

FLOODPLAIN MANAGEMENT

REGULATIONS OF GALVESTON COUNTY, TEXAS

FOR

FLOODPLAIN MANAGEMENT



EFFECTIVE AUGUST 15, 2019

THE COUNTY OF GALVESTON
FLOODPLAIN REGULATIONS AS REQUIRED

BY

THE NATIONAL FLOOD INSURANCE ACT TITLE 42
THE COMMISSIONERS' COURT

COUNTY JUDGE
MARK HENRY

COUNTY COMMISSIONERS

DARRELL APFFEL	PRECINCT NO. 1
JOE GIUSTI	PRECINCT NO. 2
STEPHEN HOLMES	PRECINCT NO. 3
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FLOODPLAIN ADMINISTRATION

BY

OFFICE OF THE COUNTY ENGINEER
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EFFECTIVE August 15, 2019

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FLOOD DAMAGE PREVENTION REGULATIONS

ARTICLE 1

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION A. STATUTORY AUTHORIZATION

The Legislature of the State of Texas has in Section 16.311-16.322 of the Texas Water Code and Section 240.901 of the Local Government Code authorizes local governmental units to adopt regulations designed to regulate land use and minimize flood losses. Therefore, the Commissioners Court of Galveston County, Texas, does ordain as follows:

SECTION B. FINDING OF FACT

It is hereby found by the Commissioners' Court of Galveston County that severe flooding has occurred in the past within its jurisdiction and is likely to occur in the future, and that damage to property occurs for many reasons including flooding from the tidal waters of the Gulf of Mexico and that the entire area within its jurisdiction is a rising water prone area.

SECTION C. STATEMENT OF PURPOSE

It is the purpose of these ordinances to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;
- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains dunes, beaches, and wetlands;
- (6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and
- (7) Insure that potential buyers are notified that property is in a flood area.

SECTION D. METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this regulation uses the following methods:

- (1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
- (4) Control filling, grading, dredging and other development which may increase flood damage;
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

ARTICLE 2 DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

ACCESSORY STRUCTURE- means a low cost unfinished, non-partitioned structure covering at most 250 square feet which is located on the same parcel or lot or on a contiguous parcel of lot with the same ownership of a type that is which is customarily subordinate or incidental to the use of a principal structure and not designed for human habitation and used solely for storage or parking. The structure shall be constructed of breakaway or flood resistant materials and have a low potential for causing damage to other structures or improvements in a flood event. Electrical outlets and fixtures and mechanical equipment in or on an accessory structure, if any, must be elevated above the Base Flood Elevation or be flood-proofed. No sanitary sewer fixtures, air conditioning, insulated walls, permanent electrical fixtures are allowed in or on the accessory structure. Battery and solar powered lighting is allowed.

ALLUVIAL FAN FLOODING - means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

APEX - means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

AREA OF SHALLOW FLOODING – means a designated AO, AH, or VO zone on a community's Flood Insurance Rate Map (FIRM), with a one percent chance or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist. Where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD – is the land in the floodplain within a community subject to a one- percent or greater chance of flooding in any given year. The area may be designed as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1-99, VO, V1-30, VE, or V.

BASE FLOOD – means the flood having a one percent chance of being equaled or exceeded in any given year.

BASEMENT – means any area of the building having its floor subgrade (below ground level) on all sides.

BREAKAWAY WALL – means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

BUILDING PERMIT – means the same as a development permit or permit.

COASTAL HIGH HAZARD AREA— 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.

CRITICAL FEATURE – means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

DEVELOPMENT – means any man-made change in improved and unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

DEVELOPMENT PERMIT – means a permit for the construction of a development. Also called a building permit or permit in these regulations.

ELEVATED BUILDING – means a nonbasement building (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case of a building in zones V1-30, VE, or V, to have the bottom of the lowest horizontal structure member of the elevated floor elevated about the ground level by means of piling, columns (posts and piers), or shear walls parallel to the floor of the water and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones V1-30, VE, or V, “elevated building” also includes a building otherwise meeting the definition of “elevated building”, even though the lower area is enclosed by means of breakaway walls if the breakaway walls met the standards of Section 60.3 (e) (5) of the National Flood Insurance Program regulations.

EXISTING CONSTRUCTION – means for the purposes of determining rates, structures for which the “start of construction” commenced before the effective date of the FIRM or before January 1, 1975, for FIRM’s effective before that date. “Existing construction” may also be referred to as “Existing structures”.

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION – means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads), is completed before the effective date of the floodplain management regulations adopted by a community.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION – means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of the streets, and either final site grading or the pouring of concrete pads).

FLOOD OR FLOODING – means a general and temporary condition of partial or complete inundation of normally dry land areas from:

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

FLOOD INSURANCE RATE MAP (FIRM) – means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY – the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation of the base flood as well as the Flood Boundary- Floodway Map.

FLOODPLAIN OR FLOOD-PRONE AREA – means any land area susceptible to being inundated by water from any source (see definition of flooding).

FLOODPLAIN MANAGEMENT – means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS – means zoning ordinances, subdivisions regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinances, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOODPLAIN PROTECTION SYSTEM – means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a “special flood hazard” and, the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees, or dikes. These specialized flood modifying works are those constructed in a conformance with sound engineering standards.

FLOOD PROOFING – means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

FLOODWAY (REGULATORY FLOODWAY) – means that 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 a designated height.

FUNCTIONALLY DEPENDENT USE – means a use, which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and shipbuilding and ship manufacturing facilities.

HIGHEST ADJACENT GRADE – means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE – means any structure that is identified as any of the following:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register
- (b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a state inventory historic places in states with historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

- (d) Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified as either:
- (1) By an approved state program as determined by the Secretary of the Interior; or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

LEVEE – means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

LEVEE SYSTEM – means a flood protection system, which consists of levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

LOWEST FLOOR – means the lowest floor of the lowest enclosed area (including basement). A unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building’s lowest floor; **provided** that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood Insurance Program regulations.

MANUFACTURED HOMES – means a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term “manufactured home” does not include a “recreational vehicle”.

MANUFACTURED HOME PARK OR SUBDIVISION – means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MEAN SEA LEVEL – means for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community’s Flood Insurance Rate Map are referenced.

NEW CONSTRUCTION – means for the purpose of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

NEW MANUFACTURED HOME PARK OR SUBDIVISION – means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads), is completed on or after the effective date of floodplain management regulations adopted by a community.

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

RECREATIONAL VEHICLE – means a vehicle which is (I) built on a single chassis; (II) 400 square feet or less when measured at the largest horizontal projections; (III) designed to be self-propelled or permanently towable by a light duty truck; and (IV) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

SAND DUNES – means naturally occurring accumulations of sand in ridges or mounds landward of the beach.

START OF CONSTRUCTION – (for other than new construction or substantial improvements under the Coastal Barrier Resources Act, (Pub. L. 97-348), includes substantial improvement and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling. It does not include the installation of streets and/or walkways. It does not include excavation for basement, footing, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE – means a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as manufactured home.

SUBSTANTIAL DAMAGE – means 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.

SUBSTANTIAL IMPROVEMENTS – means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before “start of construction” of the improvement. This includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either: (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary conditions or (2) Any alteration of a, “historic structure”, provided that the alteration will not preclude the structure’s continued designation as a, “historic structure”.

VARIANCE – is a grant of relief to a person from the requirement of this ordinance when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this ordinance. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations).

VIOLATION – means the failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3 (b) (5), (c) (4), (c)(10), (d) (3), (e) (2), (e) (4), or (e) (5) is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION – means the height, in relation to the National Geodetic Vertical Datum, (NGVD), of 1929, (other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

**ARTICLE 3
GENERAL PROVISIONS**

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas within the jurisdiction of unincorporated areas of Galveston County, Texas.

SECTION B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, “The Flood Insurance Study for Galveston County and Incorporated Areas”, Revised Preliminary February 28, 2018 and, with accompanying Flood Insurance Rate Maps, Effective Date of August 15, 2019, (FIRM), any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance.

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT

A Development Permit shall be required to ensure conformance with the provisions of this ordinance.

SECTION D. COMPLIANCE

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

SECTION E. ABROGATION AND GREATER RESTRICTIONS

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SECTION F. INTERPRETATION

In the interpretation and application of this ordinance, 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.

SECTION G. WARNING AND DISCLAIMER OR LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the

part of the community or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

ARTICLE 4 ADMINISTRATION

SECTION A. SCOPE

Provisions of this regulation shall apply to, all new construction or development, proposed subdivisions and to the construction, alteration, repair, use, location, or maintenance of every building or structure or any appurtenances connected to or attached to such buildings or structures, within the designated area affected by this regulation.

SECTION B. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The Building Official is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

SECTION C. DUTIES & REPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

- (1) Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance.
- (2) Review permit application to determine whether proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding.
- (3) Review, approve or deny all applications for development permits required by adoption of this ordinance.
- (4) Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State, or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.
- (5) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards, (i.e. where there appears to be conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the necessary interpretation. Survey may be required.
- (6) Notify, in riverine situations, adjacent communities and the State Coordination Agency, which is the Texas Water Commission, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
- (8) When base flood elevation data has not been provided in accordance with Article 3, Section B, the Floodplain Administrator shall obtain, review and reasonable utilize any base flood elevation data and floodway data available from a Federal, State, or other source, in order to administer the provisions of Article 5.
- (9) When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be

permitted within Zones A1-30 and AE on the community's FIRM. Unless it is demonstrated that the cumulative effect or the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

- (10) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, On the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community **first** applies for a conditional FIRM revision through FEMA.

SECTION D. EXISTING BUILDINGS

- (1) If alterations or repairs costing fifty percent (50%) or more of the current market value of the building are made to an existing building, such building shall be made to conform to the requirements of this regulation for new buildings.
- (2) If an existing building is damaged by fire or otherwise fifty percent (50%) or more than market value before such damage is repaired, it shall be made to conform to the requirements of this regulation for new buildings.
- (3) For the purpose of this section market value of the building shall be determined by the Building Official.

SECTION E. ORGANIZATION

- (1) Building Official
 - (a) There is hereby established a department to be called the Building Department of Galveston County. An official hereinafter-named Building Official shall be the Chief Officer of this Department.
 - (b) The Commissioners' Court of Galveston County, Texas shall appoint the Building Official, and his appointment shall continue during good behavior and satisfactory service.
- (2) Inspectors - The Building Official, with the approval of the Commissioners' Court of Galveston County, Texas, may appoint such number of officers, inspectors, assistants, and other employees as shall be authorized from time to time.
- (3) The Building Official may designate as his deputy an employee in the Department who shall during the absence or disability of the Building Official exercise all of the powers of the Building Official.
- (4) The Building Official shall keep, or cause to be kept, a record of the business of the Department. The records of the department shall be open to public inspection.

SECTION F. POWERS AND DUTIES OF BUILDING OFFICIAL

- (1) Right of Entry- The Building Official shall enforce the provisions of this regulation, and he, or his duly authorized representative, may enter any building, structure, or premises to perform any duty imposed upon him by this regulation.
- (2) Stop Work Orders- Upon notice from the Building Official that work on any building, structure, dike, bridge, or any improvement which would affect water drainage, if being done contrary to the provisions of this regulation or in dangerous or unsafe manner, such work shall be immediately stopped. Such notice shall be in writing and shall be given to the owner of the property, his agent, or to the person doing the work. Where an emergency exists; no written notice shall be required to be given by the Building Official.
- (3) The Building Official or his authorized agent shall review each permit application to determine whether the proposed building site will be reasonable safe from flooding.

- (4) The Building Official may revoke a permit or approval issued under the provisions of this regulation, in case there has been any false statement or misrepresentation as to a material fact in the application or plans upon which the permit or approval was based.
- (5) Requirements not covered by regulations- Any requirement necessary for the strength or stability of an existing proposed building or structure, or for the safety or health of the occupant thereof, not specifically covered by this regulation, shall be determined by the Building Official subject to appeal to the Board of Adjustments and Appeals.
- (6) Liability- Any suit brought against an officer or employee of Galveston County because of some act performed by him in the enforcement of any provision of this regulation shall be defended by Galveston County, Texas, until the final termination of the proceedings.
- (7) Reports- the Building Official shall annually submit a report to the Commissioners' Court of Galveston County, Texas, covering the work of the department during the preceding year. He shall incorporate in said report a summary of the Decisions of the Board of Adjustment and Appeals during said year.
- (8) The Building Official shall notify adjacent communities and the Texas Water Commission prior to any alteration or relocation of watercourse and shall also submit evidence of such notification to the Federal Emergency Management Agency (FEMA).
- (9) The Building Official shall assure that a maintenance easement and commitment is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

SECTION G. DEVELOPMENT PERMIT PROCEDURES

- (1) In addition to individual development or building permits an Application for a development permit shall be presented to the Galveston County Building Official for proposed developments greater than 5 lots or 50 acres whichever is lesser and shall include, but not limited to plans in duplicate drawn to scale showing the locations, dimensions, and elevations and proposed structures, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:
 - (a) Elevation in relation to mean sea level, of the lowest floor of all proposed new and substantially improved structures.
 - (b) Elevation in relation to mean sea level to which any non-residential structure shall be flood proofed;
 - (c) A certificate from a registered professional engineer or architect that the non-residential flood proofed structure shall meet the flood proofing criteria of Article 5, Section B (3);
 - (d) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development;
 - (e) Maintain a record of all such information in accordance with Article 5, Section B (1).
- (2) Approval or denial of a Development Permit by the Galveston County Building Official shall be based on all of the provisions of this regulation and the following relevant factors:
 - (a) The danger to life and property due to flooding or erosion damage;
 - (b) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (c) The danger that materials may be swept onto other lands to the injury of others;
 - (d) The compatibility of the proposed use with the existing and anticipated development;
 - (e) The safety of access to the property in times of flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical, and water systems;

- (f) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at site;
- (g) The necessity to the facility of a waterfront location, where applicable;
- (h) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (i) The relationship of the proposed use to comprehensive plan for that area;

SECTION H. APPLICATION FOR DEVELOPMENT PERMIT

(1) When required:

- (a) When anyone desires to construct a development as defined herein a development permit is required.
- (b) Ordinary and minor repairs may be made with the approval of the Building Official without a permit provided that such repairs shall not violate any of the provisions of this regulation.
- (c) Where construction is commenced before a permit is obtained, the permit fee shall be doubled.

(2) Form

- (a) Each application for a permit with the required fee shall be filed with the Building Official, on a form furnished by him, and shall contain a general description of the proposed work in its location. The owner or his authorized agent shall sign the application.
- (b) Each application for a permit shall indicate the proposed occupancy of all parts of the building or structure and shall contain specific information as may be required by the Building Official.

(3) Drawing and Specifications

- (a) Two or more copies of specifications, and of drawings drawn to scale with sufficient clarity and detail to indicate the nature and character of the work, shall accompany every application. Such drawings and specifications shall contain information in the form of notes or otherwise, as to the quality of materials, where quality is essential to conformity with this regulation. Such information shall be specific and this code shall not be cited as a whole or in part, nor shall the term "legal" or its equivalent be used, as a substitute for specific information.
- (b) The Building Official may require details, computations, stress diagrams, and such other data necessary to describe the construction and basis of calculation and they shall bear the signature of the person responsible for the design.
- (c) All drawings, specifications, and accompanying data shall bear the name and address of the designer.

(4) Limitation

An application for a permit for any proposed work shall be deemed to have been abandoned six (6) months after the date of filing, unless before then a permit shall have been issued; provided that, for cause, one or more extensions of time, for periods of not exceeding (90) days, each shall be allowed by the Building Official.

(5) Examination of Drawings

- (a) The Building Official shall examine or cause to be examined each application for permit and the drawings and computations filed therewith and shall ascertain during such examination whether the construction indicated and described is in accordance with the requirements of this regulation and all other pertinent laws or regulations.
- (b) Permits issued upon architects or engineers affidavits- The Building Official may accept a sworn affidavit from a registered architect or engineer stating that the plans submitted conform to the laws as to type of construction, general arrangement, and if accompanied by drawings

showing the structural design conform to the requirements of this regulation as to strength, stresses, strains, loads, stability and elevation, he may without examination or inspection accept such affidavit, provided the architect or engineer who made such affidavit agrees to submit to the Building Official upon the completion of the structure a certification that the structure has been erected in accordance with the Official relies upon such affidavit, the architect or engineer shall assume full responsibility for the compliance with all the provisions of this regulation and/or other pertinent laws or regulations.

SECTION I. PERMIT PROCEDURES

(1) Actions or Application

- (a) No person, firm or corporation shall erect, construct, enlarge, alter, repair, or improve any building or development structure or manufactured mobile home in the applicable jurisdiction, or cause such to be done without first obtaining a separate building permit for such buildings or structures from the Building Official.
 - (b) If the Building Official is satisfied that the work described in an application for permit and the drawings filed therewith conform to the requirements of this regulation and other pertinent laws and regulations, he shall issue a permit therefor to the applicant.
 - (c) If the application for a permit and the drawings filed therewith describe work which does not conform to the requirements of this regulation and other pertinent laws or regulations, The Building Official shall not issue a permit, but shall return the drawings to the applicant with his refusal to issue such permit. Such refusal to issue such permit shall, when requested, be in writing and shall contain the reasons therefor.
 - (d) No permit shall be issued unless and until all necessary permits, if any, have been obtained from those Federal, State or Local governmental agencies from which prior approval is required.
 - (e) No permit shall be issued unless and until certification is received from a registered professional engineer or architect that the proposed structure shall meet all flood proofing criteria called for herein.
 - (f) Application for a permit for any development as defined in Article 2 of this regulation must be made within all unincorporated areas of Galveston County.
- (2) Conditions of Permit- the Building Official shall act upon an application for a building permit with plans as filed, or amended, without unreasonable or unnecessary delay. A permit issued shall be construed to be a license to proceed with the work and shall not be construed as authority to violate, cancel, alter or set aside any of the provisions of this regulation, nor shall such issuance of the permit prevent the Building Official from thereafter requiring a correction of errors in plans or in issued shall become invalid unless the work authorized by it shall have been commenced; provided that, for cause, one or more extensions of time, for periods not exceeding one hundred eighty (180) days each, may be allowed by the Building Official
- (3) Upon issuance of a Development Permit, the recipient shall be required to sign the permit, indicating that the recipient accepts the permit with any specified conditions and that he will construct the development in strict conformance with the approved plans and conditions attached.
- (4) Permits issued upon affidavits- Whenever a permit is to be issued in reliance upon an affidavit as provided in Section E (5) (b) above, or whenever the work to be covered by a permit involves construction under conditions, which in the opinion of the Building Official, are hazardous or complex, the Building Official require that the architect or engineer who signed the affidavit or made the drawings and computations shall supervise the work, being responsible for its conformity with the approved drawings, and forthwith written affidavit that the work has been done in conformity with the approved plans and the structural provisions of the regulation. In the event such architect or engineer is not available, the owner shall employ in his stead competent person or agency whose qualifications are approved by the Building Official.

SECTION J. FEES

- (1) General- No permit shall be issued until the fees prescribed in this section have been paid, nor shall amendment to a permit be approved until the additional fee if any due to an increase in the estimated cost of the building or structure, shall have been paid.
- (2) Failure to Obtain a Permit- If any person commences any work on a building or structure before obtaining the necessary permit from the applicable governing body; he shall be subject to the penalty prescribed herein.
- (3) Accurate Records- The Building Official shall keep a permanent and accurate accounting of all permit fees and other monies collected, the name of all persons whose account the same was paid, The date, and amount therefor.
- (4) Schedule of Permit Fees- On all buildings, developments, structures, or alterations requiring a permit, as set forth in these regulations, above, fees shall be paid at the time of filing application, in accordance with the following schedule:
 - (a) General application fee is \$10.00. If application must be submitted to the Texas General Land Office and the Attorney General's office the application fee will be \$25.00.
 - (b) For a valuation of improvements up to and including \$10,000.00 the fee shall be \$3.00 per thousand or a major fraction thereof. The minimum fee for a permit will be \$30.00.
 - (c) For a valuation of improvements over \$10,000.00 up to and including \$100,000.00 the fee shall be \$30.00 for the first \$10,000.00 plus \$2.00 for each additional thousand or a fraction thereof.
 - (d) For valuation over \$100,000.00 the fee shall be \$215.00 for the first \$100,000.00 plus \$0.50 for each additional thousand or a fraction thereof.
 - (e) In the event no application for permit was filed, or where work was begun without a permit, the permit fee shall be doubled.
- (5) Permit Valuations- \$30.00 per sq. ft. for residential living areas, commercial structures, and manufactured homes. \$12.50 per sq. ft. for storage areas, barns, garages, decks, and boat houses.
- (6) Permit/Review Fees for Subdivisions and Mobil Home/RV Parks:
 - (a) 1-10 lots \$250/ea.
 - (b) 10-20 lots \$500/ea.
 - (c) Greater than 20 lots \$500/ea. + \$25/lot over 20
 - (d) Commercial \$750/ea.
 - (e) Replat \$500/ea.
 - (f) Metes and Bounds \$250/ea.
- (7) A re-inspection fee of \$35.00 will be charged for any re-inspections.
- (8) A certification of non-compliance fee is \$100.00

SECTION K. INSPECTIONS

(1) General

- (a) Before issuing a permit the Building Official may examine or cause to be examined any building for which an application has been received for permit to enlarge, alter, or repair. He shall inspect all building and structures from time to time, during and upon completion of the work for which a permit was issued. He shall make a record of every such examination and inspection of all violations of this regulation.

- (b) When deemed necessary by him, he shall make an inspection of the material or assemblies at the point of manufacture or fabrication. He shall make a record of every such examination and inspection and of all violations of this regulation.
- (c) The Building Official may make, or cause to be made the inspections called for by these improvements. He may accept reports of inspectors of recognized inspection services provided that after investigation, he is satisfied as to their qualifications and reliability. Certificate called for by any provisions of these requirements shall be based on such reports unless the same are in writing and certified by a responsible officer of such services.

(2) Inspections Required

- (a) The Building Official shall inspect or cause to be inspected at various intervals all construction or work for which a permit is required.
- (b) The Building Official upon notification from the permit holder or his agent shall make the following inspections of buildings and such other inspections as may be necessary, and shall either approve that portion of the construction as completed or shall notify the permit holder or his agent wherein the same failed to comply with this regulation.
 - i. Foundation Inspection: To be made after the trenches are excavated and forms are erected, or after all piling or poles are in place.
 - ii. Framing Inspection
 - iii. Final Inspections: To be made after the structure is dried in.
- (c) No work shall be done on any part of the building or structure beyond the point indicated in each successive inspection without first obtaining the written approval of the Building Official. Such written approval shall be given only after an inspection shall have been made of each successive stop in the construction as indicated above.
- (d) No reinforcing steel or structural framework of any part of any building shall be covered or concealed in any manner whatsoever without first obtaining the approval of the Building Official, or the designing architect or engineer.

SECTION L. BOARD OF ADJUSTMENTS AND APPEALS

- (1) Appointments: There is hereby established a Board to be called the Board of Adjustments and Appeals, which shall consist of the Commissioners' Court of Galveston, Texas.

SECTION M. VARIANCE PROCEDURES

- (1) The appeal board as established shall hear and render judgement on request for variances from the requirements of these regulations.
- (2) The appeal board shall hear and render judgement on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.
- (3) Any person or persons aggrieved by the decision of the Appeal Board may appeal such a decision to the courts of competent jurisdiction.
- (4) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.
- (5) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this ordinance.
- (6) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures

constructed below the base flood level, providing the relevant factors in Section C (2) of this article have been fully considered. As the lot

- a. size increases beyond the one-half acre, the technical justification required for issuing the variance increase.

- (7) Upon consideration of the factors noted about and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Article 1, Section C).
- (8) Variances shall not be issued within any designated floodway.
- (9) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not precludes continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (10) Prerequisites for granting variances:
 - (a) Variances shall only be issued upon determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - (b) Variance shall only be issued upon, (i) showing a good and sufficient cause; (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - (c) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- (11) A community for new construction and substantial improvements may issue variances and for other development necessary for the conduct of a functionally dependent use provided that (I) the criteria outlined in Article 4, Section M (1) – (10) are met, and (II) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

SECTION N. VIOLATIONS AND PENALTIES

Any person, firm, corporation or agent who fails to comply the requirements of the regulations, or who shall erect, construct, or alter, any structure in violation of the detailed statement or drawing submitted and approved thereunder, or any utility company or utility district furnishing services which shall make a permanent connection to a nonconforming structure without approval of the Building Official, is considered to be in violation of these regulations.

Once the Building Official has determined that a violation has occurred, he is authorized to file a certificate in the real property records of Galveston County that identifies any condition of the property that the County has determined violates these rules or a permit issued under these rules. The notice is not a final legal determination and is meant only to provide notice of the County's determination that a violation of the results or permit exists on the property. Issuance of such certification of non-compliance is subject to the fee identified in Article 4, Section J. The Building Official is also authorized to file certifications of non-compliance with the Federal Emergency Management Agency.

In addition to filing the above notices, the Building Official is authorized to take any legal steps necessary to obtain compliance, including but not limited to filing a petition in District or County

Court to compel compliance with these regulations and seeking civil penalties of \$100.00 per day for each violation as authorized under Section 16.322 of the Texas Water Code.

SECTION O. INCORPORATION OF PREVIOUSLY UNINCORPORATED AREAS

The Building Official shall, upon occurrence, notify the Federal Emergency Management Agency (FEMA) in writing wherever a community incorporates within the County or if an area of county is no longer under the jurisdiction of the County by virtue or annexation by incorporated cities or by special agreements such as with industrial or navigation districts.

SECTION P. VALIDITY

If any section, sub-section, sentence, clause, or phrase of this regulation is for any reason to be held to be unconstitutional, such a decision shall not affect the validity of the remaining portions of this regulation.

**ARTICLE 5
PROVISIONS FOR FLOOD HAZARD REDUCTION**

SECTION A. GENERAL STANDARDS

In all AREAS OF UNINCORPORATED GALVESTON COUNTY, the following provisions are required for all new construction and substantial improvements.

- (1) No alteration, diversion, encroachment, or enlargement shall be made in any bayou, lake, creek, or waterway without specific written authorization from the County Flood Plain Administrator and the County Engineer.
- (2) All new construction or substantial improvements of non-residential and residential structures within Galveston County's unincorporated areas must have the lowest floor elevated to or above the level of 100-year flood, or 18 inches above natural ground level which is higher, or when the drainage downstream from the proposed structure is intercepted by a road the first floor elevation shall be a minimum of 18 inches about the surface of the road. Exceptions may be granted by the Board of Adjustments and Appeals if the requirement would itself create a flood hazard to the adjoining property by diverting the natural flow or run-off of flood waters into adjoining property so as to exaggerate the hazard of flooding to such property, and further where the Building Official determines that the elevation requirements of this regulation would be deleterious to the overall water diversion and run-off plan of this surrounding area and no compensating floodway improvement is practical or possible;
- (3) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- (4) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (5) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
- (6) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities

above the B.F.E. or designed and constructed so as to prevent water from entering or accumulating within the components during conditions of flooding;

- (7) All new replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (8) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood water in the system and discharge from the systems into flood waters, and,
- (9) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- (10) Approved Galveston County Health District water wells/septic systems permits are prerequisite for a Galveston County Building Permit.

SECTION B. SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Article 3, Section B, the following provisions are required:

- (1) No basement shall be permitted in any residential structure in any special flood hazard area.
- (2) Residential Construction- new construction and substantial improvement of any residential structure shall have the lowest floor elevated to or above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification of elevation to the Galveston County Building Department.
- (3) Nonresidential Construction- excluding Accessory Structures, new construction and substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor elevated to or about 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 effect 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 structures are flood proofed shall be maintained by the Floodplain Administrator.
- (4) Enclosures- new construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - (a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - (b) The bottom of all openings shall be no higher than one foot above grade.
 - (c) Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry exit of flood
- (5) Any enclosure below the base flood elevation shall be used solely for the parking of vehicles, storage and building access.
- (6) Manufactured Homes
 - (a) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices, which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods an anchoring may-include, but are

not limited to, use of over the top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

- (b) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM 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, or (4) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or about the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and later movement.
 - (c) Require that manufactured homes to be placed or substantially improved on sited in an existing manufactured home park or subdivision with Zones A1-30, AH, AE on the community's FIRM that are subject to the provisions of this section be elevated so that the lowest floor of the manufactured home is at or about the base flood elevation.
- (7) Recreational Vehicles- Require that recreational vehicles placed on sites within Zones A1-30, AH, and AW on the community's FIRM (1) be on the site for fewer than 180 consecutive days, (2) be fully licensed and ready for highway use with no special or additional permits needed for transport over public highways, or (3) meet the requirements for Article 4, Section B (5), and elevation anchoring requirements for "manufactured homes" in paragraph (4) of this section. A recreational vehicle is ready for highway use if it is on its wheel or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.
- (a) A new permit must be obtained for an additional 180 days by complying with the following regulations:
 - i. Completely remove the vehicle or trailer from the lot prior to the expiration date of the existing valid permit.
 - ii. Apply for a new permit
 - iii. Call for an inspection of the empty lot.
 - iv. Call for another inspection after the vehicle is replaced in the lot.
- (8) Exempt Recreational Vehicles- means recreational vehicle stored on a homeowners lot where the house already exist are exempt from the 180 day permit regulations. These vehicles must be unoccupied and not hooked up to water or sewer facilities, also they must be licensed and road ready.
- (9) Accessory Structures- new construction and substantial improvements of any Accessory Structure shall either have the lowest floor elevated to or above the base flood level or together with attendant utility facilities, be designed so that below the base flood level the structure is constructed with breakaway or flood resistant materials and have a low potential to cause damage to other structures or improvements in a flood event. The structure must be an unfinished, non-partitioned structure covering at most 250 square feet which is located on the same parcel or lot or on a contiguous parcel or lot with the same ownership of a type that is customarily subordinate or incidental to the use of a principal structure and not designed for human habitation and used solely for storage or parking. No sanitary sewer fixtures, air conditioning, insulated walls, or permanent electrical fixtures are allowed in or on the accessory structure below the base flood elevation. Battery and solar powered lighting are allowed.

A pre-fabricated accessory structure shall be built of lightweight materials, in such a manner that the entire structure is intended to break apart and collapse if impacted by a wave action during a flood event. Pre-fabricated structure means a storage building that is mass produced and sold at retail.

A custom built accessory structure shall be designed and built with breakaway walls, , and 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 structures are flood proofed shall be maintained by the Floodplain Administrator.

Accessory structures must be anchored to the ground or underlying foundation to resist wind loads and to resist flotation that may occur even under relatively shallow flood depths. Straps placed across the top of an accessory structure and connected to ground anchors are one method of satisfying this requirement.

A permit from Galveston County is required for both pre-fabricated and custom built accessory structures. Only one accessory structure per parcel may be permitted.

- (10) Carports, boat sheds and pole barns built on sites within Flood Zone A may be constructed. These structures must comply with the following:
- (a) Use is for parking and storage only
 - (b) No mechanical, electrical or plumbing is allowed below the Base Flood Elevation
 - (c) All enclosures must have appropriate flood venting as described in Article 5, Section B (4) above.
 - (d) Structure must be anchored to resist flotation and lateral movement during conditions of flooding.

SECTION C. STANDARDS FOR SUBDIVISIONS PROPOSALS

- (1) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Article 1, Section B, C, and D of this ordinance.
- (2) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Development Permit requirements of Article 3, Section C; Article 4, Section C; Article 4, Section G; and the provisions of Article 5 of this ordinance.
- (3) Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivision which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Article 3, Section B or Article 4, Section C (8) of this ordinance.
- (4) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
- (5) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

SECTION D. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as shallow flooding. These areas have special flood hazards associated with the base flood depths of 1 to 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 flooding provisions apply:

- (1) All new construction and substantial improvements of residential structures have the lowest floor elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
- (2) All new constructions and substantial improvements of non-residential structures;
 - i. Have the lowest floor elevated about the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number specified).
 - ii. Together with the 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 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 are satisfied.
- (4) Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

SECTION E. FLOODWAYS

Floodways - located within areas of special flood hazard established in Article 3, Section B - are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

- (1) Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- (2) If Article 5, Section E (1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.
- (3) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.

SECTION F. COASTAL HIGH HAZARD AREAS

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as Coastal High Hazard Areas (Zones V1-30, VE, and/or V). 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 these regulations, the following provisions must also apply:

- (1)
 - (a) 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 shall maintain a record of all such information
 - (b) All new construction shall be located landward of the reach of mean high tide.

- (c) With the exception of Accessory Structures, all new construction and substantial improvements shall be elevated on pilings and columns so that:
 - i. The bottom of the lowest horizontal structural member of the lowest floor (excluding the piling or columns) is elevated to or about the base flood level;
 - ii. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values use shall be that associated with the base flood. Wind loading values use shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for construction, and shall certify that the design and methods of construction to be used is in accordance with accepted standards or practice for meeting the provisions of (c) (i) and (ii) of this Section.
 - iii. Accessory structures may be located below the base flood elevation in accordance with **SECTION B (9) Accessory Structures**

(2) Provide that all new construction and substantial improvements 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.

(3) All new construction shall be located landward of the reach of mean high tide and also conform to the following:

- i. All construction shall be landward from the landward side of the backdune.
- ii. All construction shall be least fifty feet landward from the vegetation line.
- iii. Before any building can be constructed on a lot contiguous to the backdune, that lot must be surveyed and certified by a licensed surveyor and show the property lines, easements, beach, water's edge, seaward foredune line, the foredune ridge, vegetation line, the landward backdune line, and a street address and location map. Elevations shall be included for all dune information.

(4) For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot.

- i. The elevated portion of the building and supporting foundation system shall 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 or nonstructural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state or local building standards. Such enclosed space shall be used solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

A registered professional engineer shall certify (before the final inspection is made) that the walls comply with this Section. F

(5) Prohibit the use of fill for structural support of buildings.

(6) Prohibit man-made alteration of sand dunes and mangrove stands which increase potential flood damage.

(7) Manufactured Homes - Require that manufactured homes placed or substantially improved within Zone V1-30, V, and VE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of paragraphs (1) through (6) of this section and that 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 community's FIRM meet the requirements of Article 5, Section B (4) of this ordinance.

(8) Recreational Vehicles - Require that recreational vehicles placed on sites within Zones V1-30, V, and VE on the community's FIRM (i) be on the site for fewer than 180 consecutive days, (ii) be fully licensed and ready for highway use with no special or additional permits needed for transport over public highways, or (iii) meet the requirements in Article 3, Section C of this ordinance and paragraphs (1) through (6) of this section. 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.

A new permit must be obtained for an additional 180 days by complying with the following regulations:

- (a) Completely remove the vehicle or trailer from the lot prior to the expiration date of the existing valid permit.
- (b) Apply for a new permit.
- (c) Call for an inspection of the empty lot.
- (d) Call for another inspection after the vehicle is replaced on the lot.
- (e) If the above conditions are not complied with, the original permit will expire and the vehicle or trailer will have to be removed and will not be permitted again.

(9) EXEMPT RECREATIONAL VEHICLES - means recreational vehicles stored on a homeowner's lot where the home already exists are exempt from the 180-day permit regulations. These vehicles must be unoccupied and not hooked up to water or sewer facilities, also they must be licensed and road ready.

(10) Carports, Boatsheds, Pole Barns and accessory structures built on sites within Zones V1-30, V and VE on the community's FIRM may be constructed. The structures and their contents are classified as uninsurable (FEMA flood insurance) and must comply with the following:

- (a) To be used only for the private storage of the owner's automobiles, boats and lawn/yard maintenance equipment.
- (b) No plumbing, fixtures, drains or air conditioning units.
- (c) All enclosures to be constructed with breakaway walls.

ARTICLE 6 UTILITY CONNECTIONS

SECTION A. UTILITY CONNECTIONS

Any structure or other development may not be connected with water, sewer, and electricity or gas utility service if it is not in compliance with the county's building regulations.

