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**CITY FLOOD DAMAGE PREVENTION**

**CHAPTER 151: FLOOD DAMAGE PREVENTION**

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**PURPOSE AND JURISDICTION****151.001 PURPOSE AND REPEAL OF ORDINANCES:**

The ordinance codified herein is an ordinance regulating flood damage prevention within the municipal limits of the City. The Common Council of the City of Box Elder has deemed these regulations and controls to be reasonable and reasonably related to the needs of the residents of Box Elder and the surrounding area. Therefore, to eliminate conflict with these regulations, Ordinance No. 533 of the Box Elder Municipal Code are hereby repealed in its entirety.

**151.002 JURISDICTION:**

This Chapter shall govern all territory within the statutory jurisdiction of the City of Box Elder, South Dakota for the purpose of promoting the health, safety, and general welfare of the community. The City has elected to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). The National Flood Insurance Program (NFIP), established in the aforesaid act, provides that areas of the City having a special flood hazard be identified by the Federal Emergency Management Agency (FEMA) and that floodplain management measures be applied by the City in such areas of special flood hazard.

**151.003 FINDINGS OF FACT:**

- (A) The areas of special flood hazard within the City's statutory jurisdiction are subject to periodic inundation which has resulted in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which have adversely affected the public health, safety and general welfare.
- (B) These flood losses were created by the cumulative effect of added impervious surface areas in contributing watersheds and of obstructions in areas of special flood hazard which caused an increase in flood heights and velocities, and by the occupancy of areas of special flood hazard by uses vulnerable to floods and thus hazardous to other lands because they were inadequately elevated, flood-proofed, or otherwise protected from flood damage.

**151.004 FURTHER STATEMENT OF PURPOSE:**

The purpose of this chapter is to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in areas of special flood hazard by regulations designed to:

- (A) Protect human life and health, safety and welfare;

- (B) Minimize expenditure of public money for costly flood-control projects;
- (C) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (D) Minimize prolonged business interruptions;
- (E) Minimize damage to public facilities and utilities such as water, sewer, and gas mains, electric and telephone lines, and streets and bridges located in areas of special flood hazard;
- (F) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future blight due to floods; and
- (G) Ensure that potential buyers are notified that property is in an area of special flood hazard.

**151.005 POLICIES FOR REDUCING FLOOD LOSSES:**

The Common Council hereby adopts the following methods in order to accomplish the above purposes:

- (A) Restrict or prohibit land uses that are dangerous to health, safety, or property in times of flood, or that cause excessive increases in flood heights or velocities;
- (B) Require that land uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of their initial construction;
- (C) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- (D) Control filling, grading, dredging, and other development activities which may result in increased flood damage; and
- (E) Prevent or regulate the construction of flood barriers which will divert floodwaters onto, or which may increase flood hazards to, other lands.

**151.006 SEVERABILITY AND SEPARABILITY:**

Should any Chapter, Article, Section, Subsection, or Provision of this Ordinance be found to be or declared invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity or constitutionality of the Ordinance as a whole or any part thereof, other than the portion so declared to be invalid or unconstitutional.

## DEFINITIONS

### 151.015 DEFINITIONS:

For the purpose of this chapter, the following definitions shall apply unless the context indicates or requires a different meaning. Words used in the present tense shall include the future tense; words in the singular number include the plural; words in the plural number include the singular; the word person includes a firm, partnership, or corporation as well as an individual; the term shall is always mandatory and not discretionary; and the word may is permissive. The terms used or occupied as applied to any land or building shall be construed to include the terms intended, arranged, or designed to be used or occupied.

**ACT:** The National Flood Insurance Act of 1968 and any amendments ~~thereto~~.

**ANCHORED:** Adequately secured to prevent flotation, collapse or lateral movement.

**APPURTENANT STRUCTURE:** A detached garage servicing a 1-4 family dwelling.

**AREA OF SPECIAL FLOOD HAZARD:** Land subject to a 1% or greater chance of flooding in any given year. For the purposes of chapter, the term special flood hazard area is synonymous in meaning with the term area of special flood hazard.

**BASE FLOOD:** The flood having a 1% chance of being equaled or exceeded in any given year.

**BASE FLOOD DEPTH (BFD):** The depth shown on the Flood Insurance Rate Map (FIRM) for Zone AO that indicates the depth of water above highest adjacent grade resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year.

**BASE FLOOD ELEVATION (BFE):** The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1– A30, AR/AH, AR/AO, V1–V30 and VE.

**BASEMENT:** Any area of the building, including any sunken room or sunken portion of a room, having its floor below ground level (subgrade) on all sides.

**BREAKAWAY WALL:** A wall that is not part of the structural support of a 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 to the building's supporting foundation system.

**BUILDING:**

- A structure with 2 or more outside rigid walls and a fully secured roof, that is affixed to a permanent site; or
- A manufactured home (a "manufactured home," also known as a mobile home, is a structure built on a permanent chassis, transported to its site in 1 or more sections and affixed to a permanent foundation); or

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- 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.

"Building" does not mean a gas or liquid storage tank or a recreational vehicle, park trailer or other similar vehicle, except as described above.

**BUILDING IN THE COURSE OF CONSTRUCTION:** A walled and roofed building (see the General Rules section for exception) that is principally above ground and affixed to a permanent site. It does not include building materials or supplies intended for use in construction, alteration, or repair unless such materials or supplies are within an enclosed building on the premises.

**BUSINESS BUILDING:** A building in which the named insured is a licensed commercial enterprise carried out to generate income and the coverage is for:

1. A building designed as a non-habitational building;
2. A mixed-use building in which the total floor area devoted to residential uses is
  - a. 50% or less of the total floor area within the building if the residential building is a single family property; or
  - b. 75% or less of the total floor area within the building for all other residential properties; or
3. A building designed for use as office or retail space, wholesale space, hospitality space, or for similar uses.

**BUSINESS PROPERTY:** Either a business building or the contents within a business building, or both.

**CERTIFICATION:** A certification by a registered professional engineer or other party does not constitute a warranty or guarantee of performance, expressed or implied. Certification of data is a statement that the data is accurate to the best of the certifier's knowledge. Certification of analysis is a statement that the analysis have been performed correctly and in accordance with sound engineering practices. Certification of structural works is a statement that the works are designed in accordance with sound engineering practices to provide protection from the base flood. Certification of "as built" conditions is a statement that the structure(s) has been built according to the plans being certified, is in place, and is fully functioning.

**CISTERN:** Covered cisterns and the water in them are defined as an integral part of an insurable building, meaning under the building or above ground and physically attached to a side of the building with one (1) of the walls of the building and cistern being common to each other.

**CITY:** The City of Box Elder, South Dakota.

**CLOMR:** A Conditional Letter of Map Revision.

**COMMISSION:** The Planning and Zoning Commission of the City of Box Elder.

**COMMUNITY:** A political entity that has the authority to adopt and enforce floodplain ordinances for the area under its jurisdiction.

**COUNCIL:** The Common Council of the City of Box Elder.

**CRAWLSPACE:** An under-floor space that has its interior floor area (finished or not) no more than 5 feet below the top of the next-higher floor. Crawlspace generally have solid foundation walls. See Diagram 8 in the Elevation Certificate Instructions.

**CRITICAL FACILITY:** A structure or other improvement that, because of its function, size, service area, or uniqueness, has the potential to cause serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if it is destroyed or damaged or if its functionality is impaired. Critical facilities include health and safety facilities, utilities, government facilities and hazardous materials facilities as determined by the City Council.

**DOUBLEWIDE MANUFACTURED (MOBILE) HOME:** A manufactured (mobile) home that, when assembled as a non-movable, permanent building, is at least 16 feet wide and has an area within its perimeter walls of at least 600 square feet.

**DEVELOPMENT:** 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, drilling operations, or storage of equipment or materials.

**DWELLING:** A building designed for use as a residence for no more than 4 families or a single-family unit in a building under the condominium form of ownership.

**ELEVATED BUILDING:** A building that has no basement and that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns. Solid (perimeter) foundations walls are not an acceptable means of elevating buildings in V and VE zones.

**ENCLOSURE:** Enclosures are enclosed walled in areas below the lowest floor of an elevated building. Enclosures below the Base Flood Elevation (BFE) may only be used for building access, vehicle parking, and storage. Enclosed areas below the lowest floor must be adequately anchored, built using flood resistant building material, and any utilities or service facilities must be designed and/or located to prevent flood damage. Flood insurance coverage for enclosures below the BFE is very limited.

In A Zones, fully enclosed areas below the lowest floor must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing the entry and exit of floodwaters. Designs must meet certain minimum criteria for openings in the enclosure walls or be certified by a registered design professional.

In V Zones, the space below the lowest floor of a building shall be free of obstruction or constructed with non-supporting breakaway walls, open wood lattice work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. Designs to meet this criteria must be certified by a registered design professional or meet certain minimum criteria for breakaway walls.

**EROSION:** The collapse, undermining or subsidence of land along the shore of a lake or other body of water. Erosion is a covered peril if it is caused by waves or currents of water exceeding their cyclical levels which result in flooding.

**EXISTING CONSTRUCTION:** For the purposes of this chapter, structures for which the start of construction commenced before Ordinance No. 115 became effective in July, 1980. Existing construction may also be referred to as existing structures.

**EXISTING MOBILE HOME PARK:** A mobile home park for which the construction of facilities for servicing the lots on which the factory-built 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) was completed before January 1, 2016.



**EXPANSION OF AN EXISTING MOBILE HOME PARK:** The preparation of additional sites for an existing mobile home park by the construction of facilities for servicing the lots on which the factory-built 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).

**FACTORY-BUILT HOMES:** Structures built off-site and designed for long-term, single-family residential use. For the purpose of these regulations, factory-built homes consist of three types: manufactured homes, mobile homes, and modular homes.

**FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)** The federal agency under which the National Flood Insurance Program (NFIP) is administered. In March 2003, FEMA became part of the newly created U.S. Department of Homeland Security.

**FHBM:** Flood Hazard Boundary Map.

**FINISHED (HABITABLE) AREA:** An enclosed area having more than 20 linear feet of finished interior walls (paneling, etc.) or used for any purpose other than solely for parking of vehicles, building access or storage.

**FIRM:** Flood Insurance Rate Map.

**FLOOD/FLOODING:**

- A general and temporary condition of partial or complete inundation of 2 or more acres of normally dry land area or of 2 or more properties (at least 1 of which is the policyholder's property) from:
  - Overflow of inland or tidal waters; or
  - Unusual and rapid accumulation or runoff of surface waters from any source; or
  - Mudflow; or

- Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.

**FLOOD HAZARD BOUNDARY MAP (FHBM):** Official map of a community issued by FEMA, where the boundaries of the flood, mudflow and related erosion areas having special hazards have been designated.

**FLOOD INSURANCE RATE MAP (FIRM)** Official map of a community on which FEMA has delineated the Special Flood Hazard Areas (SFHAs), the Base Flood Elevations (BFEs) and the risk premium zones applicable to the community.

**FLOOD INSURANCE STUDY/FLOOD ELEVATION STUDY:** An examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards under the direction of FEMA.

**FLOODPLAIN:** Any land area susceptible to being inundated by floodwaters from any source.

**FLOODPLAIN MANAGEMENT:** 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 and floodplain management regulations.

**FLOODPLAIN:** Any land area susceptible to being inundated by floodwaters from any source.

**FLOODPLAIN MANAGEMENT:** 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, and floodplain management regulations.

**FLOOD-PROOFING:** Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents and for which a "FEMA flood-proofing certificate" is issued and stamped by licensed design professional.

The National Flood Insurance Program (NFIP) allows a new or substantially improved non-residential building in an A Zone (Zone A, AE, A1-30, AR, AO or AH) to have a lowest floor below the Base Flood Elevation (BFE), provided that the design and methods of construction have been certified by a registered professional engineer or architect as being dry floodproofed in accordance with established criteria.

Flood-proofing of areas below the BFE in residential buildings is not permitted under the NFIP exception communities that have been granted an exception to permit flood-proofed basements. Flood-proofing is not permitted in Coastal High Hazard Areas (Zone V, VE, or V1-30). It is recommended that flood-proofing be implemented up to one foot above BFE for a factor of safety and to receive full credit for flood insurance rating.

Limited enclosed areas below BFE within newly constructed and substantially improved residential and non-residential structures may be permitted provide that they are wet flood-proofing. See Enclosure. Certain other categories of structures may be allowed to be wet flood-proofed if a variance is issued and other requirements are met. See Agricultural Building and Accessory Building.

**FLOODWAY:** A "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. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. For streams and other watercourses where FEMA has provided Base Flood Elevations (BFEs), but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

**FOUNDATION WALLS:** Masonry walls, poured concrete walls or precast concrete walls, regardless of height, that extend above grade and support the weight of a building.

**FREEBOARD:** An additional amount of height above the Base Flood Elevation used as a factor of safety (e.g., 2 feet above the Base Flood) in determining the level at which a structure's lowest floor must be elevated or flood-proofed to be in accordance with state or community floodplain management regulations.

**GRADE ELEVATION:** The lowest or highest finished ground level that is immediately adjacent to the walls of the building. Use natural (pre-construction), ground level, if available, for Zone AO and Zone A (without BFE).

**GRANDFATHERING:** An exemption based on circumstances previously existing.

- Under NFIP statutory grandfathering, buildings located in Emergency Program communities and Pre-FIRM buildings in the Regular Program are eligible for subsidized flood insurance rates.
- Under NFIP administrative grandfathering, Post-FIRM buildings in the Regular Program built in compliance with the floodplain management regulations in effect at the start of construction will continue to have favorable rate treatment even though higher Base Flood Elevations (BFEs) or more restrictive, greater risk zone designations result from Flood Insurance Rate Map (FIRM) revisions. Policyholders who have remained loyal customers of the NFIP by maintaining continuous coverage (since coverage was first obtained on the building) are also eligible for administrative grandfathering.

**HIGH-RISE BUILDING:** High-rise condominium buildings have 5 or more units and at least 3 floors excluding enclosure even if it is the lowest floor for rating purposes. An enclosure below an elevated building, even if it is the lowest floor for rating purposes, cannot be counted as a floor to avoid classifying the building as low rise. Under the NFIP, townhouses/row-houses are not considered high-rise buildings, regardless of the number of floors.

**HIS:** For the purpose of this chapter, traditionally, the masculine singular pronouns he, his, and him are used generically to refer to indefinite pronouns like anyone, everyone, and someone and to singular nouns that can be applied to either sex.

**HISTORIC STRUCTURE.** Any structure that is:

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

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

**IMPROVEMENTS AND BETTERMENTS:** Fixtures, alterations, installations or additions made or acquired solely at a tenant's expense and comprising part of an insured building.

**INCREASED COST OF COMPLIANCE: (ICC).** Coverage for expenses that a property owner must incur, above and beyond the cost to repair the physical damage the building actually sustained from a flooding event, to comply with mitigation requirements of state or local floodplain management ordinances or laws. Acceptable mitigation measures are elevation, floodproofing, relocation, demolition, or any combination thereof.

**LETTER OF DETERMINATION REVIEW: (LODR).** FEMA's ruling on the determination made by a lender or third party that a borrower's building is in a Special Flood Hazard Area (SFHA). A LODR deals only with the location of a building relative to the SFHA boundary shown on the Flood Insurance Rate Map (FIRM).

**LETTER OF MAP AMENDMENT (LOMA)**--An amendment to the currently effective FEMA map which establishes that a property is not located in a Special Flood Hazard Area (SFHA). A LOMA is issued only by FEMA.

**LETTER OF MAP REVISION (LOMR)**--An official amendment to the currently effective FEMA map. It is issued by FEMA and changes flood zones, delineations and elevations.

**LOWEST ADJACENT GRADE:** The lowest point of the ground level immediately next to a building.

**LOWEST FLOOR.** The lowest floor of the lowest enclosed area (including a 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 requirements.

**LOWEST FLOOR ELEVATION (LFE)**--The measured distance of a building's lowest floor above the National Geodetic Vertical Datum (NGVD) or other datum specified on the FIRM for that location.

**LOW-RISE BUILDING:** Low-rise condominium buildings have fewer than 5 units regardless of the number of floors or 5 or more units with fewer than 3 floors including basement. All townhouses/row-houses, regardless of the number of floors or units, and all single-family detached condominium buildings are classified as low rise. An enclosure below an elevated building, even if it is the lowest floor for rating purposes, cannot be counted as a floor to avoid classifying the building as low rise.

**MANUFACTURED HOME.** A structure built on a permanent chassis, transported to its site in 1 or more sections and affixed to a permanent foundation. "Manufactured (mobile) home" does not include recreational vehicles.

**MANUFACTURED (Mobile) HOME PARK or SUBDIVISION, EXISTING:** A manufactured (mobile) home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured (mobile) 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 before December 31, 1974 or before the effective date of the community's initial Flood Insurance Rate Map (FIRM), whichever is later.

**MANUFACTURED (Mobile) HOME PARK or SUBDIVISION, EXPANSION TO EXISTING SITE:** The preparation of additional sites by the construction of facilities for servicing the lots on which manufactured (mobile) 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).

**MANUFACTURED (Mobile) HOME PARK or SUBDIVISION, NEW:** A manufactured (mobile) home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured (mobile) 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 after December 31, 1974, or on or after the effective date of the community's initial Flood Insurance Rate Map (FIRM), whichever is later.

**MAP REVISION:** A change in the Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) for a community which reflects revised zone, base flood or other information.

**MASONRY WALLS:** Walls constructed of individual components laid in and bound together with mortar. These components can be brick, stone, concrete block, etc.

**MEAN SEA LEVEL:** For the purposes of this Ordinance, the National Geodetic Vertical Datum (NGVD) of 1929, 1988, or other datum, to which base flood elevations shown on the City's adopted FIRM are referenced.

**MOBILE HOME:** A factory-built, single-family dwelling, designed to be a permanent residence, and built prior to enactment of the 1976 Federal Manufactured Home Construction and Safety Standards Act (42 U.S.C. 5401), commonly known as the HUD (U.S. Department of Housing and Urban Development) Code. Mobile homes typically are not placed on a permanent foundation or basement and consist of one or two transportable sections that have a permanently attached towing hitch and chassis.

**MOBILE HOME PARK (MHP):** A site containing three or more spaces with required improvements and utilities that are leased for the long-term placement of factory-built homes, recreational vehicles, or travel trailers.

**MODULAR HOME:** A building that is usually transported to its site on a steel frame or special trailer because it does not have a permanent chassis like a manufactured (mobile) home. A modular building is classified and rated under 1 of the other building types.

Shall also be known as a factory-built, single-family dwelling, designed to be a permanent residence that meets state and City building codes. Modular homes typically

are placed on a permanent foundation or basement and consist of one or more transportable sections that do not have a permanently attached towing hitch and chassis. For the purposes of this Ordinance, single-family, site-built homes that were constructed elsewhere, and are now being moved to a different parcel within the city are considered to be modular homes.

**MULTI-FAMILY BUILDING:** Any other Residential Building, that is not a condominium building.

**NATIONAL FLOOD INSURANCE PROGRAM (NFIP):** The program of flood insurance coverage and floodplain management administered under the Act and applicable federal regulations promulgated in Title 44 of the Code of Federal Regulations, Subchapter B.

**NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929:** National standard reference datum for elevations, formerly referred to as Mean Sea Level (MSL) of 1929. NGVD 1929 may be used as the reference datum on some Flood Insurance Rate Maps (FIRMs).

**NATURAL GRADE:** The grade unaffected by construction techniques such as fill, landscaping or berming.

**NEW CONSTRUCTION.** Buildings for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map (FIRM) or after December 31, 1974, whichever is later, including any subsequent improvements.

**NATIONAL FLOOD INSURANCE PROGRAM (NFIP) (Community #460089):**

**NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988:** The vertical control datum established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988. It replaces the National Geodetic Vertical Datum (NGVD) of 1929.

**NON-RESIDENTIAL BUILDING (including hotel/motel):** This is a commercial or non-habitational building or a mixed-use building that does not qualify as a residential building. This category includes but is not limited to: small businesses, churches, schools, farm buildings (including grain bins and silos), garages, pool houses, clubhouses, recreational buildings, mercantile buildings, agricultural and industrial buildings, warehouses, nursing homes, licensed bed and breakfasts and hotels and motels with normal room rentals for less than 6 months.

**NO-RISE CERTIFICATE:** Any project in a floodway must be reviewed to determine if the project will increase flood heights. An engineering analysis must be conducted before a permit can be issued. The community's permit file must have a record of the results of this analysis, which can be in the form of a No-rise Certification. This No-rise Certification must be supported by technical data and signed by a registered professional engineer. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM).

**NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.** The vertical control datum established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988. It replaces the National Geodetic Vertical Datum (NGVD) of 1929.

**OTHER NON-RESIDENTIAL BUILDING:** This is a subcategory of nonresidential buildings; a non-habitational building that does not qualify as a business building or residential building.

**OTHER RESIDENTIAL BUILDING:** This is a residential building that contains more than 4 apartments/units. This category includes condominium and apartment buildings as well as hotels, motels, tourist homes and rooming houses where the normal occupancy of a guest is 6 months or more. These buildings are permitted incidental occupancies. The total area of incidental occupancy is limited to less than 25% of the total floor area within the building. Examples of Other Residential buildings include dormitories and assisted-living facilities.

**OTHERWISE PROTECTED AREAS (OPAs):** Areas established under federal, state or local law or held by a qualified organization, primarily for wildlife refuge, sanctuary, recreational or natural resource conservation purposes. The only federal spending prohibition within OPAs is federal flood insurance.

**OUT-AS-SHOWN DETERMINATION:** An alternative outcome of the FEMA letter of Map Amendment (LOMA) review process stating that a specific property is located outside the Special Flood Hazard Area (SFHA) as indicated on the Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM).

**PARTICIPATING COMMUNITY:** A community for which FEMA has authorized the sale of flood insurance under the NFIP.

**POLLUTANTS:** Substances that include, but are not limited to, any solid, liquid, gaseous, or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, and waste. "Waste" includes, but is not limited to, materials to be recycled, reconditioned, or reclaimed.

**PONDING HAZARD:** A flood hazard that occurs in flat areas when there are depressions in the ground that collect "ponds" of water. The ponding hazard is represented by the zone designation AH on the Flood Insurance Rate Map (FIRM).

**POST-(FIRM) BUILDING:** a building for which construction or substantial improvement occurred after December 31, 1974 or on or after the effective date of an initial Flood Insurance Rate Map (FIRM), whichever is later.

**PRE-(FIRM) BUILDING:** A building for which construction or substantial improvement occurred on or before December 31, 1974 or before the effective date of an initial Flood Insurance Rate Map (FIRM).

**PROPER OPENINGS- ENCLOSURES (Applicable to Zones A, A1-A30, AE, AO, AH, AR and AR Dual):** All enclosures below the lowest elevated floor must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. A minimum of 2 openings, with positioning on at least 2 walls, having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding must be provided. The bottom of all openings must be no higher than 1 foot above the higher of the exterior or interior (adjacent) or floor immediately below the openings.

**RECREATIONAL VEHICLE: (FEMA Definition)**

A vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable by a light duty truck;  
and
- (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

A recreational vehicle placed on a site in a Special Flood Hazard Area (SFHA) must meet the elevation and anchoring requirements for manufactured homes, unless it:

- (1) Is on the site for fewer than 180 consecutive days, or
- (2) Is fully licensed and ready for highway use.

Ready for highway use means that it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and has no permanently attached additions.

**REPLACEMENT COST VALUE (RCV).** The cost to replace property with the same kind of material and construction without deduction for depreciation.

**RESIDENTIAL BUILDING:** A non-commercial building designed for habitation by one or more families or a mixed-use building that qualifies as a single-family, 2–4 family, or other residential building.

**RESIDENTIAL CONDOMINIUM BUILDING:** A building, owned and administered as a condominium, containing 1 or more family units and in which at least 75% of the floor area is residential.

**SDDENR.** The South Dakota Department of Environment and Natural Resources.

**SDOEM.** The South Dakota Office of Emergency Management.

**SECTION 1316:** Section of the National Flood Insurance Act of 1968, as amended, which states that no new flood insurance coverage shall be provided for any property that FEMA finds has been declared by a duly constituted state or local zoning authority or other authorized public body to be in violation of state or local laws, regulations or ordinances that are intended to discourage or otherwise restrict land development or occupancy in flood-prone areas.

**SHEAR WALLS:** Walls used for structural support but not structurally joined or enclosed at the ends (except by breakaway walls). Shear walls are parallel or nearly parallel, to the flow of the water and can be used in any flood zone.

**SHEET FLOW HAZARD:** A type of flood hazard with flooding depths of 1 to 3 feet that occurs in areas of sloping land. The sheet flow hazard is represented by the zone designation AO on the FIRM.

**SINGLE BUILDING:** A building that is separated from other buildings by intervening clear space or solid, vertical, load-bearing division walls.



**SINGLE-FAMILY RESIDENCE: (Either)**

1. This is a residential single-family building or a single-family dwelling unit in a condominium building; incidental occupancies are permitted if limited to less than 50% of the building's total floor area. Incidental occupancies are offices, private schools, studios or small service operations within a residential building.
2. A single-family residential unit within a 2–4 family building, other-residential building, business, or non-residential building, in which commercial uses within the unit are limited to less than 50% of the unit's total floor area.

**SOLID (PERIMETER) FOUNDATION WALLS:** Walls that are used as a means of elevating a building in A Zones and that must contain sufficient openings to allow for the unimpeded flow of floodwaters more than 1 foot deep.

**SPECIAL FLOOD HAZARD AREA (SFHA):** An area having special flood, mudflow or flood-related erosion hazards and shown on a Flood Hazard Boundary Map (FHBM) or a Flood Insurance Rate Map (FIRM) Zone A, AO, A1-A30, AE, A99, AH, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1-A30, V1-V30, VE or V. For the purpose of determining Community Rating System (CRS) premium discounts, all AR and A99 zones are treated as non-SFHAs.

**SPLIT LEVEL:** A foundation with a vertical offset in the floor framing on either side of a common wall.

**START OF CONSTRUCTION.** For other than new construction or substantial improvements, under the Coastal Barrier Resources Act (CBRA), this is the date the building permit was issued, provided that the actual start of construction, repair, 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 building on site, such as the pouring of a slab or footing, the installation of piles, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured (mobile) home on a foundation. For a substantial improvement, 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.

**STOCK:** Merchandise held in storage or for sale, raw materials and in-process or finished goods, including supplies used in their packing or shipping. "Stock" does not include any property not covered under "Section IV. Property not Covered" of the General Property Form, except the following:

- Parts and equipment for self-propelled vehicles;
- Furnishings and equipment for watercraft;
- Spas and hot-tubs, including their equipment; and
- Swimming pool equipment.

**STRUCTURE.** For the purposes of this chapter, a walled and roofed building, including a factory-built home or a gas or liquid storage tank, that is principally above ground.

**SUBGRADE CRAWLSPACE:** A crawlspace foundation where the subgrade under-floor area is no more than 5 feet below the top of the next-higher floor and no more than 2 feet below the lowest adjacent grade on all sides.

**SUBSTANTIAL DAMAGE:** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty (50%) percent of the market value of the structure before the damage occurred.

**SUBSTANTIALLY IMPROVED BUILDING:** A building that has undergone reconstruction, rehabilitation, addition, or other improvement, the cost of which equals or exceeds fifty (50%) percent of the market value of the building before the “start of construction” of the improvement. This term does not include a building that has undergone reconstruction, rehabilitation, addition, or other improvement related to:

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

**SUBSTANTIALLY IMPROVED PROPERTY:** Either a substantially improved building or the contents within a substantially improved building, or both.

**TRAVEL TRAILER:** Under the NFIP, a travel trailer can be considered a building only if it is without wheels, built on a chassis and affixed to a permanent foundation and regulated under the community’s floodplain management and building ordinances or laws.

**2 to 4 FAMILY RESIDENCE:** This is a residential building that contains 2-4 units. This category includes apartment buildings and condominium buildings. Incidental occupancies are permitted if the total area of such occupancies is limited to less than twenty-five (25%) percent of the total floor area within the building. This excludes hotels and motels with normal room rentals for less than 6 months.

**UNDERGROUND BUILDING:** A building for which fifty (50%) percent or more of the Actual Cash Value (ACV), including machinery and equipment that are part of the building, is below ground.

**UNFINISHED AREA:** An enclosed area that is used only for the parking of vehicles, building access or storage purposes and that does not meet the definition of a finished (habitable) area. Drywall used for fire protection is permitted in unfinished areas.

**VALUATION:** For the purpose of this chapter and in determining substantial improvement, the valuation listed on the County Equalization site at the time of permit, shall be utilized for determining the overall value of the property and/or structure(s).

**VARIANCE:** A specific exception, granted by the Planning and Zoning Commission, to the terms where such deviation will not be contrary to the public interest and will be granted due to circumstances peculiar to a property.

**WALLED AND ROOFED:** A building that has two (2) or more exterior rigid walls and a fully secured roof and that is affixed to a permanent site.

**WATER SURFACE ELEVATION.** The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, 1988, or other datum where specified, of floods of various magnitudes and frequencies in an area of special flood hazard.

**ZONE:** A geographical area shown on a Flood Hazard Boundary Map (FHBM) or a Flood Insurance Rate Map (FIRM) that reflects the severity or type of flooding in the area.

### **GENERAL PROVISIONS**

#### **151.025 LANDS TO WHICH THIS CHAPTER APPLIES:**

This chapter shall apply to all areas of special flood hazard as designated on the FEMA Flood Insurance Rate Map within the municipal limits of the City of Box Elder and within the three (3) mile extraterritorial jurisdiction of the City limits.

#### **151.026 AREAS OF SPECIAL FLOOD HAZARD:**

The Flood Insurance Study, and Flood Insurance Rate Maps for the City of Box Elder (Community #460089) and Pennington County (Community #460064) with an effective date of June 3, 2013, and for Meade County (Community #460054) with an effective date of September 16, 2011, and any revisions thereto, delineate areas of special flood hazard and are hereby adopted by reference and declared to be part of this Ordinance. Said FIRM's are hereby designated as the official maps of the City of Box Elder for the purpose of this ordinance.

#### **151.027 COMPLIANCE:**

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

#### **151.028 ABROGATION AND GREATER RESTRICTIONS:**

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, ordinances, laws, or deed restrictions. However, if this chapter and/or another ordinance, law, easement, covenant, or deed restriction conflict or overlap, the more stringent restrictions shall prevail.

#### **151.029 INTERPRETATION:**

In the interpretation and application of this chapter, all provisions shall be: considered as minimum requirements; liberally construed in favor of the City; and deemed neither to limit nor repeal any other powers granted under state statutes.

**151.030 WARNING AND DISCLAIMER OF LIABILITY:**

- (A) The degree of flood protection required by this chapter 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 man-made or natural causes.
- (B) This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Chapter 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 the Box Elder Flood Damage Prevention Ordinance or any administrative decision lawfully made thereunder.

**ADMINISTRATION****151.040 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR:**

The Common Council hereby appoints the Planning Director and/or his designee as the Floodplain Administrator to administer and implement the provisions of this chapter and other appropriate sections of National Flood Insurance Program Regulations pertaining to floodplain management.

**151.041 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR:**

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

- (A) To maintain and hold open for public inspection all records pertaining to the provisions of *this chapter*.
- (B) To review permit applications to determine whether a proposed building site, including the placement site of a factory-built home, will be reasonably safe from flooding.
- (C) To review each floodplain development permit application and make a recommendation for approval, approval with conditions, or denial to the Commission. The Commission shall make a recommendation for approval, approval with conditions, or denial to the Common Council.
- (D) To review floodplain development permit applications for proposed development to assure that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.

(E) To interpret, as needed, the exact location of a boundary of an area of special flood hazard. For example, where there appears to be a conflict between a mapped boundary and actual field conditions, the Floodplain Administrator shall make the necessary interpretation.

(F) To notify adjacent communities, DENR, and SDOEM prior to any alteration or relocation of a watercourse, and submit evidence of such notification to FEMA.

(G) To assure that the flood-carrying capacity within an altered or relocated portion of any watercourse is maintained.

(H) To obtain, review, and reasonably utilize any base flood elevation data and floodway data available from a federal, state, or other source when base flood elevation data has not been provided by the adopted FIRM, in order to administer the provisions of this chapter.

(I) To review floodplain development permit applications for proposed development to assure that no new construction, substantial improvements, or other development (including fill) be permitted within areas of special flood hazard with designated base flood elevations on the adopted FIRM when a floodway has not been designated, unless it is demonstrated by the applicant's Professional Engineer 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 at any point within the City.

(J) To ensure that FEMA has approved a CLOMR before the Commission and Common Council have reviewed and approved a floodplain development permit for which a CLOMR will be required.

(K) To declare that a structure is a repetitive loss or is substantially damaged.

(L) To ensure that certified plans and specifications for development within areas of special flood hazard are reviewed for compliance with the requirements of this ordinance.

(M) To coordinate with the Commission, Common Council, Public Works and other Departments to insure that the requirements of this ordinance are fully met.

(N) To advise the Planning Commission and Common Council when a "critical facility" is planned within the floodplain.

#### **151.042 CLOMR & LOMR REQUIREMENTS:**

A CLOMR is required for development projects that are located in an area of special flood hazard for which base flood elevations have been specified on the adopted FIRM and the proposed project would result in any (greater than 0.0') increase in the base

flood elevation or alteration of any floodplain or floodway boundary. Proof that FEMA has granted a CLOMR must be provided with the Floodplain Development Permit Application or the project before work may be allowed to begin. In such cases, the Floodplain Development Permit may be approved contingent upon the applicant submitting an application to FEMA within six months of project to completion for the LOMR proposed in the granted CLOMR and eventual notification by FEMA that said LOMR has been granted.

#### **151.043 ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT:**

A floodplain development permit shall be obtained, before construction begins, for any building or structure that will be built within an area of special flood hazard within the municipal limits of the City. Building, grading, or moving permits shall not be issued by City Planning Department for sites within areas of special flood hazard before the Common Council has approved a floodplain development permit for the site. The floodplain development permit shall be required to ensure conformance with the provisions of *this chapter*.

City or public utility projects to install underground or overhead utilities that will result in no net change to ground surface elevations within areas of special flood hazard are exempt from the requirement to obtain a Floodplain Development Permit.

Replacement of an existing mobile home or manufactured home by a different manufactured home in an existing manufacture home park shall be exempt from the requirement of first obtaining a Floodplain Development Permit. However, an as-built Elevation Certificate complying with the one (1') feet above BFE requirement, shall be submitted to the Planning Department within thirty (30) days of the date the replacement manufactured home is moved into the manufactured home park. A "Certificate of Compliance" shall then be issued and occupancy may be permitted. Failure to provide accurate Elevation Certificate with the thirty (30) day limit, may result in removal of the manufactured home from the City.

Floodplain Development Permits will expire in six (6) months if no work has begun, and in all cases, the permit will expire in sixteen (16) months, unless an extension has been approved.

#### **151.044 FLOODPLAIN DEVELOPMENT PERMIT PROCEDURE:**

- (A) Applications for Floodplain Development Permits shall be submitted to the Planning Department, prior to the commencement of any development activities. The Floodplain Development Permit Application shall consist of: a Floodplain Development Permit Application form provided by the Planning Department; a scaled and dimensioned site plan of the property showing existing and proposed structure locations (including the placement of factory-built homes) and elevations, location of material or equipment storage, location of wetlands and other protected areas, existing or

proposed utilities and street infrastructure, property boundaries, and areas of special flood hazard, floodplain and/or floodway boundaries; the location, extent, and elevation of areas of excavation, fill, and grading (preparation of the site plan may be required to be produced by a registered land surveyor); an elevation certificate stamped by a Registered Land Surveyor may be required; a No Rise Certification prepared by a Professional Engineer may be required; a Flood-proofing Certificate prepared and stamped by a Professional Engineer may be required, other relevant engineering data and certifications may be required; and a non-refundable floodplain development permit application fee. The Floodplain Administrator shall maintain a record of all such information that has been submitted.

- (B) The following information at a minimum, is required as part of the application, where pertinent:
- (1) Elevation (in relation to mean sea level), of the lowest floor (including basement and/or crawlspace) of all new and substantially improved structures;
  - (2) Elevation (in relation to mean sea level) to which any nonresidential structure shall be flood-proofed;
  - (3) A certification from a professional engineer or architect that the nonresidential flood-proofed structure shall meet the flood-proofing criteria of 151.056(C) below; and
  - (4) A written description from a Professional Engineer of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
- (C) The provisions of this chapter and the following relevant factors shall be considered during the review and recommendation of a floodplain development permit application by the Floodplain Administrator and the Planning Commission before the Common Council approves, approves with conditions, or denies the Floodplain Development Permit:
- (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, public utilities, and facilities such as sewer, gas, electrical, and water systems;
  - (7) The expected height, 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; and
  - (10) The relationship of the proposed use to the comprehensive plan for that area.
- (D) Upon placement of the lowest floor, or Flood-proofing by whatever approved construction means, it shall be the duty of the Permit holder to submit to the Floodplain Administrator a certification of the elevation of the lowest floor or flood-proofed elevation, as built, in relation to mean sea level.

Said certification shall be prepared by or under the direct supervision of a Registered Land Surveyor or Professional Engineer and certified by same on the current FEMA-authorized form. Any work undertaken prior to the submission of the certification shall be at the permit holder's risk.

#### **PROVISIONS FOR FLOOD HAZARD REDUCTION**

##### **151.055 GENERAL STANDARDS:**

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

- (A) 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.



- (B) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (C) All new construction or substantial improvements shall be constructed with materials resistant to flood damage.
- (D) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, 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.
- (E) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood-waters into the system.
- (F) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood-waters into the system and discharge from the system into flood-waters.
- (G) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- (H) All existing buildings or substantial improvements that are to be removed from areas of special flood hazard by Letters of Map Change (LOMA or LOMR) shall show that the lowest adjacent grade of the structure must also be equal to or higher than the base flood elevation.
- (I) For some activities and facilities, even a slight chance of flooding is too great a threat. For the purpose of this chapter, critical facilities include but are not limited to; hospitals, fire stations, police stations, storage of critical records, or hazardous materials and similar facilities as determined by the Common Council.

These facilities should be given special consideration when formulating regulatory alternatives and floodplain management plans. A critical facility should not be located in a floodplain if at all possible. If a critical facility must be located in a floodplain it should be provided a higher level of protection so that it can continue to function and provide services after the flood. Communities should develop emergency plans to continue to provide these services during the flood.

Under Executive Order 11988, Floodplain Management, Federal agencies funding and/or permitting critical facilities are required to avoid the 0.2% (500-year) floodplain or protect the facilities to the 0.2% chance flood level.

**151.056 SPECIFIC STANDARDS:**

In all areas of special flood hazard where base flood elevation data has been provided the following provisions for flood hazard reduction are required:

- (A) *Residential construction.* New construction or substantial improvement of any residential structure shall have the lowest floor (including the basement floor), elevated at least one (1'-0") foot above the FIRM Base Flood Elevation. The construction of any residential structure shall conform to the guidance provide in FEMA Technical Bulletin 10-01, ensuring that structures built on fill in or near Special Flood Hazard Areas are reasonably safe from flooding (FEMA Publication FIA-TB-10). A Professional Engineer, Architect, or Registered Land Surveyor shall submit an Elevation Certificate to the Floodplain Administrator that certifies this elevation data both for the "per plans" application and for the post-construction "as-built" circumstances.
- (B) *Nonresidential construction.* New construction or substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including the basement floor) elevated at a minimum one (1'-0") foot above the base flood elevation or, together with attendant utility and sanitary facilities, be designed so that the structure below and three (3'-0") feet above the base flood elevation 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 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 which includes the specific elevation (in relation to mean sea level) to which such structures are flood-proofed shall be submitted to the Floodplain Administrator.
- (C) *Enclosures.* New construction or substantial improvements with fully enclosed areas below the lowest floor (including a crawlspace) that are usable solely for parking of vehicles, building access, or storage in a crawlspace and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by a professional engineer or architect and meet or exceed the following minimum criteria:
  - (1) A minimum of two (2) openings having a total net area of not less than one square inch for every one (1) square foot of enclosed area subject to flooding shall be provided;

- (2) The bottom of all openings shall be no higher than one (1) foot above grade; and
- (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.
- (D) *Crawlspace construction.* The construction of any crawlspace shall conform to the guidance provided in FEMA Technical Bulletin 11-01, Crawlspace Construction for Buildings Located in Special Flood Hazard Areas (FEMA Publication FIA-TB-11 (11/2001).
- (E) *Critical Facilities:* The construction requirements for all critical facilities must meet or exceed the requirements of this chapter, and the Common Council reserves the right to establish additional requirement on a case by case bases in regards to these facilities.
- (F) *Factory-built homes.*
  - (1) All factory-built homes to be placed, or substantially improved within areas of special flood hazard on the adopted FIRM shall be installed using methods and practices, which minimize flood damage. For the purposes of this requirement, factory-built 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 anchoring requirements for resisting wind forces.
  - (2) All factory-built homes to be placed or substantially improved within areas of special flood hazard shall be installed on a permanent foundation such that the lowest floor of the factory-built home is elevated at least one (1'-0") foot above the base flood elevation and such that the factory-built home is securely anchored to an adequately anchored foundation system that is designed to resist flotation, collapse, and lateral movement when the factory-built home site is:
    - (a) Outside of a mobile home park;
    - (b) In a new manufactured home park;
    - (c) In an expansion of an existing mobile home park; or
    - (d) In an existing mobile home park in which a factory-built home has incurred substantial damage as a result of a flood.
  - (3) All factory-built homes to be placed or substantially improved within areas of special flood hazard on the adopted FIRM in an existing

mobile home park shall be elevated so that the lowest floor is at least one (1'-0") foot above the base flood elevation AND the chassis of the factory-built home is supported by reinforced piers that are no less than thirty-six (36") inches in height above grade and securely anchored.

- (4) Anchoring of a factory-built home shall comply at a minimum with FEMA P-85, Second Edition/November 2009 "Protecting Manufactured Homes from Flood and Other Hazards." (A multi-hazard foundation & installation guide)
- (G) Recreational vehicles.
- (1) All recreational vehicles placed on sites within areas of special flood hazard on the adopted FIRM shall either:
    - (a) Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, or
    - (b) Meet the permit requirements of 151.056 above, and the elevation and anchoring requirements for factory-built homes of this section.
  - (2) 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.

#### **151.057 STANDARDS FOR SUBDIVISION PROPOSALS:**

In all areas of special flood hazard the following provisions for flood hazard reduction are required for all subdivision proposals, including the placement of mobile home subdivisions:

- (A) All subdivision proposals shall be consistent with the provisions for flood hazard reduction, including the placement of manufactured home subdivisions.
- (B) All subdivision proposals shall meet the floodplain development permit requirements of this Ordinance.

- (C) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- (D) All subdivision proposals shall have infrastructure such as streets, sewer, gas, electrical, and water systems designed, located, and constructed to minimize or eliminate flood damage.
- (E) All subdivision proposals shall provide base flood elevation contour data prepared by a Professional Engineer.

**151.058 STANDARDS FOR FLOODWAYS:**

Areas of special flood hazard that have been designated on the adopted FIRM or FHBM as floodways are extremely hazardous areas due to the velocity of flood waters which carry debris and have extreme erosion and scour potential. In all floodways the following provisions for flood hazard reduction are required:

FEMA's Procedures for "No-Rise" Certificates Section 60.3 (d) (3) states Communities shall prohibit encroachments, fill, new development, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analysis that the proposed encroachment would not result in any increase in flood levels within the community of the base flood (100-year) discharge.

- (A) Encroachment of the floodway, including fill, new construction, substantial improvements, and other development shall be prohibited unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice by a Professional Engineer that the proposed encroachment would not result in any increase (0.00) in base flood elevations during the occurrence of the base flood discharge. The Professional Engineer shall submit a stamped set of supporting calculations with his No Rise Certification. Said Certification is subject to review by the City of Box Elder and FEMA, prior to consideration of issuance of a Floodplain Development Permit and Compliance Certification.
- (B) All new construction and substantial improvements in the floodway shall comply with all applicable flood hazard reduction provisions of this Ordinance.
- (C) Under the provisions of 44 C.F.R. Chapter 1, 65.12, of the National Flood Insurance Regulations, encroachments may be permitted within the floodway that would result in an increase in base flood elevations, provided that the community first receives approval of a CLOMR through FEMA and the provisions of this Ordinance are followed.

**VARIANCES****151.070 VARIANCES:**

- (A) The Board of Adjustment as established and codified in Chapter 153.104 of this code of ordinances, shall hear and render judgment on requests for variances from the requirements of this Ordinance.
- (B) Any person(s) aggrieved by the decision of the Board of Adjustment may appeal such decision to a court of competent jurisdiction.
- (C) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to FEMA and SDOEM upon the issuance of a variance by the Common Council.
- (D) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (1/2) acre or smaller in size that is contiguous to and surrounded by lots with existing structures that are constructed below the base flood elevation, providing the relevant factors of Section 151.044(C) above have been fully considered. As the lot size increases beyond one-half (1/2) acre, the technical justification required for issuing the variance increases.
- (E) Upon consideration of the factors noted above and the intent of this Ordinance, Common Council may attach such conditions to the granting of a variance as it deems necessary to further the purpose and objectives of this Ordinance.
- (F) Variances shall not be issued within any designated floodway if any increase in base flood elevation during the base flood discharge would result.
- (G) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (H) The following are prerequisites for granting a variance:
  - (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  - (2) Variances shall only be issued upon:
    - (a) The applicant showing a good and sufficient cause; and

- (b) A determination by the Board of Adjustment that failure to grant the variance would result in exceptional hardship to the applicant; and
  - (c) A determination by the Board of Adjustment that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud or victimization of the public, or conflict with existing local laws or ordinances.
- (3) Any applicant to whom a variance is granted shall be given written notice by the Floodplain Administrator that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk and/or possibly denied resulting from the reduced lowest floor elevation.
- (G) Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:
- (1) The criteria outlined in this subchapter are met; and
  - (2) The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

#### **MISCELLANEOUS FLOOD PROVISIONS**

##### **151.082 FLOOD INSURANCE:**

The Common Council hereby:

- (A) Assures the Federal Insurance Administration that it will enact as necessary, and maintain in force for those areas having flood or mudslide hazards, adequate land use and control measures with effective enforcement provisions consistent with the criteria set forth in 1910 of the National Flood Insurance Program Regulations;
- (B) Invests the Mayor and Common Council with the authority and means to:
  - (1) Delineate or assist the Administrator, at his or her request, in delineating the limits of the areas having special flood and mudslide hazards on available local maps of sufficient scale to identify the location of building sites; and

- (2) Provide such information as the Administrator may request concerning present uses and occupancy of the floodplain and mudslide areas; and
  - (3) Cooperate with federal, state and local agencies and private firms which undertake to study, survey, map and identify floodplain or mudslide areas, and cooperate with neighboring communities with respect to management of adjoining floodplain and mudslide areas in order to prevent aggravation of existing hazards; and
  - (4) Submit on the anniversary date of the community's initial eligibility an annual report to the Administrator on the progress made during the past year within the community in the development and implementation of floodplain and mudslide area management measures.
- (C) Appoints the City Finance Officer (as per SDCL 9-14-17) to maintain for public inspection and to furnish upon request a record of elevations (in relation to mean sea level) of the lowest flood (including basement) of all new or substantially improved structures located in the special flood hazard areas. If the lowest flood is below grade on one or more sides, the elevation of the flood immediately above must also be recorded; and
- (D) Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the program.

**151.083 BUILDING PERMIT SYSTEM FOR APPLYING FOR FLOOD INSURANCE:**

- (A) The Planning Commission and Common Council shall review all building permit applications in a flood hazard area for new construction or substantial improvements, to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a location that has a flood hazard, any proposed new construction or substantial improvement (including site fabricated, prefabricated, manufactured, mobile homes, etc.) must:
- (1) Be designed (or modified) and anchored to prevent flotation, collapse or lateral movement of the structure;
  - (2) Use construction materials and utility equipment that are resistant to flood damage; and
  - (3) Use construction methods and practices that will minimize flood damage.
- (B) The Common Council shall review subdivision proposals and other proposed new developments to assure that:



- (1) All proposals are consistent with the need to minimize flood damage;
  - (2) All public utilities and facilities, such as sewer, gas, electrical and water systems are located, elevated and constructed to minimize or eliminate flood damage; and
  - (3) Adequate drainage is provided so as to reduce exposure to flood hazards.
- (C) The Common Council shall require new or replacement water supply systems and/or sanitary sewage systems to be designed to minimize or eliminate infiltration of flood-waters into the systems and discharges from the systems into flood-waters, and require on-site waste disposal systems to be located so as to avoid impairment of them or contamination from them during flooding.

**151.999 PENALTY:**

A violation of any provision of this Ordinance or any amendment thereto, or failure to perform any act required hereunder, including violation of conditions and safeguards established in connection with granting of variance, is punishable by issuance of an Administrative Citation, and may also be considered a Class II Misdemeanor.

Each day of such violation continues shall be considered a separate offense. In addition to any fines or penalty assessed by the court, any violator found guilty shall pay all court costs and expenses involved in the case.

Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation.

**CITY OF BOX ELDER:**

**ATTEST:**

\_\_\_\_\_  
Larry Larson, Mayor

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Nicole Schneider, Finance Officer

First Reading: February 21, 2017  
Second Reading:  
Published:  
Effective: