

Ordinance amending the Code of Ordinances, Chapter 14, Article V, Flood Hazard Prevention Adopting Higher Standards; and providing for penalties

WHEREAS, the City can adopt higher floodplain management standards to promote increased public health, safety, and general welfare by minimizing public and private losses due to flood conditions in areas of special flood hazard.

WHEREAS, the City is a participant in a voluntary program of the National Flood Insurance Program called the Community Rating System. This program provides points for going above and beyond the minimum standards of a participating community.

WHEREAS, adopting higher standards provides additional points that can help to reduce flood insurance premiums for flood insurance policies in a Special Flood Hazard Area.

Now therefore, be it ordained by the City Council of the City of Corpus Christi, Texas:

SECTION 1. That Corpus Christi Code of Ordinances, Chapter 14 "Development Services", Article V "Flood Hazard Prevention Code," Section 14-552 "Specific standards" is amended by adding the following language that is underlined (added) and deleting the language that is stricken (~~deleted~~) as delineated below:

In all areas of special flood hazards where base flood elevation data has been provided as set forth in section 14-522, section 14-532(8), or section 14-543(c), the following provisions are required:

- (1) Residential construction. New construction ~~and substantial improvement~~ of any residential structure must have the lowest floor (including basement), elevated to 1 (one) foot at or above the base flood elevation. Substantial Damage and Substantial Improvement must have the lowest floor (including basement), elevated to at or above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that the standard of this subsection as proposed in section 14-533(b)(1), is satisfied.
- (2) Nonresidential construction. New construction ~~and substantial improvements~~ of any commercial, industrial, or other nonresidential structure must either have the lowest floor (including basement) elevated to 1 (one) foot at or above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Substantial Damage and Substantial Improvement must have the lowest floor (including basement), elevated to at or above the base flood elevation or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the

specific elevation (in relation to mean sea level) to which such structures are flood-proofed shall be maintained by the floodplain administrator.

(4) Manufactured homes.

- a. All manufactured homes to be placed within zone A on a city's FHBM or FIRM must be installed using methods and practices which minimize flood damage.
 1. For the purposes of this requirement, a manufactured home must be elevated and anchored to resist flotation, collapse, or lateral movement.
 2. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
 3. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.
- b. Manufactured homes that are placed or substantially improved within zones A1-30, AH, and AE on the city's FIRM must be on sites:
 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 on which a manufactured home has incurred substantial damage as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to 1 (one) foot at or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- c. Manufactured homes must be placed on substantially improved on sites in an existing manufactured home park or subdivision with zones A1-30, AH, and AE on the city's FIRM that are not subject to the provisions of paragraph (4) of this subsection must be elevated so that either:
 1. The lowest floor of the manufactured home is 1 (one) foot at or above the base flood elevation, or
 2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

SECTION 2. That Corpus Christi Code of Ordinances, Chapter 14 "Development Services", Article V "Flood Hazard Prevention Code," Section 14-554 "Standards for areas of shallow flooding (AO/AH zones)" is amended by adding the following language that is underlined (added) and deleting the language that is stricken (~~deleted~~) as delineated below:

Locations within the areas of special flood hazard established in section 14-522 are designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet, where a clearly defined channel does not exist and

where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

- (1) All new construction, ~~and substantial improvements~~ of residential structures must have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least two (2) feet if no depth number is specified) plus 1 (one) foot. Substantial Damage and Substantial Improvement must have the lowest floor (including basement), elevated to at or above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least two (2) feet if no depth number is specified).
- (2) All new construction ~~and substantial improvements~~ of nonresidential structures:
 - a. Must have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least two (2)) feet plus 1 (one) foot, if no depth number is specified; or
 - b. Substantial Damage and Substantial Improvements must have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least two (2)) feet, if no depth number is specified; or
 - cb. Together with attendant utility and sanitary facilities must be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
- (3) A registered professional engineer or architect shall submit a certification to the floodplain administrator that the standards of this section, as proposed in section 14-533(b)(1), are satisfied.
- (4) Structures within zones AH or AO must have adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

SECTION 3. That Corpus Christi Code of Ordinances, Chapter 14 "Development Services", Article V "Flood Hazard Prevention Code," Section 14-556 "Coastal high hazard areas" is amended by adding the following language that is underlined (added) and deleting the language that is stricken (~~deleted~~) as delineated below:

- (b) These areas have special flood hazards associated with high-velocity waters from tidal surges and hurricane wave wash; therefore, in addition to meeting all provisions outlined in this Code, the following provisions also apply:
 - (1) Obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement. The floodplain administrator maintains a record of all this information.
 - (2) All new construction must be located landward of the reach of mean high tide.
 - (3) All new construction and substantial ~~damage improvements~~ must be elevated on pilings and columns so that:
 - a. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to 1 (one) foot ~~at or~~ above the base flood elevation level.

- b. Substantial Improvements must have the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) elevated to at or above the base flood elevation.
 - ~~cb.~~ The pile or column foundation and structure attached to the foundation is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.
 - 1. Water loading values used must be those associated with the base flood.
 - 2. Wind loading values used shall be those required by applicable state or local building standards.
- (4) A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraph (3)(a) and (b) of this subsection.
- (5) All new construction and substantial improvements must have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.
- (6) For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than ten (10), and not more than twenty (20) pounds per square foot.
- (7) Use of breakaway walls, which exceed a design safe loading resistance of twenty (20) pounds per square foot (either by design or when so required by local or state codes), may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:
- a. Breakaway wall collapse must result from a water load less than that which would occur during the base flood; and
 - b. The elevated portion of the building and supporting foundation system may not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural).
 - 1. Water loading values used shall be those associated with the base flood.
 - 2. Wind loading values used shall be those required by applicable state or local building standards.
- (8) Enclosed space below the lowest floor may be useable solely for parking of vehicles, building access, or storage. The enclosed space below the lowest floor may not be used for human habitation.
- a. All enclosed areas below base flood elevation that are greater than 5 (five) feet In height will be required to sign a non-conversion agreement that will be filed with the deed.
- (9) The use of fill or structural support of buildings is prohibited.

- (10) The use of manmade alteration of sand dunes and mangrove stands, which would increase potential flood damage, is prohibited.
- (11) Manufactured homes, which have incurred substantial damage as the result of a flood, must meet the standards of paragraphs (1) through (10) of this subsection, if they are placed or substantially improved within zones V1-30, V, and VE on the city's FIRM on sites:
 - a. Outside of a manufactured home park or subdivision,
 - b. In a new manufactured home park or subdivision,
 - c. In an expansion to an existing manufactured home park or subdivision, or
- (12) Manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within zones V1-30, V, and VE on the city's FIRM meet the requirements of section 14-542(4) of this Code.
- (13) Recreational vehicles, which are placed on sites within zones V1-30, V, and VE on the city's FIRM, must either:
 - a. Be on the site for fewer than one hundred eighty (180) consecutive days,
 - b. Be fully licensed and ready for highway use, or
 - c. Meet the requirements in section 14-522 of this article and paragraphs (1) through (10) of this subsection.
- (14) to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

Section 4. Publication shall be made in the official publication of the City of Corpus Christi as required by City Charter of the City of Corpus Christi.

Section 5. A violation of this ordinance, or requirements implemented under this ordinance, constitutes an offense punishable as provided in Section 14-207 and Section 1-6 of the Corpus Christi Code of Ordinances.

Section 6. Severability. It is hereby declared to be the intention of the City that the sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph, or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such declaration shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Ordinance, since the same would not have been acted by the City without the incorporation into this Ordinance of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Section 7. Effective date. This ordinance takes effect on upon publication.

That the foregoing ordinance was read for the first time and passed to its second reading on this the ____ day of _____, 2019, by the following vote:

Joe McComb _____

Michael Hunter _____

Roland Barrera _____

Ben Molina _____

Rudy Garza _____

Everett Roy _____

Paulette M. Guajardo _____

Greg Smith _____

Gil Hernandez _____

That the foregoing ordinance was read for the second time and passed finally on this the ____ day of _____ 2019, by the following vote:

Joe McComb _____

Michael Hunter _____

Roland Barrera _____

Ben Molina _____

Rudy Garza _____

Everett Roy _____

Paulette M. Guajardo _____

Greg Smith _____

Gil Hernandez _____

PASSED AND APPROVED on this the ____ day of _____, 2019.

ATTEST:

Rebecca Huerta
City Secretary

Joe McComb
Mayor