

CHAPTER 4.05 - FLOOD DAMAGE PREVENTION.

Flood Damage Prevention Regulations

Section 4.05.01. - Statutory Authorization, Findings of Fact, Purpose and Objectives.

1. Statutory Authorization

The Legislature of the State of South Dakota has in SDCL Chapter 11-2 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the County Commissioners of Brookings County, South Dakota, ordain as follows:

2. Findings of Fact

- a. The flood hazard areas of Brookings County are subject to periodic inundation which results in 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. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

3. Statement of Purpose

It is the purpose of these regulations 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:

- a. To protect human life and health;
- b. To minimize expenditure of public money for costly flood control projects;
- c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- d. To minimize prolonged business interruptions;

- e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- f. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- g. To ensure that potential buyers are notified that property is in an area of special flood hazard; and,
- h. To ensure that those who occupy the areas of special flood hazards assume responsibility for their actions.

Section 4.05.02. - Methods of Reducing Flood Losses

In order to accomplish its purposes, these regulations include methods and provisions for:

- 1. Restricting or prohibiting uses which are dangerous to 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, be 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 flood waters;
- 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 flood waters or which may increase flood hazards in other areas.

Section 4.05.03 - Definitions

Unless specifically defined below, words or phrases used in these regulations shall be interpreted so as to give them the meaning they have in common usage and to give these regulations the most reasonable application.

- 1. Area of Special Flood Hazard means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

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2. Base Flood means the flood having a one percent chance of being equaled or exceeded in any given year.
3. Corner Lot: A corner lot will have two front yards. In the case of a lot abutting more than one street, the owner may choose any street lot line as the front lot line with consent of the Zoning Official, based on the effects of such choice on development of the lot itself or on adjacent properties. The rear lot line is opposite and most distant the front lot line.th two front yards.
4. Development means any man-made 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 located within the area of special flood hazard.
5. Flood or Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:
 - a. The overflow of inland or tidal waters and/or
 - b. The unusual and rapid accumulation of runoff of surface waters from any source.
6. Flood Insurance Rate Map (FIRM) The official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community. (Ord 2008-07, 6-24-2008)
7. Flood Insurance Study (FIS) A Flood Insurance Study (FIS) is a book that contains information regarding flooding in a community and is developed in conjunction with the Flood Insurance Rate Map (FIRM). (Ord 2008-07, 6-24-2008)
8. Manufactured Home is a building, used exclusively for human habitation, which is constructed in a manufacturing facility after June 15, 1976, in compliance with the National Manufactured Home Construction and Safety Standards Act and transportable in one or more sections to a building site.
9. Mobile Home is a building, used exclusively for human habitation, constructed in a manufacturing facility prior to June 15, 1976, the effective date of the National Manufactured Home Construction and Safety Standards Act, which is transported on a permanent chassis to a building site. A mobile home shall be construed to remain a mobile home subject to all regulations applying thereto, whether or not wheels, axles, hitch or other appurtenances of mobility are removed and regardless of the nature of the foundation provided. A travel trailer or other form of recreational vehicle shall not be construed to be a mobile home.

10. Modular Home is a building, used exclusively for human habitation, constructed off site and in compliance with the applicable local or state building code and which is transported on a temporary chassis to a permanent building site.
11. Structure means a walled and roofed building or manufactured home that is principally above ground.
12. Substantial Improvement means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:
 - a. Before the improvement or repair is started, or
 - b. If the structure has been damaged and is being restored, before the damage occurred. For the purpose of this designation, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

- a. Any project for improvement of a structure to comply with existing State or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or
 - b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.
13. Zoning Complaints. All zoning complaints must be in writing and signed.

Section 4.05.04. General Provisions

1. Lands to Which This Ordinance Applies.

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of Brookings County.

2. Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM), dated July 16, 2008, is adopted by reference and declared to be part of these regulations. The FIRM is on file at the County Zoning Office, Brookings, SD. (Ord. 2008-07, 6-24-2008)

3. Compliance

No structure or land shall hereafter be constructed, located, extended, or altered without full compliance with the terms of these regulations and other applicable regulations.

4. Abrogation and Greater Restrictions

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

5. Interpretation.

In the interpretation of these regulations, all provisions shall be:

- a. Considered as minimum requirements;
- b. Liberally construed in favor of the governing body; and
- c. Deemed neither to limit nor repeal any other powers granted under State statutes.

6. Warning and Disclaimer of Liability

The degree of flood protection required by these regulations 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 man-made or natural causes. These regulations do not imply that land outside the areas of special flood hazards or uses permitted within such areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. These regulations shall not create liability on the part of Brookings County, any officer or employee thereof, or the Federal Emergency Management Agency for any flood damages that result from reliance on these regulations or any administrative decision lawfully made thereunder.

7. Severability

If any section, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court, the remainder of the ordinance shall not be affected.

Section 4.05.05. Administration

1. Establishment of Development Permit

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 4.05.04.2 Application for a development permit shall be made on forms furnished by the Zoning officer 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 the forgoing. Specifically, the following information is required:

- a. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;
- b. Elevation in relation to mean sea level to which any structure has been flood proofed;
- c. Certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet the flood proofing criteria in Section 4.05.06.2.b; and
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

2. Designation of the Zoning Officer

The Zoning officer is hereby appointed to administer and implement these regulations by granting or denying development permit applications in accordance with their provisions.

3. Duties and Responsibilities of the Zoning Officer

Duties of the Zoning Officer shall include but not be limited to:

- a. Permit Review
 - i. Review of all development permits to determine that the permit requirements of these regulations have been satisfied.
 - ii. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.

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- iii. Review all development permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard. For the purposes of these regulations, "adversely affects" means damage to adjacent properties because of rises in flood stages attributed to physical changes of the channel and the adjacent overbank areas.
 1. If it is determined that there is no adverse effect and the development is not a building, then the permit shall be granted without further consideration.
 2. If it is determined that there is an adverse effect, then technical justification (i.e., a registered professional engineer's certification) for the proposed development shall be required.
 3. If the proposed development is a building, then the provisions of these regulations shall apply.

b. Uses of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 4.05.04.2, Basis for Establishing the Areas of Special Flood Hazard, the Zoning officer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring that new construction, substantial improvements, or other development in Zone A are administered in accordance with Section 4.05.06.2, Specific Standards.

c. Information to be Obtained and Maintained.

- i. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
- ii. For all new or substantially improved flood proofed structures:
 1. Verify and record the Actual elevation (in relation to mean sea level) to which the structure has been flood proofed.
 2. Maintain the flood proofing certification required in Section 4.05.05.1.c.
- iii. Maintain for public inspection all records pertaining to the provisions of these regulations.

- d. Alteration of Watercourses
 - i. Notify adjacent communities and Emergency and Disaster Services, Pierre, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
 - ii. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.
- e. Interpretation of FIRM Boundaries

Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, there appears to be a conflict between a mapped boundary and actual field conditions).

Section 4.05.06. Provisions for Flood Hazard Reduction

1. General Standards

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

- a. Anchoring
 - i. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads.
 - ii. 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 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. Specific requirements may be:
 - 1. Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than 50 feet long requiring one additional tie per side.
 - 2. Frame ties must be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured

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homes less than 50 feet long requiring four additional ties per side;

3. All components of the anchoring system be capable of carrying a force of 4,800 pounds; and
4. Any additions to the manufactured home must be similarly anchored.

b. Construction Materials and Methods

- i. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- ii. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- iii. All new construction and 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.

c. Utilities

- i. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- ii. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and
- iii. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

d. Subdivision Proposals

- i. All subdivision proposals shall be consistent with the need to minimize flood damage;
- ii. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;

- iii. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
- iv. Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or five acres (whichever is less).

e. Encroachments

Encroachments, including fill, new construction, substantial improvements, and other development shall be prohibited in any floodway unless a technical evaluation demonstrates that the encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge.

2. Specific Standards

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 4.05.05.3.b, Use of Other Base Flood Data, the following standards are require.

a. Residential Construction

New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to one foot above the base flood elevation.

i. Below-Grade Residential Crawlspace Construction

New construction and substantial improvement of any below-grade crawlspace shall:

- 1. Have the interior grade elevation that is below base flood elevation no lower than two feet below the lowest adjacent grade;
- 2. Have the height of the below-grade crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall, not exceed four feet at any point;
- 3. Have an adequate drainage system that allows floodwaters to drain from the interior area of the crawlspace following a flood;

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4. Be anchored to prevent flotation, collapse, or lateral movement of the structure and be capable of resisting the hydrostatic and hydrodynamic loads;
5. Be constructed with materials and utility equipment resistant to flood damage;
6. Be constructed using methods and practices that minimize flood damage;
7. 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;
8. 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, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. (Ord. 2004-01, 9-28-2004).

b. Nonresidential Construction

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to one foot above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

- i. Must be flood proofed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water;

- ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- iii. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this paragraph. Such certifications shall be provided to the official as set forth in Section 4.05.05.3.c.ii.

Section 4.05.07. Penalties for Noncompliance

1. It is declared unlawful for any person to violate any of the terms and provisions of these regulations or other official control adopted by the Board of County Commissioners pursuant thereto. Any person who violates, disobeys, omits, neglects or refuses to comply with or resists the enforcement of any provision of this Zoning Ordinance may be subject to a civil or criminal penalty. The maximum penalty for violation of this Zoning Ordinance shall be five hundred dollars (\$500.00) or thirty (30) days in the County Jail or both. In addition the violator shall pay all costs and expenses involved in the case. Each and every day that such violation continues after notification shall constitute a separate offense. All fines for violation shall be paid to the Finance Office and shall be credited to the General Fund of the County.

The owner or tenant of any building, structure, premises, or part thereof, any architect, builder, contractor, agent, or other person who commits, participates in, assists in, or maintains such violation may each be found guilty of a separate offense and suffer the penalties herein provided. Nothing herein contained shall prevent the County from taking such other lawful action as is necessary to prevent or remedy any violation.

2. In the event any building or structure is erected, constructed, reconstructed, altered, repaired, converted or maintained, or any building, structure or land is used in violation of these regulations, the appropriate authorities of Brookings County in addition to other remedies, may institute injunction, mandamus or other appropriate actions or proceedings in a court of competent jurisdiction to prevent, restrain, correct or abate such violation of these regulations, and it is the duty of the State's Attorney to institute such action.