

Ordinance amending Section 14-556 of Corpus Christi Code to adopt regulations for nonstructural fill on North Beach; and providing for a penalty not to exceed \$500 per violation and publication.

WHEREAS, FEMA's National Flood Insurance Program (NFIP) Technical Bulletin 5 (March 2020) provides guidance on free-of obstruction requirements in Coastal High Hazard Areas, which are designated as Zone V (V, VE, V1-30, and/or VO) on a community's Flood Insurance Rate Map (FIRM), as well as the NFIP requirements for construction in Zone V to minimize flood damage potential that is applicable to construction in Zone V.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CORPUS CHRISTI, TEXAS, THAT:

SECTION 1. The Corpus Christi Code, Section 14-566 is amended by adding the following language that is underlined (added) and deleting the language that is stricken (~~deleted~~) as delineated below:

Sec. 14-556. Coastal high hazard areas.

- (a) Areas that are subject to possible high-energy wave action, and which are identified as areas of special flood hazard established in section 14-522, are areas designated as coastal high hazard areas (zones V1-30, VE, and/or V).
- (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 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 one (1) foot above the base flood elevation.
 - 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.
 - c. 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 subsections (3)a. and (3)b. of this section.
- (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 five (5) 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~~ for 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 subsections (b)(1) through (b)(10) of this section, 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.
- (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 subsection 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 subsections (b)(1) through (b)(10) of this section.
- (14) A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions.
- (15) For properties within the boundaries of the North Beach Development Plan, minor grading and the placement of minor quantities of nonstructural fill are allowed in Zone V only for landscaping, drainage under and around buildings, and support of parking slabs, pool decks, patios, walkways, and similar site elements. Nonstructural fill shall not prevent the free passage of floodwater and waves beneath elevated buildings, divert floodwater or waves such that building damage is exacerbated, or lead to damaging flood and wave conditions on a site or adjacent sites. Nonstructural fill is assumed to wash away and shall not be used in foundation design calculations.
 - a. Nonstructural fill placed on Zone V sites shall be similar to natural soils in the area. In many coastal areas, natural soils are clean sand or sandy soils free of large quantities of clay, silt, and organic material. Nonstructural fill shall not contain large rocks and debris. The developer/owner shall submit test results providing the classification of the existing and proposed soil using the Unified Soil Classification System (American Society for Testing and Materials (ASTM) Standard D2487) to the City's Floodplain Administrator for approval prior to fill being placed on Zone V sites.
 - b. Placement of up to 2 feet of nonstructural fill under or around an elevated building is allowed without engineering analysis or certification, provided basic site drainage principles are not violated and provided there are no other site-specific conditions or characteristics that would render the placement of the fill damaging to nearby buildings. Placement of fill under or around an elevated building that exceeds 2 feet or that does not abide by basic site drainage principles requires an engineering analysis showing no diversion of floodwaters or waves that building damage is exacerbated or lead to damaging flood and wave conditions on the site or adjacent sites. In cases where site development involves removing a layer of soil and fill is added to the site later, the fill thickness should be evaluated relative to the pre-removal soil elevation, not the removed soil elevation.
 - c. Minimum slopes for building sites to facilitate drainage away from buildings shall be shallower than 1 unit vertical to 5 units horizontal (regardless of fill height).

d. Parks, dunes, and dune vegetation will be conserved and remain in their natural state and not elevated. Placement of nonstructural fill in parks, dunes, and dune vegetation is prohibited.

SECTION 2. If for any reason any section, paragraph, subdivision, clause, phrase, word, or provision of this ordinance shall be held invalid or unconstitutional by final judgment of a court of competent jurisdiction, it shall not affect any other section, paragraph, subdivision, clause, phrase, word or provision of this ordinance, for it is the definite intent of this City Council that every section, paragraph, subdivision, clause, phrase, word or provision hereof be given full force and effect for its purpose.

SECTION 3. Publication shall be made in the official publication of the City of Corpus Christi as required by the City Charter of the City of Corpus Christi.

SECTION 4. A violation of this ordinance or requirements implemented under this ordinance constitutes an offense punishable under Section 1 - 6 and Section 14 -557 of the Corpus Christi Code.

SECTION 5. This ordinance takes effect after official publication.

Introduced and voted on the _____ day of _____, 2023.

PASSED and APPROVED on the _____ day of _____, 2023.

ATTEST:

Paulette Guajardo, Mayor

Rebecca Huerta, City Secretary