

Chapter 38 FLOODS¹

ARTICLE I. IN GENERAL

Secs. 38-1—38-30. Reserved.

ARTICLE II. FLOOD DAMAGE PREVENTION IN CITY

DIVISION 1. GENERALLY

Sec. 38-31. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings provided in this section, except where the context clearly indicates a different meaning:

Administrator means the Federal Insurance Administrator.

Appeal means a request for a review of the floodplain administrator's interpretation of any provisions of this article or a request for a variance.

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

Basement means any area of a building having its floor below ground level on all sides.

Compensatory storage means an excavated hydrologically and hydraulically equivalent volume of storage created to offset the loss of existing flood storage.

Crawlspace means a foundation of solid walls which does not constitute useable space.

Development means any manmade change to improved or unimproved real property including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.

Existing manufactured home park or subdivision means a manufactured home park for which the construction of facilities for servicing the lot upon which the manufactured homes are 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) are completed before the effective date this ordinance was originally adopted.

¹Charter reference(s)—General powers of the city, § 1.02.

Cross reference(s)—Buildings and building regulations, ch. 22; health and sanitation, ch. 42; planning, ch. 66; streets, sidewalks and other public places, ch. 74; utilities, ch. 86; zoning, ch. 94.

Expansion to existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities to service the lots upon which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets).

Flood and flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

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

Flood insurance rate map (FIRM) means the official map upon which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the city.

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

Floodplain administrator means the city manager's authorized representative.

Floodway means 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 one foot.

Lowest floor means the lowest floor of the lowest enclosed area, including the basement, but excluding crawlspace. An unfinished or flood-resistant enclosure, usable solely for parking of 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 nonelevation design requirements of this article.

Manufactured home 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 attached to the required utilities. The term "manufactured home" does not include a recreational vehicle. A mobile home is considered a manufactured home for purposes of this ordinance.

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.

New construction means structures for which the start of construction commenced on or after the effective date this ordinance was originally adopted.

New manufactured home park or subdivision means a manufactured home, park or subdivision for which the construction of facilities for servicing the lots upon 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 this ordinance was originally adopted.

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 projections;
- (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 a temporary living quarters for recreational, camping, travel or seasonal use.

Special flood hazard area (SFHA) means that land in the floodplain subject to a one percent or greater chance of flooding in any given year.

Start of construction includes substantial improvement, and means the date the building permit was issued, provided that the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the building permit date. The actual start means 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 state 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 street and/or walkways; nor does it include excavation for a 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 which are not part of the main structure.

Structure means a walled and roofed building or manufactured home that is principally located above-ground.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damage 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. The term "substantial improvement" includes structures which incurred substantial damage regardless of the actual repair work performed. The term "substantial improvement" 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 or building official and which are the minimum necessary to ensure safe living conditions; or
- (2) Any alteration of a historic structure, provided that the structure continues to be designated as a historic structure.

Variance means a grant of relief from the requirements of this ordinance which permits construction in a manner which would otherwise be prohibited by this ordinance.

(Code 1996, § 15-5; Ord. No. 29-08, 7-8-2008)

Cross reference(s)—Definitions generally, § 1-2.

Sec. 38-32. Statutory authorization.

SDCL Chapter 11-4 (SDCL 11-4-1, et seq.) delegates the responsibility to local governmental units to adopt regulations designed to promote the public health, safety and general welfare of the city and its joint jurisdictional area.

(Code 1996, § 15-1)

Sec. 38-33. Findings of fact.

- (a) The flood hazard areas of the city and within the joint jurisdictional area are subject to periodic inundation which results in the potential for loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- (b) Flood losses are caused, in part, by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when such obstructions are inadequately anchored, damage

uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the potential for flood loss.

(Code 1996, § 15-2)

Sec. 38-34. Statement of purpose.

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

- (1) Protect human life and health;
- (2) Minimize expenditures of public funds 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, and streets and bridges located in areas of special flood hazard;
- (6) Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard to minimize future flood blight areas;
- (7) Ensure that potential buyers of property are notified that property is in an area of special flood hazard; and
- (8) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(Code 1996, § 15-3)

Sec. 38-35. Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- (1) Restricting or prohibiting uses which are dangerous to life, health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, are protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;
- (4) Controlling filling, grading, dredging and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

(Code 1996, § 15-4)

Sec. 38-36. Lands to which this article applies.

This chapter applies to all areas of special flood hazard within the city and its joint jurisdictional area.

(Code 1996, § 15-6)

Sec. 38-37. Compliance with article provisions.

Structures and land which are constructed, located, extended or altered must comply with the regulations provided in this article.

(Code 1996, § 15-8)

Sec. 38-38. Basis for establishing the areas of special flood hazard.

The areas of special flood hazard are identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Brookings County, South Dakota and incorporated areas," dated July 16, 2008, with the accompanying flood insurance rate maps (FIRM). This study and accompanying maps are adopted by reference and declared to be a part of this chapter. The flood insurance study and FIRM are on file at the Community Development Department, City of Brookings, 520 Third Street, Brookings, South Dakota.

(Code 1996, § 15-7; Ord. No. 29-08, 7-8-2008)

Sec. 38-39. Abrogation and greater restrictions.

This ordinance is not intended to repeal, modify 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.

(Code 1996, § 15-9)

Sec. 38-40. Interpretation.

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

- (1) Considered as minimum requirements;
- (2) Liberally construed to further the purposes of this ordinance; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

(Code 1996, § 15-10)

Sec. 38-41. Warning and disclaimer of liability.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This ordinance 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 damage. This ordinance does not create liability on the part of the city, any officer or employee thereof, or the Federal Emergency Management Agency for any flood damages which result from reliance on this ordinance or of any administrative decision lawfully made under this ordinance.

(Code 1996, § 15-11)

Secs. 38-42—38-60. Reserved.

DIVISION 2. ADMINISTRATION AND ENFORCEMENT²

Sec. 38-61. Development permit required; application.

A development permit must be obtained before construction or development begins within any area of special flood hazard established in section 38-38 of this ordinance. Application for a development permit shall be made on forms furnished by the community development department and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of these proposed improvements. Specifically, the following information is required:

- (1) Elevation in relation to mean sea level of the lowest floor, including the basement, of all structures;
- (2) Elevation in relation to mean sea level to which any structure has been floodproofed;
- (3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure comply with the floodproofing criteria provided in the applicable subsection of 38-82(2); and
- (4) Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.

(Code 1996, § 15-21)

Sec. 38-62. Floodplain administrator.

- (a) *Designated.* The floodplain administrator is appointed to administer and implement this ordinance by considering any development permit application in accordance with the provisions of this ordinance.
- (b) *Duties and responsibilities.* The duties of the floodplain administrator include, but are not limited to:
 - (1) *Permit review.*
 - a. Review all development permits to determine that the permit requirements of this ordinance are satisfied.
 - b. Review all development permits to determine that all necessary permits have been obtained from federal, state or local governmental agencies from which prior approval is required;
 - c. Review all development permits to determine if the proposed development is located in the floodway. If the proposed development is located in the floodway, ensure that the encroachment provisions of subsection 38-83(1) are satisfied.
 - (2) *Use of other base flood data.* When base flood elevation data have not been provided in accordance with section 38-38 of this ordinance, the floodplain administrator may obtain, review and reasonably utilize any base flood elevation and floodway data available from any federal, state or other source as

²Cross reference(s)—Administration, ch. 2.

criteria to administer, in accordance with section 38-82, the requirements pertaining to new construction, substantial improvements, or other development in the special flood hazard area.

(3) *Information to be obtained and maintained.*

- a. Obtain from the applicant and record the actual elevation, in relation to mean sea level, of the lowest floor, including the basement, of all new or substantially improved structures, and whether or not the structure contains a basement.
- b. For all new or substantially improved floodproofed structures:
 1. Verify and record the actual elevation, in relation to mean sea level, to which the structure has been floodproofed;
 2. Maintain the floodproofing certifications required in subsection 38-61(3) of this ordinance.

(4) *Alteration of watercourses.*

- a. Notify adjacent communities, the county drainage and zoning officer and the State Division of Emergency Services prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency.
- b. Require that maintenance is provided within the altered or relocated portion of the watercourse so that the flood-carrying capacity is not diminished.

(5) *Interpretation of FIRM boundaries.* Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazard (for example, where there appears to be conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall have a reasonable opportunity to appeal the interpretation as provided in section 38-63 of this ordinance.

(Code 1996, § 15-23)

Cross reference(s)—Officers and employees, § 2-62 et seq.

Sec. 38-63. Variance procedure.

- (a) The board of adjustment shall hear and decide appeals and requests for variances from requirements of this ordinance.
- (b) The board of adjustment shall also hear and decide appeals if 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.
- (c) Those aggrieved by a decision of the board of adjustment, or any taxpayer, may appeal such decisions to the circuit court, as provided in SDCL 11-4-25.
- (d) In considering appeals, the board of adjustment shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:
 - (1) The danger that materials may be swept onto other lands to the injury of others;
 - (2) The danger to life and property due to flooding or erosion damage;
 - (3) The susceptibility of the proposed development and its contents to flood damage and the effect of such damage on the individual owners;
 - (4) The importance of the services provided by the proposed development to the city;

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- (5) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - (6) The compatibility of the proposed use with the existing and anticipated development;
 - (7) The relationship of the proposed development to the comprehensive plan and floodplain management program for that area;
 - (8) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (9) 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; and
 - (10) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, streets and bridges.
- (e) Upon consideration of the factors provided in subsection (d) of this section and the purposes of this ordinance, the board of adjustment may attach conditions when granting a variance as it deems necessary to further the purposes of this ordinance.
 - (f) The floodplain administrator shall maintain a record of all appeals, including technical information, and report any variances to the Federal Emergency Management Agency.
 - (g) Conditions for variances are as follows:
 - (1) Generally, a variance 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 level, provided that items in subsection (d) of this section have been fully considered. For a lot size in excess of one-half acre, the technical justifications required for issuing the variance increase with larger lot sizes.
 - (2) 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 section.
 - (3) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
 - (4) Variances may only be issued upon a determination that, considering the flood hazard, the variance is the minimum necessary variance to afford relief.
 - (5) Variances may 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 or additional threats to public safety, will not result in extraordinary public expenses, will not create a nuisance, cause damage to the public as identified in subsection (d) of this section or conflict with existing ordinances.
 - (6) Any applicant to whom a variance is granted must be given written notice that the structure will be permitted to be built with a lowest floor below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk from the reduced lowest floor elevation.

(Code 1996, § 15-24)

Secs. 38-64—38-80. Reserved.

DIVISION 3. FLOOD HAZARD REDUCTION

Sec. 38-81. General standards.

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

(1) *Anchoring.*

- a. All new construction and substantial improvements must be anchored to prevent flotation, collapse or lateral movement of the structure and shall be capable of resisting the hydrostatic and hydrodynamic loads.
- b. All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring 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. Specific requirements are:
 1. Over-the-top ties shall be provided at each of the four corners of the manufactured home with two additional ties per side at intermediate locations, with manufactured homes which are less than 50 feet long requiring one additional tie per side;
 2. Frame ties shall be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured homes which are less than 50 feet long requiring four additional ties per side;
 3. All components of the anchoring system must be capable of carrying a force of 4,800 pounds; and
 4. Any additions to the manufactured home shall be similarly anchored.
- c. The provisions of this subsection (1), relative to anchoring, shall not be applicable where the artificial or natural ground beneath a structure is at or above the base flood elevation.

(2) *Construction materials and methods.*

- a. All new construction and substantial improvements must be constructed with materials and utility equipment resistant to flood damage.
- b. All new construction and substantial improvements must be constructed using methods and practices which minimize flood damage.
- c. All new construction and substantial improvements must 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 their components during conditions of flooding.

(3) *Utilities.*

- a. All new and replacement water supply systems must be designed to minimize or eliminate infiltration of floodwaters into the system;

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- b. New and replacement sanitary sewer systems must be designed to minimize or eliminate the infiltration of floodwaters into the systems and minimize or eliminate the discharge from the systems into floodwaters; and
 - c. On-site waste disposal systems must be located to avoid impairment to them or contamination from them during flooding.
- (4) *Subdivision proposals.*
- a. All subdivision proposals shall be consistent with the need to minimize flood damage;
 - b. All subdivision proposals must have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
 - c. All subdivision proposals must have adequate drainage provided to reduce exposure to flood damage; and
 - d. Base flood elevation data must be provided for subdivision proposals and other proposed development which contain at least 50 lots or five acres, whichever is less.

(Code 1996, § 15-31)

Sec. 38-82. Specific standards.

- (a) When the city has received notice of final flood elevations for one or more special flood hazard areas on the city's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the city's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the city shall:
 - (1) Require the standards of section 60.3(b) of the current NFIP regulations (44 CFR Parts 59-78) within all A1-30 zones, AE zones, A zones, AH zones, and AO zones, on the city's FIRM;
 - (2) Require that all new construction and substantial improvements of residential structures within zones A1-30, AE, and AH zones on the city's FIRM have the lowest floor (including basement) elevated to one foot or more above the base flood level, unless the city is granted an exception for the allowance of basements in accordance with section 60.6(b) or (c) of the current NFIP regulations (44 CFR Parts 59-78);
 - (3) Require that all new construction and substantial improvements of nonresidential structures within zones A1-30, AE, and AH zones on the city's FIRM (i) have the lowest floor (including basement) elevated to **two feet** or more above the base flood level, or (ii) 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;
 - (4) Require that where a nonresidential structure is intended to be made watertight below the base flood level, (i) 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 for meeting the applicable provisions of subsection (a)(3)(ii) or (a)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained for public inspection and furnished to the city upon request, for the determination of applicable flood insurance risk premium rates within all areas having special flood hazards identified on a FHBM or FIRM, any certificates of floodproofing, and information on the elevation (in relation to mean sea level) of the level of the lowest floor (including basement) of all new or substantially improved structures, and include whether or not such structures contain a basement, and if the

structure has been floodproofed, the elevation (in relation to mean sea level) to which the structure was floodproofed;

- (5) Require, for all new construction and substantial improvements, that 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 entry and exit of floodwaters. Designs which satisfy this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: 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. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic entry and exit of floodwaters.
- (6) Require that manufactured homes that are placed or substantially improved within zones A1-30, AH, and AE on the city'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 park or subdivision, or
 - (iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and is securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement.
- (7) Require within any AO zone on the city's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least two feet if no depth number is specified);
- (8) Require within any AO zone on the city's FIRM that all new construction and substantial improvements of nonresidential improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in [subsection] (a)(3)(ii);
- (9) Require within any A99 zones on a city's FIRM the standards of section 60.3(a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of the current NFIP regulations (44 CFR parts 59-78).
- (10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the city'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 city.
- (11) Require within zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.
- (12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within zones A1-30, AH, and AE on the city's FIRM that are not subject to the provisions of subsection (a)(6) be elevated so that either:

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- (i) The lowest floor of the manufactured home is at or above the base flood elevation, or
 - (ii) The manufactured 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 are securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.
- (13) Notwithstanding any other provisions of section 38-82, the city may approve certain development in zones A1-30, AE, and AH, on the city's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the city first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of section 65.12 of the current NFIP regulations (44 CFR parts 59-78), and receives the approval of the Federal Insurance Administrator.
- (14) Require that recreational vehicles placed on sites within zones A1-30, AH, and AE on the city's FIRM either:
- (i) Be on the site for fewer than 180 consecutive days,
 - (ii) Be fully licensed and ready for highway use, or
 - (iii) Meet the permit requirements of section 60.3(b)(1) of the current NFIP regulations (44 CFR parts 59-78) and the elevation and anchoring requirements for "manufactured homes" in subsection (a)(6).
- (15) Unless otherwise specified in this subsection, development in the floodplain shall result in no net loss of natural floodplain storage, and compensatory storage equal to the volume of floodplain storage displaced shall be provided for all development above grade in the floodplain. All required compensatory storage shall be located at a hydraulically connected site within the same drainage basin. For developments that are required to have stormwater detention facilities, the storage volume required to meet the city's stormwater management regulations for the 100-year flood event does not count as credit towards satisfying the compensatory storage requirement.
- a. The following development projects are not required to meet the compensatory storage requirement unless specifically required by the city engineer after review of the initial certificate of compliance application:
 - i. Minor projects clearly having negligible impact, such as street/parking lot resurfacing/rehabilitation, certain utility infrastructure and appurtenances (e.g. hydrants, poles, manholes, underground pipes), bridge/culvert rehabilitation projects, landscaping, property maintenance, stream rehabilitation, restoration of natural floodplain functions, and minor water quality features which typically pose no increased fill or flood potential and do not inhibit the free flow of water.
 - ii. Flood protection of existing buildings for floodplain volume displaced by the building and within the area of ten feet adjacent to said building.
- (b) 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.
- (c) When the Federal Insurance Administrator provides notice of final base flood elevations within zones A1-30 and/or AE on the city's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the city's FIRM, and has provided data from which the city shall designate its regulatory floodway, the city shall:
- (1) Meet the requirements of subsection (a)(1) through (14);

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- (2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point;
 - (3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the city during the occurrence of the base flood discharge;
 - (4) Notwithstanding any other provisions of section 38-82, the city may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided the city first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of section 65.12 of the current NFIP regulations (44 CFR Parts 59-78) and receives the approval of the Federal Insurance Administrator.

(Code 1996, § 15-32; Ord. No. 29-08, 7-8-2008)

Sec. 38-83. Floodways.

Located within areas of special flood hazard, established in section 38-38, 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 apply:

- (1) Encroachments, including fill, new construction, substantial improvements, and other developments are prohibited unless certification by a registered professional engineer or architect is provided demonstrating that encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) If subsection (1) of this section is satisfied, all new construction and substantial improvements must comply with all applicable flood hazard reduction provisions of this ordinance.

(Code 1996, § 15-33)

Secs. 38-84—38-100. Reserved.

ARTICLE III. RESERVED³

Secs. 38-101—38-152. Reserved.

³Editor's note(s)—At the direction of the city, Art. III has been deleted from this Code. Former Art. III, §§ 38-101—38-111, 38-131, 38-132, 38-151, 38-152, pertained to flood damage prevention in joint jurisdiction area and derived from Code 1996, §§ 16-1—16-11, 16-21, 16-23, 16-31, and 16-32.