.

# Sec. 15-37. – Technical Amendments to the Florida Building Code, Residential

**R322.2.2** Enclosed areas below design flood elevation. Enclosed areas, including crawl spaces, that are below the design flood elevation shall:

1. Be used solely for parking of vehicles, building access or storage. The interior portion of such enclosed areas shall not be partitioned or finished into separate rooms except for stairwells, ramps, and elevators, unless a partition is required by the fire code. The limitation on partitions does not apply to load bearing walls interior to perimeter wall (crawlspace) foundations. Access to enclosed areas shall be the minimum necessary to allow for the parking of vehicles (garage door) or limited storage of maintenance

equipment used in connection with the premises (standard exterior door) or entry to the building (stairway or elevator).

Remainder unchanged

### **R322.3.2** Elevation requirements.

- 1. Buildings and structures erected within coastal high-hazard areas and Coastal A Zones, shall be elevated so that the bottom of the lowest horizontal structure members supporting the lowest floor, with the exception of pilings, pile caps, columns, grade beams and bracing, is elevated to or above the base flood elevation <u>plus 2 feet plus 1 foot (305 mm)</u> or the design flood elevation, whichever is higher.
- 2. Basement floors that are below grade on all sides are prohibited.
- 3. The use of fill for structural support is prohibited.
- 4. 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 and walkways.
- 5. Walls and partitions enclosing areas below the design flood elevation shall meet the requirements of Sections R322.3.4 and R322.3.5.

**R322.3.4 Walls below design flood elevation.** Walls and partitions are permitted below the elevated floor, provided that such walls and partitions are not part of the structural support of the building or structure and:

- 1. Electrical, mechanical, and plumbing system components are not to be mounted on or penetrate through walls that are designed to break away under flood loads; and
- 2. Are constructed with insect screening or open lattice; or
- 3. Are designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a design safe loading resistance of not less than 10 (470 Pa) and no more than 20 pounds per square foot (958 Pa); or
- 4. Where wind loading values of this code exceed 20 pounds per square foot (958 Pa), the construction documents shall include documentation prepared and sealed by a registered design professional that:
  - 4.1. The walls and partitions below the design flood elevation have been designed to collapse from a water load less than that which would occur during the design flood.
  - 4.2. The elevated portion of the building and supporting foundation system have been designed to withstand the effects of wind and flood loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the design flood. Wind loading values used shall be those required by this code.

R322.3.5 Enclosed areas below the design flood elevation. Enclosed areas below the design flood elevation shall be used solely for parking of vehicles, building access or storage. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms except for stairwells, ramps, and elevators, unless a partition is required by the fire code. Access to enclosed areas shall be the minimum necessary to allow for the parking of vehicles (garage door) or limited

storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the building (stairway or elevator).

#### **SECTION 2. FISCAL IMPACT STATEMENT.**

In terms of design, plan application review, construction and inspection of buildings and structures, the cost impact as an overall average is negligible in regard to the local technical amendments because all development has been subject to the requirements of the local floodplain management ordinance adopted for participation in the National Flood Insurance Program. In terms of lower potential for flood damage, there will be continued savings and benefits to consumers.

#### **SECTION 3. APPLICABILITY.**

For the purposes of jurisdictional applicability, this ordinance shall apply to all applications for building permits in flood hazard areas submitted on or after the effective date.

#### SECTION 4. INCLUSION INTO THE CODE OF ORDINANCES.

It is the intent of the City Council that the provisions of this ordinance shall become and be made a part of the City of Palm Coast Code of Ordinances, and that the sections of this ordinance may be renumbered or relettered and the word "ordinance" may be changed to "section," "article," "regulation," or such other appropriate word or phrase in order to accomplish such intentions.

#### **SECTION 5. SEVERABILITY.**

If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any part thereof, other than the part so declared.

#### **SECTION 6. EFFECTIVE DATE.**

This Ordinance shall become effective	immediately upon its passage and adoption.
Approved on first reading this da	ay of, 2018.
Adopted on the second reading afte 2018.	er due public notice and hearing this day of
	CITY OF PALM COAST, FLORIDA
ATTEST:	MILISSA HOLLAND, MAYOR
VIRGINIA SMITH, CITY CLERK	

# City of Palm Coast, Florida Agenda Item

Agenda Date: 1/17/2018

Department PL Item Key	ANNING	Amount Account #			
Subject ATTACHMENTS TO MEETING MINUTES					
Background :					
Recommended Action :					
For presentation	ourposes only				

## Proposed Ordinance Floodplain Damage Protection

**PLDRB Workshop** 

**January 17, 2018** 



#### <u>Overview</u>

- Palm Coast has participated in the National Flood Insurance Program (NFIP) since 2002.
- A community must participate in NFIP for citizens to buy flood insurance and for the community to eligible for federal disaster assistance.
- The NFIP requires participating communities to adopt and enforce regulations that meet or exceed minimal NFIP standards.
- Communities are encouraged to participate in Community Rating System (CRS) program to reduce risk and flood insurance premiums for citizens.

## Floodplain Management Timeline

Date	Activity	Affect on Flood Insurance Premiums
02-02-2002	Accepted into the NFIP	Citizens can secure flood insurance
05-01-2004	CRS Class 7	15% reduction*
07-17-2006	Flood Insurance Rate Map(s) Effective Date	Flood zone(s) changed
08-19-2008	Unified Land Development Code adopted	
05-01-2009	CRS Class 6	20% reduction*
11-20-2014	CRS Class 5	25% reduction*
04-13-2017	Meeting with FCARD	
05-01-2017	CRS Class 4	30% reduction*
12-31-2017	Florida Building Code Effective Date (6th Edition)	
06-06-2018	Flood Insurance Rate Map(s) Effective Date for new maps	Flood zone(s) will change. Proposed ordinance respects new effective date.

<sup>\*</sup>Note: For policies issued for properties within the Special Flood Hazard Area



#### Ordinance Background

- To remain consistent with the NFIP standards, it is in the public interest to adopt floodplain management regulations that are coordinated within the Florida Building Code.
- The Florida Division of Emergency Management (FDEM) has created a state model ordinance to help communities.
- FDEM provided direct consultation to assist staff with merging the model ordinance, existing regulations of the Unified Land Development Code, Florida Building Code and higher standards of the City's CRS program.

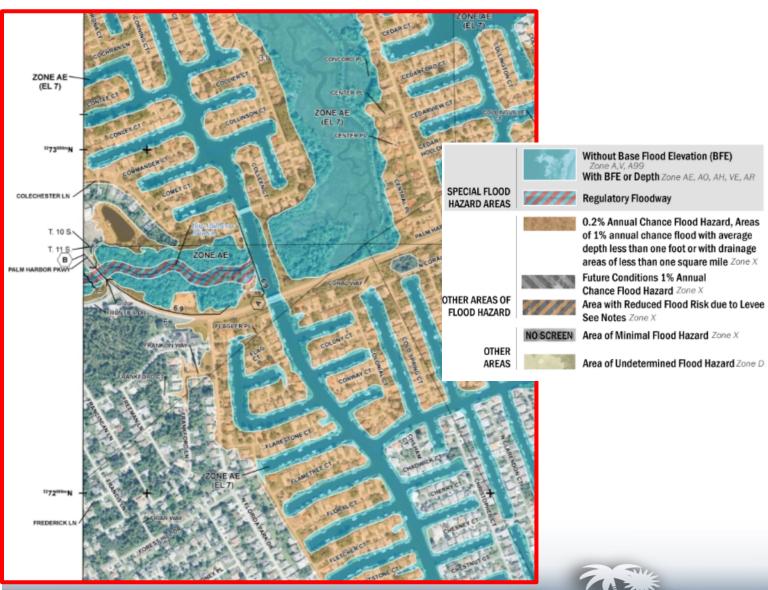
## Flood zones within the City of Palm Coast

- "A" (not studied by FEMA) and "AE" (studied by FEMA) zones are "Special Flood Hazard Areas" (SFHA) that are regulatory flood zones in existing City boundaries.
- "Floodways" are regulated flood zones defined as follows.

  "the channel of a river or other riverine 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."
- "X shaded" are outside SFHA with 0.2% Annual Chance of Flood
- "X" are Areas of Minimal Flood Hazard



Flood Insurance Rate Map Sample (Effective Date June 6, 2018)



Find Your Florida

#### 25-foot Floodway Setback Development Standard

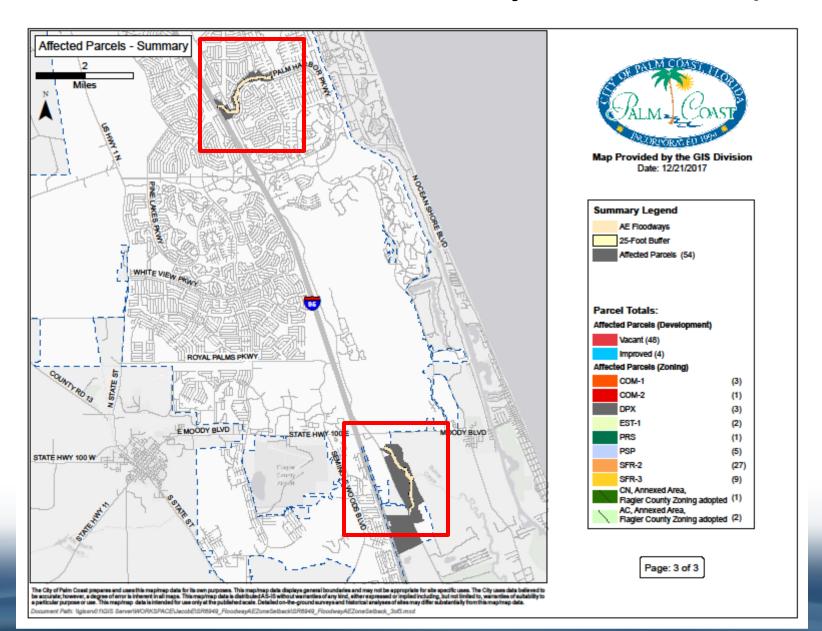
#### Purpose:

 To minimize encroachments to protect floodplain storage and natural function

#### All development: Reference 10.02.07.C

 Encroachment into floodway and/or floodway setback shall require additional analysis that demonstrates that activities will not increase BFE and submit to FEMA for Conditional Letter of Map Revision

## 25-foot Floodway Setback (Natural Systems)



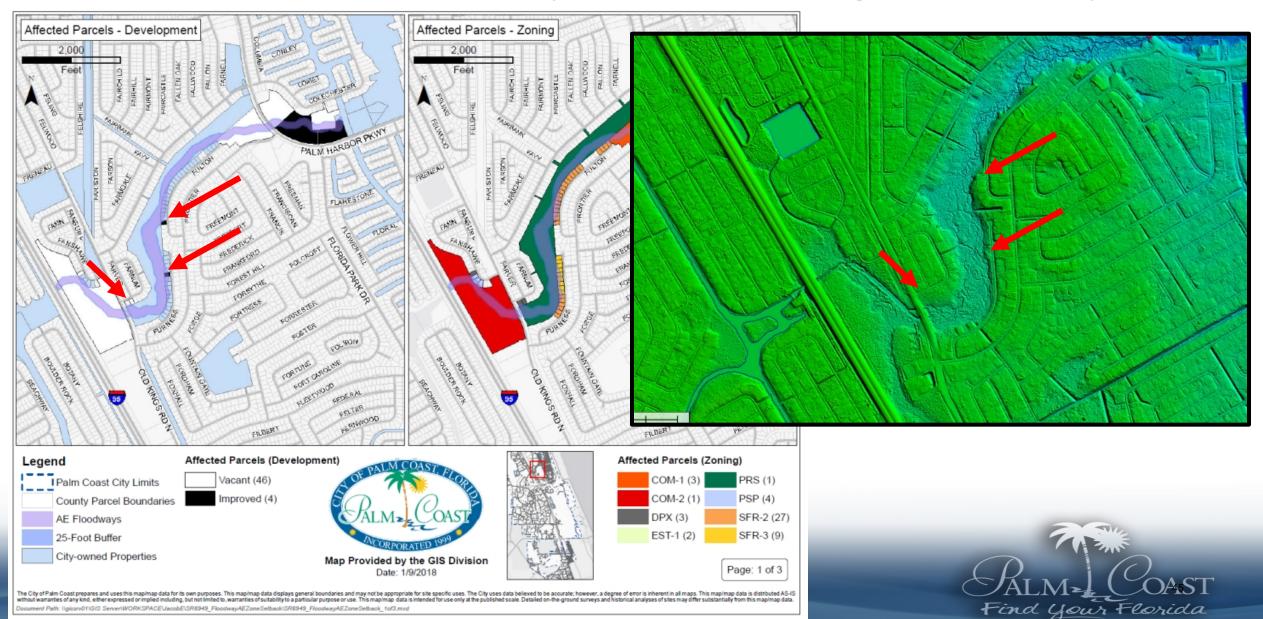
#### Reference:

10.02.07.C; 10.02.13.E

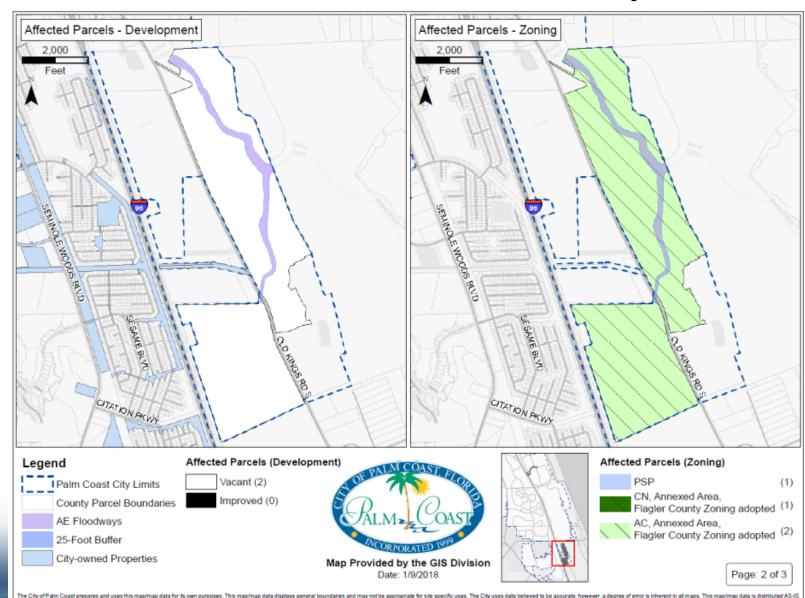
- Floodways are associated with manmade water courses and natural wetland systems.
- 25-foot floodway setback for Big Mulberry Branch and Bulow Creek, dynamic natural systems



## 25-foot Floodway Setback (Big Mulberry)



## 25-foot Floodway Setback (Bulow)



Floodway is within
 Old Kings Road
 South Development
 of Regional Impact
 (DRI)



#### Clarification of Development Standards

#### Site Plans and Construction: Reference 10.02.07

- Establish Base Flood Elevation (BFE) data according to scale of project
- Additional analyses and certifications required based on nature and location of development (floodway, riverine flood hazard area, alteration of watercourse). The applicant shall submit the analysis to FEMA for a Letter of Map Change.

#### Site Improvements, Utilities and Limitations: Reference 10.02.13

 Compensatory storage for any reduction in water-holding capacity of a flood hazard area



#### Clarification of Development Standards

#### Subdivisions (Plats): Reference 10.02.12

- Establish BFE data
- Compliance with 10.02.13
- Technical data reflecting BFE and/or flood hazard boundary changes are submitted to FEMA. Prior to approval of final plat, an issued Letter of Map Change determination from FEMA is required



## Clarification of Development Standards

#### Critical Facilities: Reference 10.02.18

- Definition includes reference to Florida Building Code Design Class based on use
- New critical facilities shall be directed away from Special Flood Hazard Areas (SFHA)
- In the event that a new critical facility is proposed within a SFHA that cannot be avoided, a Letter of Map Change determination to remove the entire project area shall be submitted to Floodplain Administrator



#### Next Steps

- Second meeting with FCARD on January 25, 2018 to review draft
- Staff consolidates comments to discuss with FDEM
- February 21, 2018 PLDRB Business Meeting
- April 2018 City Council Workshop and Business Meeting(s) targeted
- June 6, 2018 Flood Insurance Rate Maps and Flood Insurance Study take effect



# Questions?

