

FLOOD HAZARD REGULATIONS

ARTICLE 7 FLOOD HAZARD REGULATIONS

Sec. 9-7-1. Statutory authority.

The legislature of the state has, in NMSA 1978, § 3-18-6, delegated the responsibility to local governmental units to adopt regulations designed to minimize flood losses.

Sec. 9-7-2. Findings of fact.

(a) The flood hazard areas of the village are subject to periodic inundation which results in loss of life and property, health 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.

(b) These 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, floodproofed or otherwise protected from flood damage.

Sec. 9-7-3. Purpose of article.

It is the purpose of this article 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;
- (6) Help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas; and
- (7) Ensure that potential buyers are notified that property is in a flood area.

Sec. 9-7-4. Methods of reducing flood losses.

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

- (1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or which 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, streams, 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.

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Sec. 9-7-5. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. Unless specifically defined in this section, words or phrases used in this article shall be interpreted to give them the meaning they have in common usage and to give this article its most reasonable application.

Alluvial fan flooding means flooding occurring in 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.

Appeal means a request for a review of the enforcement officer's interpretation of any provisions of this article, or a request for a variance.

Area of shallow flooding means a designated AO, AH or VO zone on a community's flood insurance rate map with a one percent or greater 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 means the land in a floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as zone A on the flood hazard boundary map. 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 and V.

Base flood means the flood having a one percent chance of being equalled or exceeded in any given year.

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 manmade change to improved or 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 means a nonbasement building: (1) 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 and V, to have the bottom of the lowest horizontal structural member of the elevated floor, elevated above the ground level by means of pilings, columns (posts and piers) or shear walls parallel to the flow of the water, and (2) 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 A1-30, AE, A, A99, AO, AH, B, C, X and D, the term "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters. In the case of zones V1-30, VE and V, the term "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 meet the standards of section 60-3(3)(5) of the National Flood Insurance Program regulations.

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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 FIRMs 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.

Existing mobile home park or mobile home subdivision means a parcel or contiguous parcels of land divided into two or more mobile home lots for rent or sale for which the construction of facilities for servicing the lot on which the mobile home is to be affixed, including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets, is completed before the effective date of the ordinance from which this article is derived.

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 streets, and final site grading or the pouring of concrete pads.

Expansion to an existing mobile home park or mobile home subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the mobile homes are to be affixed, including the installation of utilities, either final site grading

or the pouring of concrete pads, or the construction of streets.

Flood and *flooding* mean 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 hazard boundary map (FHBM) means an official map of a community, issued by the Federal Emergency Management Agency, where the areas within the boundaries of special flood hazard have been designated as zone A.

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 hazard and the risk premium zones applicable to the community.

Flood insurance study means the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, and the water surface elevation of the base flood, as well as the flood boundary-floodway map.

Flood 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 conformance with sound engineering standards.

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Floodplain and *floodprone area* mean any land area susceptible to being inundated by water from any source (see the definition of "flooding").

Floodway and *regulatory floodway* mean 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.

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 repair facilities, but does not include longterm storage or related manufacturing facilities.

Habitable floor means any floor usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof. A floor used for storage purposes only is not a habitable floor.

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:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily

determined by the Secretary to qualify as a registered historic district;

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

Levee means a manmade 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 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. 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 requirements of section 60.3 of the National Flood Insurance Program regulations.

Manufactured home means a structure, transportable in one or more sections, which is

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built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a recreational vehicle.

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.

Mobile home means a structure, transportable in one or more sections, which is built on a permanent chassis designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers.

New construction means, for the purposes 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.

New mobile home park or mobile home subdivision means a parcel or contiguous

parcels of land divided into two or more mobile home lots for rent or sale for which the construction of facilities for servicing the lot on which the mobile home is to be affixed, including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets, is completed on or after the effective date of the ordinance from which this article is derived.

Recreational vehicle means a vehicle which is:

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

Start of construction, for other than new construction or substantial improvements under the Coastal Barrier Resources Act (PL 97-348), includes substantial improvements 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 the structure on a site, such as the pouring of slabs or footings, the installation of pilings, 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 the installation of streets and/or walkways; nor does it include excavation for basements, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory

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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 the 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 a 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 improvement 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 the start of construction of the improvement. Cost shall be determined according to the standards of section 22-34(b). 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 codes or specifications which have been identified by the local code enforcement official and which are the minimum necessary to ensure 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 means a grant of relief to a person from requirements of this article when specific

enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this article. (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) of the National Flood Insurance Program regulations 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 of 1929, or other datum, where specified, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Sec. 9-7-6. Lands to which article applies.

This article shall apply to all areas of special flood hazard within the jurisdiction of the village.

Sec. 9-7-7. Basis for establishing 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 Ruidoso Downs," dated January 5, 1982, with accompanying flood insurance rate maps and flood hazard boundary-floodway maps, and any revisions thereto, are hereby adopted by reference and declared to be a part of this article.

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Sec. 9-7-8. Development permit required.

A development permit shall be required to ensure conformance with the provisions of this article.

Sec. 9-7-9. Compliance with article and other regulations.

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

Sec. 9-7-10. Abrogation of existing restrictions; conflicting regulations.

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

Sec. 9-7-11. Interpretation of article.

In the interpretation and application of this article, all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally constructed in favor of the council; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 9-7-12. Warning and disclaimer of liability.

The degree of flood protection required by this article 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 manmade or natural causes. This article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the village or any officer or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made thereunder.

Sec. 9-7-13. Designation of floodplain administrator.

The planning officer or his designee is hereby appointed the floodplain administrator to administer and implement the provisions of this article and other appropriate sections of 44 CFR (the National Flood Insurance Program regulations) pertaining to floodplain management.

Sec. 9-7-14. Duties of floodplain administrator.

Duties and responsibilities of the floodplain administrator shall include but not be limited to the following:

- (1) The floodplain administrator shall maintain and hold open for public inspection all records pertaining to the provisions of this article.
- (2) The floodplain administrator shall review permit applications to determine whether proposed building sites will be reasonably safe from flooding.
- (3) The floodplain administrator shall review, approve or deny all applications for development permits required by this article.
- (4) The floodplain administrator shall review applications for proposed development to ensure that all necessary permits have been obtained from

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federal, state or local governmental agencies from which prior approval is required (including those required by section 404 of the federal Water Pollution Control Act Amendments of 1972, 33 USC 1334).

- (5) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazard (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) The floodplain administrator shall notify, in riverine situations, adjacent communities and the state coordinating agency, which is the emergency management bureau, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (7) The floodplain administrator shall ensure 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 section 9-7-7, 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 this article.
- (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.

Sec. 9-7-15. Issuance of development permit.

- (a) Application. Application for a development permit shall be presented to the enforcement officer on forms furnished by him, and may include but shall not be limited to plans in duplicate drawn to scale showing the locations, dimensions and elevation of proposed landscape alterations and existing and proposed structures, and their location in relation to areas of special flood hazard. Additionally, the following information is required:
 - (1) Elevation, in relation to mean sea level, of the lowest floor, including basement, of all new and substantially improved structures.
 - (2) Elevation, in relation to mean sea level, to which any nonresidential structure shall be floodproofed.
 - (3) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of section 9-7-17.
 - (4) A description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

The enforcement officer shall maintain a record of all such information in accordance with section 9-7-14(1).

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(b) Criteria for approval. Approval or denial of a development permit by the enforcement officer shall be based on all of the provisions of this article and the following relevant factors:

- (1) The danger to life and property due to flooding or erosion damage.
- (2) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
- (3) The danger that materials may be swept onto other lands to the injury of others.
- (4) The compatibility of the proposed use with existing and anticipated development.
- (5) The safety of access to the property in times of flood for ordinary and emergency vehicles.
- (6) 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, electric and water systems.
- (7) 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.
- (8) The necessity to the facility of a waterfront location, where applicable.
- (9) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.
- (10) The relationship of the proposed use to the comprehensive plan for that area.

Sec. 9-7-16. Variances.

- (a) The enforcement officer shall hear and render judgment on requests for variances from the requirements of this article.
- (b) The planning commission shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision or determination made by the enforcement officer in the enforcement or administration of this article.
- (c) Any person aggrieved by the decision of the planning commission may appeal such decisions to the council as provided in section 9-10-32, and then to the courts of competent jurisdiction.
- (d) 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.
- (e) 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 article.
- (f) Generally, 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 9-7-15(b) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- (g) Upon consideration of the factors noted in this section and the intent of this article, the planning commission may attach such

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conditions to the granting of variances as it deems necessary to further the purpose and objectives of this article.

- (h) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (i) Prerequisites for granting variances are as follows:
 - (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - (2) Variances shall only be issued upon:
 - a. A showing of good and sufficient cause;
 - b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - (3) 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.
- (j) Variances may be issued for new construction and substantial improvements and for other development necessary for the

conduct of a functionally dependent use provided that:

- (1) The criteria outlined in this article are met.
- (2) 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.
- (k) 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 that the variance is the minimum necessary to preserve the historic character and design of the structure.

Sec. 9-7-17. General standards.

In all areas of special flood hazard, the following provisions are required:

- (1) All new construction and 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 and utility equipment resistant to flood damage;
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning

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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) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharges from the systems into floodwaters; and
- (6) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Sec. 9-7-18. Specific standards.

In all areas of special flood hazard where base flood elevation data has been provided as set forth in section 9-7-7, 9-7-14(8) or 9-7-17, the following provisions are required:

- (1) Residential construction. New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. A registered professional engineer, architect or land surveyor shall submit a certification to the enforcement officer that the standard of this subsection, as proposed in section 9-7-15, is satisfied.
- (2) Nonresidential construction. New construction or substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to or above the base flood level, or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water

and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications and plans for the construction and shall certify that such design, specifications and plans are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the floodplain administrator.

- (3) Enclosures. New construction and substantial improvements with fully enclosed areas below the lowest floor that 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 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 and exit of floodwaters.
- (4) Manufactured homes and Mobile homes.

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a. Manufactured or mobile 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 or mobile home park or subdivision;
2. In a new manufactured or mobile home park or subdivision;
3. In an expansion to an existing manufactured or mobile home park or subdivision; or
4. In an existing manufactured or mobile home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood;

shall be elevated on a permanent foundation such that the lowest floor of the manufactured or mobile home is elevated to or above the base flood elevation, and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

- b. All manufactured or mobile homes shall be in compliance with subsection (1) of this section.
- c. Manufactured or mobile homes to be placed or substantially improved on sites in an existing manufactured or mobile home park or subdivision within zones A1-30, AH and AE on the community's FIRM that are not subject to provisions of subsection (4)a of this section shall be elevated so that either:

1. The lowest floor of the manufactured or mobile home is at or above the base flood elevation; or
2. The manufactured or mobile home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and is securely anchored to an adequately anchored foundation system to resist floatation, collapse and lateral movement.

(5) Floodways. Located within areas of special flood hazard established in section 9-7-7 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:

- a. Encroachments are prohibited, including fill, new construction, substantial improvements and other development, unless certification by a professional registered engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- b. If the requirements of this article are satisfied, all new construction and substantial improvements shall comply within all applicable flood hazard reduction provisions of section 9-7-17.

(6) Recreational vehicles. Recreational vehicles placed on sites within zones

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A1-30, AH and AE on the community's FIRM shall either:

- a. Be on the site for fewer than 180 consecutive days;
- b. Be fully licensed and ready for highway use; or
- c. Meet the permit requirements of this article and the elevation and anchoring requirements for manufactured homes in subsection (4) 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.

- (7) Evacuation plan. A plan for evacuating residents of all manufactured home parks or subdivisions located within floodprone areas shall be developed and filed with and approved by the enforcement officer.
- (8) Wells, Domestic and Public
 - a. No well shall be located in a floodway.
 - b. Any well located within any other areas of special flood hazard or A1-30, AH, or AE zones must be capped above the 100 year flood elevation as certified by a professional engineer, or surveyor.

Sec. 9-7-19. Standards for areas of shallow flooding.

Located within the areas of special flood hazard established in section 9-7-7 are areas designated as shallow flooding. These areas have special flood hazards associated with base

flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions shall apply:

- (1) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM, or at least two feet if no depth number is specified.
- (2) All new construction and substantial improvements of nonresidential structures shall:
 - a. Have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM, or at least two feet if no depth number is specified; or
 - b. 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 or effects of buoyancy.
- (3) A registered professional engineer or architect shall submit a certification to the enforcement officer that the standards of this section, as proposed in section 9-7-15(b), are satisfied.
- (4) Within zones AH and AO, adequate drainage paths are required around structures on slopes to guide

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floodwaters around and away from proposed structures.

Sec. 9-7-20. Standards for subdivision proposals.

- (a) All subdivision proposals, including manufactured home parks and subdivisions, shall be consistent with sections 9-7-1 through 9-7-3.
- (b) All proposals for the development of subdivisions, including mobile home, trailer or RV parks and subdivisions, shall meet the development permit requirements of sections 9-7-15 and 9-7-17, and other provisions of this article.
- (c) Base flood elevation data shall be generated for subdivision proposals and other proposed development, including manufactured home parks and subdivisions.
- (d) All subdivision proposals, including mobile home, trailer, or RV parks and subdivisions, shall have adequate drainage provided to reduce exposure to flood hazards.
- (e) All subdivision proposals, including manufactured home parks and subdivisions, shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed so as to minimize or eliminate flood damage.

Sec. 9-7-21. Computer programs for identification and mapping of special flood hazard areas.

Any computer program used to perform hydrologic or hydraulic analyses in support of a flood insurance map revision must meet all of the following criteria:

- (1) It must have been reviewed and accepted by a governmental agency

responsible for the implementation of programs for flood control and/or the regulation of floodplain lands. For computer programs adopted by non-federal agencies, certification by a responsible agency official must be provided which states that the program has been reviewed, tested and accepted by that agency for purposes of design of flood control structures or floodplain land use regulation.

- (2) It must be well documented, including source codes and user's manuals.
- (3) It must be available to the Federal Emergency Management Agency and all present and future parties impacted by flood insurance mapping developed or amended through the use of the program. For programs not generally available from a federal agency, the source code and user's manuals must be sent to the Federal Emergency Management Agency free of charge, with fully documented permission from the owner that the Federal Emergency Management Agency may release the code and user's manuals to such impacted parties.