

ORDINANCE 25-010

AN ORDINANCE AMENDING CHAPTER 38 - FLOODS, OF THE CODE OF ORDINANCES OF THE CITY OF BROOKINGS, AND PERTAINING TO THE FLOOD PREVENTION AND REGULATIONS.

BE IT ORDAINED by the Governing Body of the City of Brookings, South Dakota that the Chapter 28 – Floods, be deleted in its entirety and restated as follows:

ARTICLE II - FLOOD DAMAGE PREVENTION ORDINANCE

DIVISION I

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

Sec. 38-31. STATUTORY AUTHORIZATION AND BACKGROUND

- a. The Legislature of the State of South Dakota has in SDCL 11-2-13 and 11-4-1 delegated the responsibility to local governmental units to adopt regulations designed to minimize flood losses.
- b. The City of Brookings adopts this ordinance, in compliance with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). The National Flood Insurance Program (NFIP) is a voluntary program administered by the Federal Emergency Management Agency (FEMA), a component of the U.S. Department of Homeland Security. The City of Brookings has elected to join this program, participate, and enforce this Flood Damage Prevention Ordinance and the requirements and regulations of the NFIP. The NFIP, established in the aforesaid Act, provides that areas of the City of Brookings having a special flood hazard be identified by FEMA, and that floodplain management measures be applied in such flood hazard areas. Furthermore, the City of Brookings may elect to administer the Flood Damage Prevention Ordinance to areas not identified as Special Flood Hazard Areas (SFHAs) by FEMA on the City's Flood Insurance Rate Map (FIRM) if the community has documentation to support that there is an inherent risk of flooding in such areas.

Sec. 38-32. FINDINGS OF FACT

The flood hazard areas of the City of Brookings are subject to periodic inundation by flood waters, which results in potential 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 of the inhabitants of the City of Brookings.

These potential flood losses are caused by:

1. The cumulative effect of obstructions in floodplains that are known to cause increases in flood heights and velocities;

2. The occupancy of flood hazard areas by structures vulnerable to floods because they are inadequately elevated or otherwise unprotected from flood damages; and
3. Uses deemed unsuitable for floodplain areas or that did not account for the increased flood risk.

Sec. 38-33. STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety and general welfare of the City 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 damage to public infrastructure, including but not limited to utilities, streets, and bridges that are susceptible to flooding;
3. Minimize prolonged business interruptions caused by flooding;
4. Minimize public expenditures on flood control projects;
5. Minimize the need for rescue and relief efforts associated with flooding which are generally undertaken at the expense of the public;
6. Protect and safeguard the welfare and safety of first responders should an emergency response be needed;
7. 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
8. Promote notice to potential buyers of properties which are in a flood area.

Sec. 38-34. METHODS OF REDUCING FLOOD LOSSES

To accomplish the purposes outlined in this ordinance, the following methods will apply:

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

DIVISION II- DEFINITIONS

Sec. 38-35. DEFINITIONS

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

100-Year Flood means a flood having a recurrence interval that has a one percent chance of being equaled or exceeded during any given year (one percent annual chance flood). The terms “one hundred year flood” and “one percent annual chance

flood” are synonymous. The term does not imply that the flood will necessarily happen once every one hundred years. Mandatory flood insurance requirements may apply.

100-Year Floodplain means the area of land susceptible to being inundated due to the occurrence of a one percent annual chance flood.

500-Year Flood means a flood having a recurrence interval that has a 0.2 percent chance of being equaled or exceeded during any given year (0.2 percent annual chance flood). The term does not imply that the flood will necessarily happen once every 500 years and mandatory flood insurance requirements generally does not apply.

500-Year Floodplain means the area of land susceptible to being inundated due to the occurrence of a 0.2 percent annual chance flood.

Accessory Structure is a structure that is on the same parcel of property as a principal structure. Its use is incidental to the use of the principal structure and it is owned the ownership by the same owner as of the principal structure. An accessory structure is a non-residential structure of lower value than the principal structure that is used solely for the parking of vehicles and storage of tools, materials, and equipment. No human habitation is allowed within an accessory structure.

Addition is any improvement that expands the enclosed building footprint or increases the square footage of an existing structure. This includes lateral additions added to the side, front or rear of a structure, vertical additions added on top of a structure and enclosures added underneath a structure.

Alluvial Fan Flooding means flooding occurring on the surface of an alluvial fan or similar landform that originates at the apex. It 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.

Appurtenant Structure—see **Accessory Structure**.

Area of Future-Conditions Flood Hazard means the land area that would be inundated by the one percent annual chance (100-year) flood, based on future-conditions hydrology.

Area of Shallow Flooding means a designated AO, AH, AR/AO, or AR/AH zone on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of Special Flood-Related Erosion Hazard is the land within a community that is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-related erosion hazard area, in preparation for publication of the FIRM, Zone E may be further refined.

Area of Special Flood Hazard is the land in the flood plain 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 FHBM. After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, or V1-30, VE, or V. For purposes of these regulations, the term “special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard”.

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

Base Flood Elevation (BFE) is the water surface elevation of the one percent annual chance flood event. It is the height in relation to mean sea level expected to be reached by the waters of the base flood at pertinent points in the floodplains of coastal and riverine areas. It is also the elevation shown on the FIRM and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, or VE that indicates the water surface elevation resulting from the flood that has a one percent chance of equaling or exceeding that level in any given year.

Basement means any area of the building having its floor subgrade (below ground level) on all sides. A walkout basement that does not require a step up to grade is not considered a basement.

Best Available Data is existing flood hazard information adopted by a community and reflected on an effective FIRM, FBFM, FHBM and/or within an FIS report, or draft or preliminary flood hazard information supplied by FEMA or from another source. Other sources may include, but are not limited to, state, other federal agencies, or local studies, the more restrictive of which would be reasonably used by the community.

Breakaway Wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system. Any walls below the lowest floor in a building in a V or VE Zone should give way under wind and water loads without causing collapse, displacement, or other damage to the elevated portion of the building or the supporting pilings or columns. Breakaway walls apply only to V or VE Zones.

Building—see **Structure**.

Channelization means the artificial creation, enlargement, realignment, or alteration of a stream channel's slope, shape, or alignment. Streambank restoration may be deemed to be channelization.

Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government.

Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic and/or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, and/or the SFHA. The letter does not revise an effective map; rather, it indicates whether the project, if built as proposed, would be recognized by FEMA.

Conditional Letter of Map Revision Based on Fill (CLOMR-F) is FEMA's comment on a proposed structure or property. The letter does not revise an effective map; rather, it indicates whether the project, if built as proposed, would be removed from the floodplain.

Crawlspace means an under-floor space that has its interior floor area (finished or not) no more than 4 feet from the bottom floor joist which is the next higher floor elevation, designed with proper openings that equalize hydrostatic pressures of flood water, and is not used for habitation. **See Sec. 38-53(d) CRAWLSPACE**

Critical Facility means a facility or building where even a slight chance of flooding is too great a threat. Typical critical facilities include hospitals, fire stations, police stations, schools, facilities for the storage of critical records, assisted living and similar facilities.

Deed Restriction refers to a clause in a deed that limits the future use of the property in some respect. Deed restrictions may impose a vast variety of limitations and conditions. For example, they may limit the density of buildings, dictate the types of structures that can be erected, or prevent buildings from being used for specific purposes or from being used at all.

Detached Garage is a building that is used solely for storage of materials or vehicle parking for up to four housing occupants. If a detached garage is designed or used for habitation or conducting business, or has multiple stories, then the building is not considered a detached garage under the NFIP.

Development means any human-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, demolition, excavation or drilling operations, or storage, either temporary or permanent, of equipment or materials.

Elevated Building is a non-basement building built, in the case of a building in Zone A1-30, AE, A, A99, AR, AO, AH, B, C, X and D, to have the top of the elevated floor

above the ground level by means of pilings, columns (post and piers), or shear walls parallel to the flow of the water and 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 a building in Zone A1-30, AE, A, A99, AR, AO, AH, B, C, X and D, an “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 flood waters.

Enclosure refers to an enclosed walled-in area below the lowest floor of an elevated building. Enclosures below the BFE may only be used for building access, vehicle parking, and storage.

Erosion means the process of the gradual wearing away of land masses by wind, water, or other natural agents.

Existing Construction refers to 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. It 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 Structures—see **Existing Construction**.

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 manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA means the Federal Emergency Management Agency.

Fill refers to the placement of materials, such as dirt, sand, or rock to elevate a structure, property, or portion of a property above the natural elevation of the site, regardless of where the material was obtained. The common practice of removing unsuitable material and replacing it with engineered material is not considered fill if the elevations are returned to the existing conditions. Any fill placed or used prior to the area being mapped as a flood hazard area is not considered to be fill.

Flood or Flooding means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - a. The overflow of inland or tidal waters.

- b. The unusual and rapid accumulation or runoff of surface waters from any source.
2. Mudslides (i.e., mudflows) that are proximately caused by flooding as defined in this ordinance and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
3. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this ordinance.

Flood Insurance Manual is the document FEMA produces twice a year and is used to write flood insurance policies underwritten by the NFIP. The document contains definitions, policy rates, coverage and limitations, application and insurance policy forms.

Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Administrator has delineated both the SFHAs and the risk premium zones applicable to the community.

Flood Insurance Study (FIS) or Flood Elevation Study means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Floodplain Development Permit is a community issued permit or document that is used for any development that occurs within an SFHA identified by FEMA or the community. It is used to address the proposed development to ensure compliance with the community's ordinance.

Floodplain or Flood-Prone Area means any land area susceptible to being inundated by water from any source whether or not identified by FEMA (see definition of **Flooding**).

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

Floodplain Management Regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any

combination thereof, which provide standards for flood damage prevention and reduction.

Flood Opening refers to an opening in the wall of an enclosed structure that allows floodwaters to automatically enter and exit the enclosure. See FEMA Technical Bulletin 1.

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 area within a community subject to an SFHA and to reduce 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. FEMA only accredits levees, both private and public, that have been certified by a professional engineer or firm in which the certification shows that the levee has met and continues to meet the minimum regulatory standards cited in Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations (44 CFR 65.10).

Floodproofing means any combination of structural and non-structural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents. Floodproofing can either be accomplished in the form of dry floodproofing in which the structure is watertight below the levels that need flood protection, or wet floodproofing in permanent or contingent measures applied to a structure that prevent or provide resistance to damage from flooding, while allowing floodwaters to enter the structure or area.

Floodway—see **Regulatory Floodway**.

Floodway encroachment lines mean the lines marking the limits of floodways on federal, state, and local flood plain maps.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Functionally Dependent Use means a development that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and repair facilities. It does not include long-term storage or related manufacturing facilities.

Highest Adjacent Grade (HAG) means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. In AO Zones, the

highest adjacent grade is utilized by comparing the lowest floor elevation to that of the highest adjacent grade and the depth of the AO Zone.

Historic Structure means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic reservation programs that 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.

Letter of Map Amendment (LOMA) means an official amendment, by letter, to an effective FIRM. A LOMA establishes a property's location in relation to the SFHA. It is usually issued because a property or structure has been inadvertently mapped as being in the floodplain, when the property or structure is actually on natural high ground above the BFE.

Letter of Map Revision (LOMR) means FEMA's modification or revision to an entire or portion of the effective FIRM, or Flood Boundary and Floodway Map, or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA.

Letter of Map Revision Based on Fill (LOMR-F) means FEMA's amendment, by letter, to an effective FIRM, where fill was brought in or used to elevate a property, portion of the property or structure above the BFE.

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

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

Lowest Adjacent Grade (LAG) means the lowest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. For an existing

structure, it means the lowest point where the structure and ground touch, including but not limited to attached garages, decks, stairs, and basement windows.

Lowest Floor means the lowest floor of the lowest enclosed area (including basement). 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 non-elevation design requirements of Section 60 of the NFIP Regulations.

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"; however, a manufactured home may be used for both residential and non-residential use.

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.

Map means the FHBM or the FIRM for a community issued by FEMA.

Mean Sea Level means, for purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which BFEs shown on a community's FIRM are referenced.

Mixed Use Structures are structures with both a business and a residential component, but where the area used for business is less than 50 percent of the total floor area of the structure.

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. 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.

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.

No-Rise Certifications are formal certifications signed and stamped by a professional engineer licensed to practice in the state, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that a

proposed development will not result in any increase (0.00 feet) in flood levels within the community during the occurrence of a base flood event.

Physical Map Revision (PMR) is FEMA's action whereby one or more map panels are physically revised and republished.

Recreational Vehicle means a vehicle which is:

1. Built on a single chassis;
2. 400 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.

Regulatory 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 a designated height.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook or creek, which can be intermittent or perennial.

Section 1316 refers to the section of the National Flood Insurance Act of 1968, as amended, which provides for the denial of flood insurance coverage for any property that the Administrator finds has been declared by a duly constituted State or local authority to be in violation of State or local floodplain management regulations. Section 1316 is issued for a property, not a property owner, and remains with the property even after a change of ownership.

Special Flood Hazard Area—see **Area of Special Flood Hazard**.

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

Structure means, for floodplain management purposes, a walled and roofed building, culvert, bridge, dam, or a gas or liquid storage tank that is principally above ground, as well as a manufactured home. **Structure**, for insurance purposes, means:

1. A building with two or more outside rigid walls and a fully secured roof, which is affixed to a permanent site;
2. A manufactured home ("a manufactured home," also known as a mobile home, is a structure which is built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); or
3. A travel trailer without wheels built on a chassis and affixed to a permanent foundation, that is regulated under the community's floodplain management and building ordinances or laws.

For insurance purposes, "structure" does not mean a recreational vehicle or a park trailer or other similar vehicle, except as described in Section (3) of the definition of structure, or a gas or liquid storage tank.

Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-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. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed.

The term does not, however, include:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and are the minimum necessary to assure safe living conditions; or
2. Any alteration of a "historic structure", if the alteration will not preclude the structure's continued designation as a "historic structure."

Variance means a grant of relief by a community from the terms of a flood plain management regulation. Reference: **See Sec. 35-5050. VARIANCE PROCEDURES**

Violation means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Sections 44 CFR 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

Water Surface Elevation means the height, in relation to the North American Vertical Datum (NAVD) of 1988, (or other datum, where specified) of floods of various

magnitudes and frequencies, such as the one percent annual chance flood event, in the flood plains of coastal or riverine areas.

Watercourse means the channel and banks of an identifiable water in a creek, brook, stream, river, ditch or other similar feature.

DIVISION III GENERAL PROVISIONS

Sec. 38-36. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard identified by FEMA within the City of Brookings.

Sec. 38-37. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled, "The Flood Insurance Study for Brookings County, South Dakota and Incorporated Areas" dated April 23, 2025, accompanying FIRMs, and any Letters of Map Change including Letters of Map Amendment, Letters of Map Revision based on Fill, and Letters of Map Revision, thereto are hereby automatically adopted by reference and declared to be a part of this ordinance.

Sec. 38-38. ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT

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

Sec. 38-39. ABROGATION AND GREATER RESTRICTIONS

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

Sec. 38-40. INTERPRETATION

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

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

Sec. 38-41. WARNING AND DISCLAIMER OR LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions, greater floods can and will occur and flood heights may be increased by human-made or natural causes.

This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This

ordinance shall not create liability on the part of the City or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

Sec. 38-42. 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.

Sec. 38-43. COMPLIANCE

No structures or developments, including buildings, recreation vehicles, or manufactured homes or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance. Nothing herein shall prevent the City of Brookings from taking such lawful action as is necessary to prevent or remedy any violations.

Sec. 38-44. STOP WORK ORDER

1. Authority. Whenever the floodplain administrator or other city official or representative discovers any work or activity regulated by this ordinance being performed in a manner contrary to the provisions of this ordinance, the floodplain administrator is authorized to issue a stop work order.
2. Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.
3. Unlawful continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by city ordinance or State law, including but not limited to the penalties set forth in **Sec. 38-45. PENALTIES FOR NONCOMPLIANCE**.

Sec. 38-45. PENALTIES FOR NONCOMPLIANCE

In accordance with Section 59.2(b) of CFR 44, Chapter 1, of the NFIP regulation, to qualify for the sale of federally subsidized flood insurance, a community must adopt floodplain management regulations that meet or exceed the minimum standards of Section 60 of the NFIP regulations. "These regulations provide that a municipality must adopt effective enforcement provisions." In accordance with Section 60.1(b) of CFR 44, Chapter 1, of the NFIP regulations, these regulations must be legally-enforceable, applied uniformly throughout the community to all privately and publicly owned land within flood-prone (i.e. mudflow) or flood-related erosion areas, and the community must provide that the regulations take precedence over less restrictive conflicting local laws, ordinances, or codes.

Accordingly, no structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards

established in connection with conditions) shall constitute a violation of this chapter. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be subject to a fine as provided by Resolution of the City Council for each violation, which may be assessed daily. In addition, any person who violates this Chapter shall pay all costs and expenses resulting from the violation. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation.

DIVISION IV ADMINISTRATION

Sec. 38-46. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The City of Brookings City Engineer is hereby appointed as the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of the NFIP Regulations and 44 CFR pertaining to floodplain management.

Sec. 38-47. DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

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

1. Uphold the goals of the community and the NFIP to reduce risk when possible and increase the community's resistance to future disasters.
2. Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance, including the actual elevation of the lowest floor (including basement or crawlspace) of all new or substantially improved structures and any floodproofing certificates, including the data supporting such certificates.
3. Maintain and hold open for public inspection maps that identify and locate the boundaries of the SFHAs to which this ordinance applies, including, but not limited to, the FIRM.
4. Review development proposals to determine whether a proposed building site, including sites designed for the placement of manufactured homes, will be reasonably safe from flooding.
5. Review, approve, or deny all applications for development permits required by adoption of this ordinance.
6. Ensure that all necessary permits have been obtained from those federal, state, or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334 and the Endangered Species Act of 1973) from which prior approval is required.
7. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
8. Notify, in riverine situations, adjacent communities and the State Coordinating Agency which is the South Dakota Office of Emergency Management, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to FEMA.
9. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict

between a mapped boundary and actual field conditions), the Floodplain Administrator shall make the necessary interpretation.

10. When BFE data has not been provided by FEMA, the Floodplain Administrator may obtain, review, and reasonably utilize any BFE data and floodway data available from a federal, state, or other source including data provided by the applicant, in order to administer the provisions of this ordinance.
11. When a regulatory floodway has not been designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30, AE, and AH 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 1.00 foot at any point within the city.
 - a. Under the provisions of 44 CFR Chapter 1, Section 65.12 of the NFIP Regulations, a community may approve certain development in Zones A1-30, AE, and AH on the community's FIRM, which increases the water surface elevation of the base flood by more than 1.00 foot, provided that the city first meets the requirements of Section 65.12 for a conditional FIRM revision through FEMA's CLOMR process.
12. If the project is determined or reasonably believed to cause an adverse effect on the BFE(s), boundaries of the floodplain or any insurable structures, technical justification for the proposed development shall be submitted and the community may require a CLOMR or LOMR to be submitted prior to the permit approval or as a requirement of the permit.

Sec. 38-48. REQUIREMENT TO SUBMIT NEW TECHNICAL DATA

1. The property owner or developer shall notify FEMA by submittal of a LOMR within 6 months of project completion when an applicant had obtained a CLOMR from FEMA or when development altered a watercourse, modified floodplain boundaries, or modified BFE.
2. The property owner or developer shall be responsible for preparing technical data to support the CLOMR or LOMR application and paying any processing or application fees to FEMA. The property owner or developer is responsible for submitting the CLOMR and LOMR to FEMA and shall provide all necessary data to FEMA if requested during the review process to ensure the CLOMR or LOMR is issued.
3. The Floodplain Administrator shall be under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this ordinance and all applicable state federal, and local laws.

Sec. 38-49. PERMIT PROCEDURES

Application for a Development Permit shall be presented to the Floodplain Administrator on forms furnished by them and may include, but not be limited to:

1. Duplicated plans drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations.

2. Duplicated plans drawn to scale showing the location, dimensions, and elevation of existing and proposed structures, including the placement of manufactured homes.
3. Location of the foregoing in relation to SFHAs.
4. Elevation (in relation to mean sea level), of the lowest floor (including basement and crawlspace) of all new and substantially improved structures, if applicable;
5. Elevation (in relation to mean sea level), to which any nonresidential structure (if applicable) shall be floodproofed.
6. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure (if applicable) shall meet the floodproofing criteria of this ordinance and the NFIP Regulations.
7. Description of the extent to which any watercourse or natural drainage will be altered or relocated because of proposed development, if applicable.
8. At the city's discretion, the city may charge a fee for issuance of floodplain development permits.
9. Copies of all floodplain development permits and the associated documents shall become property of the city and a permanent record.

Approval or denial of a Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance 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, electrical, and water systems.
7. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at 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. 38-50. VARIANCE AND APPEAL PROCEDURES

1. VARIANCE

- a. An application for a variance must be submitted to the Floodplain Administrator on the form provided by the City of Brookings and include at a minimum the same information required for a development permit and an explanation for the basis for the variance request.
- b. Upon receipt of a completed application for a variance, the variance request will be set for public hearing at the next Board of Adjustment meeting in which time is available for the matter.

- c. Prior to the public hearing, Notice of the hearing will be published in the official newspaper of the City at least 15 days prior to the hearing. In addition to the newspaper publication, written notice shall be provided to all adjoining property owners.
- d. The burden to show that the variance is warranted and meets the criteria set out herein is on the applicant.

2. **CRITERIA FOR VARIANCES**

- a. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a small or irregularly shaped lot contiguous to and surrounded by lots with existing structures constructed below the base flood level. As the lot size increases the technical justification required for issuing the variance increases.
- b. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
- c. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- d. Variances may be issued upon;
 - i. A showing by the applicant of good and sufficient cause;
 - ii. A determination that failure to grant the variance would result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws and ordinances.
- e. Variances pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods.

3. **VARIANCE DECISION**

The decision to either grant or deny a variance shall be in writing and shall set forth the reasons for such approval or denial. If the variance is granted, the property owner shall be put on notice along with the written decision that the permitted building will have its lowest floor below the Flood Protection Elevation and that the cost of flood insurance likely will be commensurate with the increased flood damage risk.

4. **APPEALS**

The Board of Adjustment shall hear and decide appeals from the permit denials and interpretations of the Administrator.

- 1. An appeal must be filed with the Floodplain Administrator within fourteen (14) days of the date of any permit denial or interpretation of the Administrator. Failure to timely file an appeal shall be considered a failure to exhaust the applicant's administrative remedies. The appeal must set out the interpretation of the Administrator and a narrative setting forth the

facts relied upon by the appellant and the appellants claim regarding the error in the interpretation.

2. Upon receipt of a completed appeal, the appeal will be scheduled for the next available Board of Adjustment meeting to be heard. In ruling on an appeal, the Board of Adjustment shall consider all technical evaluations, all relevant factors, and standards specified in other sections of this ordinance, including:
 - a. The danger that materials may be swept onto other lands to the injury of others;
 - b. The danger to life and property due to flooding or erosion damage;
 - c. The susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual landowner;
 - d. The importance of the services provided by the proposed facility to the community;
 - e. The necessity of the facility to a waterfront location, where applicable;
 - f. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - g. The compatibility of the proposed use with existing and anticipated development;
 - h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - i. The safety of access to the property in times of flooding for ordinary and emergency vehicles;
 - j. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
 - k. The cost of providing government services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

5. **DECISION**

The Board of Adjustment's decision on appeal shall be in writing and set out the facts, technical information, and the legal basis for the decision.

Sec. 38-51. PERMIT EXPIRATION

A permit shall expire if the proposed development is not commenced within one year after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. Any permit issued prior to adoption of this ordinance shall expire one year after the adoption of this ordinance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. Extensions must be requested in writing with justifiable cause demonstrated. The Floodplain Administrator may, except otherwise provided herein, extend the time for action by the applicant for a period not exceeding 180 days.

DIVISION V

PROVISIONS FOR FLOOD HAZARD REDUCTION

Sec. 38-52. GENERAL STANDARDS

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

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

(a) SUBSTANTIAL IMPROVEMENT

Any combination of repair, reconstruction, rehabilitation, addition, or improvement of a building or structure, if the cumulative cost of the entire project equals or exceeds 50 percent of the market value of the structure only (not of the structure and land value combined) before the improvement or repair is started then the work shall be considered as substantial improvement. If the structure has sustained substantial damage, any repairs are considered substantial improvements regardless of the actual repair work performed. For Substantial Damage, See **Sec. 38-52 (b) SUBSTANTIAL DAMAGE**. The term does not, however, include either:

1. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions.
2. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

(b) SUBSTANTIAL DAMAGE

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the market value of the structure only before the damage occurred. This term also applies to structures which have incurred any damage that equals or exceeds 50

percent of the structure's market value regardless of the actual repair work performed. When a structure or building has been determined as substantially damaged, any work or repair on said structure or building will be considered as substantial improvement and will be required to meet the development requirements set forth within this ordinance for substantial improvement.

(c) SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE DETERMINATIONS

For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the applicable city officials and staff, shall:

1. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure only, not of land and building, before the start of construction of the proposed work. In the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made.
2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure.
3. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in **Sec. 38-52 (a.) SUBSTANTIAL IMPROVEMENT.**
4. Utilize FEMA's Substantial Improvement/Substantial Damage Desk Reference when making any determination on Substantial Improvement and/or Substantial Damage.
5. The substantial improvement regulations apply to all of the work that is proposed as the improvement, even if multiple permits are issued. Therefore, the determination of the cost of the improvement should consider all costs of all phases of the work before issuance of the first permit.
6. Notify the applicant that if it is determined that the work constitutes substantial improvement or repair of substantial damage, that compliance with the floodplain management ordinance is required.

Sec. 38-53 SPECIFIC STANDARDS

In all SFHAs the following provisions are required:

(a). RESIDENTIAL CONSTRUCTION

New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to the BFE, unless a freeboard option is noted below. If a freeboard option is noted, new construction and substantial improvement shall have the lowest floor (including basement) elevated to the freeboard elevation. A registered professional engineer, architect, or land surveyor shall submit

certified elevations to the Floodplain Administrator that the standards of this ordinance are satisfied.

In AO/AH Zones, new and substantially improved residential structures must have their lowest floor (including basement) above the highest adjacent grade at least one foot above the FIRM's depth number (at least three feet if no depth number is specified). In AO/AH Zones, adequate drainage paths around structures on slopes are required to guide flood waters away from proposed structures.

(a).1. RESIDENTIAL CONSTRUCTION FREEBOARD

The City of Brookings has elected to adopt a freeboard option for new construction and substantial improvement of any residential structure. The freeboard option requires that lowest floor elevation to be built above the BFE by the height selected. The City of Brookings has elected the following freeboard requirement:

1. Two feet of freeboard, meaning the lowest floor must be built two feet above the BFE.

(b) NONRESIDENTIAL CONSTRUCTION

New construction and substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including basement) elevated to the base flood level, unless a freeboard option is noted below, 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 the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification that includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator. If the use or occupancy of the building changes in the future to residential, then the dry floodproofing of the structure cannot be used when determining compliance of the structure to the residential construction of this ordinance, See **Sec. 35-53 (a) RESIDENTIAL CONSTRUCTION** and **Sec. 38-52 (a).1 RESIDENTIAL CONSTRUCTION FREEBOARD**. As such, the building will not be grandfathered into compliance and will be required to be brought into compliance with the residential construction requirements of this ordinance.

In AO/AH Zones, new and substantially improved non-residential structures must have their lowest floor (including basement) above the highest adjacent grade at least one foot above the FIRM's depth number (at least three feet if no depth number is specified). In AO/AH Zones, adequate drainage paths around structures on slopes are required to guide flood waters away from proposed structures.

(b).2 NONRESIDENTIAL CONSTRUCTION FREEBOARD

The City of Brookings has elected to adopt a freeboard option for new construction and the substantial improvement of any nonresidential structure. The freeboard option

requires that lowest floor elevation to be built above the BFE by the height selected. The City of Brookings has elected a: Two feet of freeboard meaning the lowest floor must be built Two feet above the BFE.

(c) ENCLOSURES

New construction and substantial improvements, with fully enclosed areas below the lowest floor that are to be used solely for parking of vehicles, building access, or storage in an area other than a basement, and 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 must meet or exceed the following minimum criteria:

1. 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.
2. The bottom of all openings shall be no higher than one foot above grade.
3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

The development and construction of the structure must conform with the provision in FEMA/Federal Insurance Administration (FIA)-Technical Bulletins 1 and 2. Certification and documentation from a professional, licensed engineer or architect is required if the structure's lowest floor is built below the BFE.

(d) CRAWLSPACE

New construction and substantial improvements built on a crawlspace or sub-grade (below grade) crawlspace may be permitted if the development is designed and meets or exceeds the standards found in FEMA's Technical Bulletins 1, 2, and 11, which include but are not limited to the following:

1. The structure must be affixed to a permanent foundation, designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than five feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer.
2. The crawlspace is an enclosed area below the BFE and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one foot above the LAG.
3. The crawlspace enclosure must have proper openings that allow equalization of hydrostatic pressure by allowing automatic entry and exit of floodwaters. To achieve this, a minimum of one square inch of flood opening is required per one square foot of the enclosed area subject to flooding.
4. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, piers, or other materials that extend below the BFE. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.

5. Any building utility systems within the crawlspace must be elevated above the BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions.
6. The interior grade of a crawlspace below the BFE must not be more than two feet below the LAG.
7. The height of the below-grade crawlspace, measured from the lowest interior grade of the crawlspace floor to the bottom of the floor joist of the next higher floor cannot exceed four feet at any point.
8. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event.
9. Buildings with below-grade crawlspaces will have higher flood insurance premiums than buildings that have the preferred crawlspace construction, with the interior elevation at or above the LAG.

(e) MANUFACTURED HOMES

1. Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.
2. Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites outside of a manufactured home park or subdivision; in a new manufactured home park or subdivision; in an expansion to an existing manufactured home park or subdivision; or in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated at least two feet above the BFE, and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
3. In A-1-30, AH, AO and AE Zones, require that manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that the lowest floor is at least as high as the BFE; or the chassis is supported by reinforced piers no less than 36 inches in height above grade and securely anchored.

(f) RECREATIONAL VEHICLES

Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either:

1. Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use;
 - a. 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.

2. Or meet the permit requirements of **Sec. 38-49, PERMIT PROCEDURES**, and the elevation and anchoring requirements for "manufactured homes" of this section.

(g) COMPENSATORY STORAGE

Unless otherwise provided in this ordinance, 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 the base flood level in the floodplain.

1. Compensatory storage requirements
 - a. All required compensatory storage shall be located at a hydraulically connected site within the same drainage basin as demonstrated by the applicant on a plan prepared by an engineer licensed in the State of South Dakota. Compensatory storage shall be provided on the property that is being altered or on a parcel of common ownership that is part of a larger plan of development.
 - b. 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 is not counted for purposes of satisfying the compensatory storage requirement.
2. Exemptions. The following development projects are not required to meet the compensatory storage requirement unless specifically required by the floodplain administrator after review of the initial floodplain development permit application:
 - a. Platted and constructed single family residences existing prior to the adoption of this ordinance.
 - b. Minor projects clearly having negligible impact, such as street/parking lot resurfacing/rehabilitation, minor improvements to residential structures, 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 which do not inhibit the free flow of water.
 - c. Flood protection of buildings for floodplain volume displaced by building footprints that existed prior to the adoption of this ordinance and which is within ten feet of said building.

Sec. 38-54. STANDARDS FOR SUBDIVISION PROPOSALS

1. All subdivision proposals, including the placement of manufactured home parks, and subdivisions shall be consistent with the provisions of this ordinance.
2. All subdivision proposals, including the placement of manufactured home parks, and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

3. All proposals for the development of subdivisions, including the placement of manufactured home parks, and subdivisions shall meet Development Permit requirements of this ordinance.
4. BFE data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions, which is greater than 50 lots or 5 acres, or whichever is lesser.
5. All subdivision proposals including the placement of manufactured home parks and subdivisions shall minimize flood damage.
6. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

Sec. 38-55. FLOODWAYS

Floodways located within SFHAs are extremely hazardous areas due to the velocity of flood waters that carry debris, potential projectiles, and erosion potential, the following provisions shall apply:

1. Designate a regulatory floodway that will not increase the base flood level more than one foot.
2. Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway *unless* it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase greater than 0.00 feet in flood levels within the community during the occurrence of the base flood discharge.
3. All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V in this ordinance.
4. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the NFIP Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in BFEs, provided that the community first applies for a conditional LOMR and floodway revision through FEMA.

II.

Any or all ordinances in conflict herewith are hereby repealed.

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 SECOND READING: March 25, 2025
 PUBLISHED: March 28, 2025

CITY OF BROOKINGS, SD

 Oepke G. Niemeyer, Mayor

ATTEST:

Bonnie Foster, City Clerk