Order effective date March 10, 2015

The foregoing Resolution and Order was lawfully moved by Commissioner Gary Nelson, duly seconded by Commissioner Mark Huddleston and duly adopted by the Commissioners Court of Chambers County, Texas.

Jimmy Sylvia, Chambers County Judge

March 10, 2015
Date

60.3(d) & (e)

GUIDELINES FOR FLOODPLAIN MANAGEMENT REGULATIONS

ARTICLE 1

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION A. STATUTORY AUTHORIZATION

The legislature of the State of Texas has in the Flood Control Insurance Act, Texas Water Code, Section 16.315 delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the County of Chambers, Texas does ordain as follows:

SECTION B. FINDINGS OF FACT

1) The flood hazard areas of Chambers are subject to periodic inundation, which results in loss of life and property, heath and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.
2) The flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, flood proofed, or otherwise protected from flood damage.

SECTION C. STATEMENT OF PURPOSE

It is the purpose of this ordinance 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 floodplain;
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 ordinance 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 floodwaters;
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, *see Appurtenant Structure*

ALLUVIAL FAN FLOODING – 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 or erosion, sediment transport, and deposition; and unpredictable flow paths.

APEX – 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.

APPURTENANT STRUCTURE – a structure, which is on the same parcel of property as the principal structure to be insured, and the use of which is incidental to the use of the principal structure that is no larger than 250 square feet, examples are garages, sheds, and agricultural structures.

ARE OF SPECIAL FLOOD HAZARD – the land area that would be inundated by the 1-percent annual chance (100 year) flood based on future conditions hydrology.

AREA OF SHALLOW FLOODING – a designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 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 – the land in the floodplain within a community, subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate making has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE or V.

BASE FLOOD – the flood having a 1 percent chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE) – the elevation show on the Flood Insurance Rate Map (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, or VE that indicates the water surface elevation resulting from the flood that has a 1 percent chance equaling or exceeding that level in any given year – also called the Base Flood.

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

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

CRITICAL FEATURE – 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 – any manufactured change to 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.

ELEVATED BUILDING – for insurance purposes, a non-basement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

EXISTING CONSTRUCTION –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 FIRMS effective before that date. "Existing construction" may also be referred to as "existing structures".

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION – a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is

completed before the effective date of the floodplain management regulations adopted by a community.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION – 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 streets, and either final site grading or the pouring of concrete pads).

FLOOD OR FLOODING – a general or 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 ELEVATION STUDY – an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

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

FLOOD INSURANCE STUDY (FIS) – see *Flood Elevation Study*

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

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

FLOODPLAIN MANAGEMENT REGULATIONS – zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as 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.

FLOOD PROTECTION SYSTEM – 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 area 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 conformance with sound engineering standards.

FLOOD PROOFING – any combination of structural an 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 – see *Regulatory Floodway*

FUNCTIONALLY DEPENDENT USE – 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 and port facilities that are necessary for the loading and unloading of cargo or passengers, and ship-building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

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

HISTORIC STRUCTURE – any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

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

LEVEE – a fabricated 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 – a flood protection system that consists of a 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 – the lowest floor of the lowest enclosed area (including basement). An 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 Program regulations.

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

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

MEAN SEA LEVEL – 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 – 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 – 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 – 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 the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

RECREATIONAL VEHICLE – 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.

REGULATORY FLOODWAY – the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

REPETITIVE LOSS – flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of the repairs at the time of each such flood event, equals or exceeds 25 percent of the market value of the building at the time of each of the two flood losses, or cumulatively total 50 percent of the pre-flood market value.

RIVERINE – relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

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

SPECIAL FLOOD HAZARD AREA – see *Area of Special Flood Hazard*

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 the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms/ nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of dimensions of the building.

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

SUBSTANTIAL DAMAGE – damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The term includes buildings that are determined to be to be Repetitive Loss (see definition).

SUBSTATIAL IMPROVEMENT – 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 term 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 to assure safe living conditions or (2) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

VARIANCE – a grant of relief by a community form the terms of a floodplain management regulation. (For full requirements, see Section 60.6 of the National Flood Insurance Program regulations).

VIOLATION – 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 9or other datum, where specified), of floods of various magnitudes and frequencies ion the floodplain of coastal or riverine areas.

ARTICLE 3

GENERAL PROVISIONS

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard with the jurisdiction of Chambers County.

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

The area of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Chambers County and incorporated areas," dated May 4, 2015, with accompanying Flood Insurance Rate Maps (FIRM) dated May 4, 2015, and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance.

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT

A Floodplain 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 other 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 LIABLITLY

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 fabricated 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 hereunder.

ARTICLE 4
ADMINISTRATION

SECTION A. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The Chambers County Certified Floodplain Manager (CFM) is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (Emergency Management and Assistance – National Flood Insurance Program Regulations) pertaining to floodplain management.

SECTION B. DUTIES & RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

Duties and responsibilities of the Floodplain Administrator shall include, but not 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 to ensure that the proposed building site project, 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 (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the necessary interpretation.
6) Notify, in riverine situations, adjacent communities and the State Coordinating Agency, which is the Texas Water Development Board (TWDB), 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 the base flood elevation data has not been provided in accordance with Article 3, Section B, the Floodplain Administrator shall obtain, review and reasonably 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 of 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 1 foot, provided that the community first completes all of the provisions required by Section 65.12.

SECTION C. <u>PERMIT PROCEDURES</u>

1) Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, 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 (including basement) of all new and substantially improved structures;
(b) Elevation in relation to mean sea level to which any nonresidential structure shall be flood proofed;
(c) A certificate from a registered professional engineer or architect that the nonresidential flood proof structure shall meet the flood proofing criteria of Article 5, Section B (2);
(d) description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of the proposed development;
(e) Maintain a record of all such information in accordance with Article 4, Section B (1)

2) Approval or denial of a Floodplain Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance 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 existing and anticipated development;
(e) The safety of access to the property in times of flood for ordinary and emergency vehicles;
(f) The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems.
(g) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
(h) The necessity to the facility of a waterfront locations, where applicable;
(i) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.

SECTION D. <u>UTILITIES</u>

In order to assure that permits are obtained before construction begins, all utility companies must require proof that a permit has been issued by the Flood Plain Administrator before any utility connection may be made. However, in an emergency, Chambers county gives all utility companies permission to issue electricity for residents that have lost power due to an act of God (i.e., falling tree limb, damaged meter from house fire) or car accident without having to purchase a utility permit only if the service was intact 48 hour prior.

SECTION E. <u>VARIANCE PROCEDURE</u>

1) The Appeal Board, as established by the community, shall hear and render judgment on requests for variances from the requirements of this ordinance.

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 decision in the courts of competent jurisdiction.
4) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances tot eh 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 ½ acres 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 size increases beyond the ½ acre, the technical justification required for issuing the variance increases.
7) Upon consideration of the factors noted above 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 if any increase in flood levels during the base flood discharge would result.
9) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's 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 a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
    (b) Variances shall only be issued upon: (i) showing a good and sufficient cause; (ii) 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 application to which 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 increase risk resulting from the reduced lowest floor elevation.

11) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria outlined in Article 4, Section D (1-9) 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.

ARTICLE 5
PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION A. <u>GENERAL STANDARDS</u>

In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

1) 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;
2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems info flood waters; and,
7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

SECTION B. <u>SPECIFIC STANDARDS</u>

In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) Article 3, Section B, (ii) Article 4, Section B (8), or (iii) Article 5, Section C (3), the following provisions are required:

1) **Residential Construction** – new construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated to 12 inches 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 Article 4, Section C (1) a. is satisfied.

2) **Nonresidential Construction** – new construction and substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including basement) elevated to 12 inches above the base flood elevation or together with attendant utility and sanitary facilities, be designed so that below the base flood elevation the structure is watertight to 12 inches or above the Base Flood Elevation 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.
3) **Enclosure** – new construction, substantial improvements, and appurtenant structures 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 an which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this 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 on separate walls having a total net area of not less than one square inch for every square foot of enclose area subject to flooding shall be provided.
    (b) The bottom of all openings shall be no higher than 1 foot above grade.
    (c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
4) **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 of 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 all manufactured homes be placed or substantially improved on sties with Zones A1-A30, AH, and AE on the community's FIRM be elevated so that the bottom of the I-beam of the manufactured home is at 12 inches or above the base flood elevation, is supported by reinforced piers or other foundation elements of at least equivalent strength and be securely anchored to resist flotation, collapse, and lateral movement.
5) **Recreational Vehicles** – Require that recreational vehicles place on sites within Zones A1-A30, AH, and AE on the community's FIRM either (i) be on the site for fewer than 180 consecutive days, or (ii) meet the permit requirements of Article 4, Section C (1), and

the elevation and anchoring requirements for manufactured homes in paragraph (4) of this section.

All recreational vehicles applicable to this section must be both:

1) Fully licensed and 2) ready for highway use;

- A recreational vehicle is "fully licensed" when all licenses, permits, and privileges to own and operate a recreational vehicle (to include Federal, State, County, and Municipal laws, rules, and regulations) are current and valid.
- 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 19 disconnect type utilities and security devices, and has no permanently attached additions.

6) RV Parks – The owner of the park shall see to it that all RV's abide by the rules and regulations stated in the Floodplain Ordinance, referenced in Article 5, Section B, Excerpt 5. The owner must submit an evacuation plan to the county that clearly outlines the route that is to be followed in case of an emergency. The route shall avoid hazardous and common high water areas. The owner or manager must also keep a log of RV's arriving and departing the premises and send a monthly report to the county, stating all RV's on site.

SECTION C. <u>STANDARDS FOR SUBDIVISION PROPOSALS</u>

1) All subdivision proposals including the placement of manufactured home parks and subdivision shall be consistent with Article 1, Sections 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 Floodplain Development Permit requirements of Article 3, Section C; Article 4, Section C; 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 subdivisions 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 B (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. <u>STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)</u>

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 flood

depths of 1 to 3 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; therefore the following provisions apply:

1) All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified).
2) All new construction and substantial improvements of non-residential structures;
    (a) Have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified), or
    (b) Together with attendant utility and sanitary facilities be designed so that below the base specified flood depth in an AO Zone, or below the Base Flood Elevation in an AH Zone, 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 Article 4, Section C are satisfied.
4) Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide flood waters 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 flood waters 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 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 encroachment within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community **first** completes all of the provisions required by Section 65.12.

SECTION F. <u>COASTAL HIGH HAZARD AREAS</u>

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as Coastal High Hazard Areas (Zones V1-V30, 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 this ordinance, the following provisions must 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 shall maintain a record of all such information.
2) All new construction shall be located landward of the reach of mean high tide.
3) 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 pilings or columns) is elevated 12 inches or above 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 used shall be those associated with the base flood. Wind loading values used 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 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 3 (i) and (ii) of this Section.
4) 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, pen 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. 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. Use of breakaway walls which exceed a design safe loading resistance of 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 deigns proposed meet the following conditions: (i) breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and (ii) 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 and nonstructural). Water loading values used shall be those required by applicable State or local building

standards. Such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

5) Prohibit the use of fill for structural support of buildings.
6) Prohibit man-made alteration of sand dunes and mangrove stands that increase potential flood damage.
7) Manufactured Home - Require all manufactured homes placed or substantially improved within Zone V1-30, V and VE on the community's FIRM meet the requirements of Article 5, Section B (4) of this ordinance.
8) Recreational Vehicle – Require that recreational vehicles placed on sites within Zones V1-30, V, and VE on the community's FIRM either (i) be on the site for fewer than 180 consecutive days, or (ii) meet the permit requirements of Article 4, Section C (1), and the elevation and anchoring requirements for manufactured homes in paragraph (4) of this section.

    All recreational vehicles applicable to this section must be both:

    1) Fully licensed and 2) ready for highway use;
        - A rec A recreational vehicle is "fully licensed" when all licenses, permits, and privileges to own and operate a recreational vehicle (to include Federal, State, County, and Municipal laws, rules, and regulations) are current and valid.
        - 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 19 disconnect type utilities and security devices, and has no permanently attached additions.

SECTION G. <u>SEVERABILITY</u>

If any section, clause, sentence, or phrase of this Ordinance is held to be invalid or unconstitutional by any court or competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Ordinance.

SECTION H. <u>PENALTIES FOR NON COMPLIANCE</u>

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this court order and other applicable regulations. Violation of the provisions of this court order by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this court order or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $500 for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein shall prevent {governing body} from taking such other lawful action as is necessary to prevent or remedy any violation.