

NEBRASKA

Good Life. Great Water.

DEPT. OF NATURAL RESOURCES

Suggested Provisions

*Meeting the Minimum Requirements of the
Nebraska Minimum Standards for Floodplain
Management Programs*

and

*Title 44 of the Code of Federal Regulations,
Chapter 1, Part 60.3(c)*

August 2017

INTRODUCTORY NOTE

This suggested ordinance was created to help communities meet the Nebraska Minimum Standards for Floodplain Management Programs and the requirements in Title 44 of the Code of Federal Regulations, Chapter 1, Part 60.3 (c) as part of the National Flood Insurance Program. This ordinance is a guide only and must be thoroughly evaluated by the community's staff, the planning commission, the community attorney, and the community leadership as to the ordinance's adequacy and suitability for the community's needs.

The following points are specific guidance on using this suggested ordinance language:

1. This ordinance is written to be included in a typical zoning ordinance. The ordinance sets up an overlay district each for the flood fringe and floodway, within which the regulations apply. The community can adapt this ordinance to fit entirely as a section within a zoning code, into another code, or as a standalone floodplain management ordinance. All pieces must be included if broken up into various other sections of a community's code, including all the definitions.
2. Do not adopt this ordinance verbatim. Each community must review the suggested ordinance to ensure all required components are included and that the ordinance integrates into the broader set of community ordinances.
3. Any revision of this ordinance in the future must be reviewed by the Nebraska Department of Natural Resources and FEMA before adopting.
4. This ordinance does not eliminate flood risk – it has been created to meet the minimum standards for floodplain management. Adopting and enforcing this ordinance does not eliminate flood risk or establish the ideal floodplain management program. Communities should analyze adopting the higher standards included as optional in this ordinance to provide greater protection from flooding and should evaluate developing additional community administrative procedures to ensure the best possible floodplain management program.
5. This ordinance includes higher and optional standards identified in **highlighted bold**. Communities must evaluate each one and remove any that do not fit the community's needs.
6. This ordinance meets the minimum standards, but does not establish the best possible construction methods to provide for the lowest flood insurance premiums possible. Communities should understand the impact of the adopted regulations on flood insurance when administering the ordinance.
7. Failure to fully enforce this ordinance may result in the community being suspended from the National Flood Insurance Program, pursuant to Title 44 of the Code of Federal Regulations, Chapter 1, Part 59.24. Flood insurance is not available to a community suspended from the NFIP. All violations must be corrected before the community is eligible to rejoin the program.

The community's proposed floodplain management ordinance must be sent to the State NFIP Coordinator at the Nebraska Department of Natural Resources before adopting to ensure compliance with the Nebraska Minimum Standards for Floodplain Management Programs.

Any community wanting additional information about adopting these provisions or higher regulatory standards can contact the State NFIP Coordinator with NeDNR at (402) 471-2363.

ORDINANCE/RESOLUTION NO. {number}

Zoning Overlay District

Floodplain Management Ordinance

60.3(c)

AN ORDINANCE INTRODUCED BY THE GOVERNING BODY CREATING FLOODPLAIN DISTRICTS DEFINING THE SAME AND SETTING FORTH REGULATIONS THEREOF.

SECTION 1.0 STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSES

1.1 STATUTORY AUTHORIZATION

The Legislature of the State of Nebraska has delegated the responsibility to local governmental units to adopt zoning regulations designed to protect the public health, safety, general welfare, and property of the people of the state. The Legislature, in *Nebraska Revised Statutes* Sections 31-1001 to 31-1023 (as amended), has further assigned the responsibility to adopt, administer, and enforce floodplain management regulations to the county, city, or village with zoning jurisdiction over the floodprone area. Therefore the {governing body} of {community name}, Nebraska ordains as follows:

1.2 FINDINGS OF FACT

A. Flood Losses Resulting from Periodic Inundation

The flood hazard areas of {community name}, Nebraska are subject to inundation that results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. General Causes of the Flood Losses

These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities as well as the occupancy of flood hazard areas by uses vulnerable to floods or hazardous to others that are inadequately elevated or otherwise unprotected from flood damages.

1.3 STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety, and general

welfare and to minimize those losses described in Section 1.2 by applying the provisions of this ordinance to:

- A. Restrict or prohibit uses that are dangerous to health, safety, or property in times of flooding or cause undue increases in flood heights or velocities.
- B. Require that uses vulnerable to floods, including public facilities that service such uses, be provided with flood protection at the time of initial construction.
- C. Reduce financial burdens from flood damage borne by the community, its governmental units, its residents, and its businesses by preventing excessive and unsafe development in areas subject to flooding.
- D. Assure that eligibility is maintained for property owners in the community to purchase flood insurance from the National Flood Insurance Program.

1.4 ADHERENCE TO REGULATIONS

The regulations of this ordinance are in compliance with the National Flood Insurance Program Regulations as published in Title 44 of the Code of Federal Regulations and the Nebraska Minimum Standards for Floodplain Management Programs as published in the Nebraska Administrative Code Title 455, Chapter 1.

SECTION 2.0 GENERAL PROVISIONS

2.1 LANDS TO WHICH ORDINANCE APPLIES

This ordinance shall apply to all lands within the jurisdictions of the {community name} identified on the Flood Insurance Rate Map (FIRM) panels {FIRM panel list} dated {FIRM Panel Effective Date(s)} **OR** shown on the Index {FIRM Index number} dated {FIRM Index date} as Zones A, A1-30, AE, AO, or AH and within the Zoning Districts FW and FF established in Section 3.0 of this ordinance. In all areas covered by this ordinance, no development shall be allowed except upon the issuance of a floodplain development permit to develop, granted by the floodplain administrator or the governing body under such safeguards and restrictions as the {governing body} or the designated representative may reasonably impose for the promotion and maintenance of the general welfare, health of the inhabitants of the community and where specifically noted in Sections 4.0 and 5.0.

2.2 RULES FOR INTERPRETATION OF DISTRICT BOUNDARIES

The boundaries of the floodway and the flood fringe overlay districts shall be determined by scaling distances on the official zoning map or on the effective Flood Insurance Rate Map. Where interpretation is needed to the exact location of the boundaries of the districts as shown on the zoning or other community map, the floodplain administrator

shall make the necessary interpretation. In such cases where the interpretation is contested, the {appeals board} will resolve the dispute. The regulatory flood elevation for the point in question shall be the governing factor in locating the district boundary on the land. The person contesting the location of the district boundary shall be given a reasonable opportunity to present their case to the {appeals board} and to submit their own technical evidence, if so desired.

2.3 COMPLIANCE

Within identified floodplains of this community, no development shall be located, extended, converted, or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

2.4 ABROGATION AND GREATER RESTRICTIONS

This ordinance does not intend to repeal, abrogate, or impair any existent easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provision of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

2.5 INTERPRETATION

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by state statutes.

2.6 WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur or the flood height may be increased by manmade or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that areas outside floodway and flood fringe district boundaries or land uses permitted within such districts will be free from flooding or flood damage. This ordinance shall not create liability on the part of {community name} or any officer or employee thereof for any flood damages that may result from reliance on this ordinance or any administrative decision lawfully made thereunder.

2.7 SEVERABILITY

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

SECTION 3.0 ESTABLISHMENT OF ZONING DISTRICTS

The mapped floodplain areas within the jurisdiction of this ordinance are hereby established as the floodplain overlay district, as identified in the Flood Insurance Study dated {FIS date} and on accompanying FIRM panels as established in Section 2.1. The floodplain overlay district shall correspond to flood zones A, AE, A1-30, AH, AO, AR, A99. Within this district, all uses not meeting the standards of this ordinance and those standards of the underlying zoning district shall be prohibited.

SECTION 4.0 FLOODPLAIN MANAGEMENT ADMINISTRATION

4.1 DESIGNATION OF FLOODPLAIN ADMINISTRATOR

The {floodplain administrator} (floodplain administrator, e.g. clerk, engineer, zoning administrator, etc.) of the community is hereby designated as the community's local floodplain administrator. The floodplain administrator is authorized and directed to administer, implement, and enforce all provisions of this ordinance. **[OPTIONAL: The designated floodplain administrator shall, within one year of being designated, become a Certified Floodplain Manager.]** If the local floodplain administrator position is unfilled, the community CEO shall assume the duties and responsibilities herein.

4.2 PERMITS REQUIRED

A floodplain development permit shall be required before any development, construction, or substantial improvement is undertaken. No person, firm, corporation, government agency, or other entity shall initiate any floodplain development without first obtaining a floodplain development permit.

4.3 DUTIES OF THE FLOODPLAIN ADMINISTRATOR

- A. Duties of the {floodplain administrator} shall include, but not be limited to the following:
- i. Review, approve, or deny all applications for floodplain development permits.
 - ii. Review all development permit applications to assure that sites are reasonably safe from flooding and that the permit requirements of this ordinance have been satisfied.
 - iii. Review applications for proposed development to assure that all necessary permits have been obtained from those federal, state, or local government agencies from which prior approval is required.
 - iv. Review all subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding.
 - v. Notify adjacent communities and the Nebraska Department of Natural Resources

prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency.

- vi. Assure that maintenance is provided within the altered or relocated portion of the watercourse so that the flood carrying capacity is not diminished.
- vii. Verify, record, and maintain record of the actual elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures in the floodplain.
- viii. Verify, record, and maintain record of the actual elevation (in relation to mean sea level) to which all new or substantially improved structures have been floodproofed.
- ix. Verify, record, and maintain record of all improved or damaged structures to ensure compliance with standards in applicable sections. Track value of improvements and market value with permits. Also, ensure consistent market value estimations to evaluate against damaged or improved values.
- x. Ensure comprehensive development plan as amended is consistent with this ordinance.
- xi. In the event the floodplain administrator discovers work done that does not comply with applicable laws or ordinances, the floodplain administrator shall revoke the permit and work to correct any possible violation in accordance with this ordinance.

4.4 APPLICATION FOR PERMIT AND DEMONSTRATION OF COMPLIANCE

- A. To obtain a floodplain development permit, the applicant shall first file an application in writing on a form furnished for that purpose. Every such application shall:
 - i. Identify and describe the proposed development and estimated cost to be covered by the floodplain development permit.
 - ii. Describe the land on which the proposed development is to be done by lot, block, tract, and house and streets address, or similar description that will readily identify and definitely locate the proposed building or development.
 - iii. Indicate the use or occupancy for which the proposed development is intended.
 - iv. Be accompanied by plans and specifications for proposed construction.
 - v. Be signed by the permittee and authorized agent who may be required to submit evidence to indicate such authority.
- B. If any proposed development is located entirely or partially within a floodplain, applicants shall provide all information in sufficient detail and clarity to enable the floodplain administrator to determine that:
 - i. All such proposals are consistent with the need to minimize flood damage;
 - ii. All utilities and facilities such as sewer, gas, water, electrical, and other systems

- are located and constructed to minimize or eliminate flood damage;
- iii. Structures will be anchored to prevent flotation, collapse, or lateral movement;
 - iv. Construction materials are flood resistant;
 - v. Appropriate practices to minimize flood damage have been utilized; and
 - vi. Electrical, heating, ventilation, air conditioning, plumbing, and any other service facilities have been designed and located to prevent entry of floodwaters.
- C. For all new and substantially improved structures, an elevation certificate based upon the finished construction certifying the elevation of the lowest floor, including basement, and other relevant building components shall be provided to the floodplain administrator and be completed by a licensed surveyor, engineer, or architect.
- D. When floodproofing is utilized for an applicable structure, a floodproofing certificate shall be provided to the floodplain administrator and be completed by a licensed professional engineer or architect.
- E. Any other such information as reasonably may be required by the {floodplain administrator} shall be provided.
- F. [OPTIONAL: Letters of Map Revision: Federal regulations in Title 44 of the Code of Federal Regulations, Chapter 1, Part 65.5 and 65.6 allow for changes to the special flood hazard area through a Letter of Map Revision (LOMR) or a Letter of Map Revision Based on Fill (LOMR-F), provided the community determines that the land and any existing or proposed structures that would be removed from the floodplain are “reasonably safe from flooding.” The community acknowledgement form asserting this is required for LOMR and LOMR-F applications and must be signed by the floodplain administrator. The floodplain administrator shall not sign a community acknowledgement form unless all criteria set forth in the following paragraphs are met:**
- i. Applicant shall obtain floodplain development permit before applying for a LOMR or LOMR-F.**
 - ii. Applicant shall demonstrate that the property and any existing or proposed structures will be “reasonably safe from flooding,” according to the minimum design standards in FEMA Technical Bulletin 10-01.**
 - iii. All requirements listed in the Simplified Approach in FEMA Technical Bulletin 10-01 shall be met and documentation from a registered professional engineer shall be provided. If all of these requirements are not met, applicant must provide documentation in line with the Engineered Approach outlined in FEMA Technical Bulletin 10-01.]**

4.5 FLOOD DATA REQUIRED

- A. All Zone A areas on the FIRM are subject to inundation of the base flood; however, the base flood elevations are not provided. Zone A areas shall be subject to all development provisions of this ordinance. If Flood Insurance Study data is not available, the

community shall utilize any base flood elevation or floodway data currently available from federal, state, or other sources, including from a study commissioned by the applicant pursuant to best technical practices.

- B. Until a floodway has been designated, no development or substantial improvement may be permitted within the floodplain unless the applicant has demonstrated that the proposed development or substantial improvement, when combined with all other existing and reasonably anticipated developments or substantial improvements, will not increase the water surface elevation of the base flood more than one (1) foot at any location as shown in the Flood Insurance Study or on base flood elevation determinations.

4.6 VARIANCE AND APPEALS PROCEDURES

- A. The {appeals board} as established by {community name} shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- B. The {appeals board} shall hear and decide appeals when it is alleged that there is an error in any requirement, decision, or determination made by the {floodplain administrator} in the enforcement or administration of this ordinance.
- C. Any person aggrieved by the decision of the {appeals board} or any taxpayer may appeal such decision to the District Court as provided in *Nebraska Revised Statutes* Section 23-168.02 (for counties) and *Nebraska Revised Statutes* Section 19-912 (for municipalities).
- D. In evaluating such appeals and requests, the {appeals board} shall consider technical evaluation, all relevant factors, standards specified in other sections of this ordinance, and:
 - i. The danger to life and property due to flooding or erosion damage;
 - ii. The danger that materials may be swept onto other lands to the injury of others;
 - iii. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner, future owners, and neighboring properties;
 - iv. The importance of the services provided by the proposed facility to the community;
 - v. The necessity of the facility to have a waterfront location, where applicable;
 - vi. The availability of alternative locations that are not subject to flooding or erosion damage for the proposed use;
 - vii. The compatibility of the proposed use with existing and anticipated development;
 - viii. The relationship of the proposed use to the comprehensive plan and the floodplain management program for that area;
 - ix. The safety of access to the property in times of flood for ordinary and emergency vehicles;

- x. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and,
- xi. The costs of providing government services during and after flood conditions including emergency management services and maintenance and repair of public utilities and facilities such as sewer, gas, electrical, water systems, streets, and bridges.

4.7 CONDITIONS FOR VARIANCES

- A. Variances shall only be issued upon a showing of good and sufficient cause and also upon a determination that failure to grant the variance would result in an exceptional hardship to the applicant.
- B. Variances shall only be issued based upon a determination that the granting of a variance will not result in increased flood heights.
- C. Variances shall only be issued based upon a determination that the granting of a variance will not result in additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- D. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items E-H below have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
- E. 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 an historic structure on the National Register of Historic Places and the variance is the minimum necessary to preserve the historic character and design of the structure.
- F. Variances shall only be issued upon a determination that the variance in the minimum necessary, considering the flood hazard, to afford relief.
- G. The applicant shall be given a written notice over the signature of a community that the issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and also that such construction below the base flood elevation increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this ordinance.
- H. All requests for variances and associated actions and documents, including justification for their issuance, shall be maintained by the community.

I. [OPTIONAL: Agricultural structures:

- a. A variance is authorized to be issued for the construction or substantial improvement of agricultural structures provided the requirements of this section and the following are satisfied:**

- i. Is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, or storage of tools or equipment used in connection with these purposes or uses, and will be restricted to such exclusive uses.**
- ii. Has low damage potential (amount of physical damage, contents damage, and loss of function).**
- iii. Does not increase risks and pose a danger to public health, safety, and welfare if flooded and contents are released, including but not limited to the effects of flooding on manure storage, livestock confinement operations, liquified natural gas terminals, and production and storage of highly volatile, toxic, or water-reactive materials.**
- iv. Complies with the wet floodproofing construction requirements of paragraph 5.2(C) of this ordinance.]**

4.8 ENFORCEMENT

A. Violations

Failure to obtain a floodplain development permit or the failure of a structure or other development to be fully compliant with the provisions of this ordinance shall constitute a violation. A structure or other development without a floodplain development permit, elevation certificate, certification by a licensed professional engineer of compliance with these regulations, or other evidence of compliance is presumed to be in violation until such time as documentation is provided.

B. Notices

When the floodplain administrator or other authorized community representative determines, based on reasonable grounds, that there has been a violation of the provisions of this ordinance, the floodplain administrator shall give notice of such alleged violation as hereinafter provided. Such notice shall:

- i. Be in writing;
- ii. Include an explanation of the alleged violation;
- iii. Allow a reasonable time for the performance of any remedial act required;
- iv. Be served upon the property owner or their agent as the case may require; and
- v. Contain an outline of remedial actions that, if taken, will bring the development into compliance with the provisions of this ordinance.

C. Penalties

- i. Violation of the provisions of this ordinance or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances or special exceptions) shall constitute a misdemeanor. Any person, firm, corporate, or other entity that violates this ordinance or fails to comply with any of its requirements shall upon conviction

thereof be fined not more than \$ {fine amount}, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense.

- ii. The imposition of such fines or penalties for any violation or non-compliance with this ordinance shall not excuse the violation or non-compliance or allow it to continue. All such violations or non-compliant actions shall be remedied within an established and reasonable time.
- iii. Nothing herein contained shall prevent the {community name} or other appropriate authority from taking such other lawful action as is necessary to prevent or remedy any violation.

SECTION 5.0 STANDARDS FOR FLOODPLAIN DEVELOPMENT

5.1 GENERAL PROVISIONS

A. Alteration or Relocation of a Watercourse

- i. A watercourse or drainway shall not be altered or relocated in any way that in the event of a base flood or more frequent flood will alter the flood carrying characteristics of the watercourse or drainway to the detriment of upstream, downstream, or adjacent locations.
- ii. No alteration or relocation shall be made until all adjacent communities that may be affected by such action and the Nebraska Department of Natural Resources have been notified and all applicable permits obtained. Evidence of such notification shall be submitted to the Federal Emergency Management Agency.

B. Encroachments

- i. When proposing to permit any of the following encroachments, the standards in Section 5.1 (B) (ii) shall apply:
 - a. Any development in Zones A, A1-30, and Zone AE without a designated floodway that will cause a rise of more than one foot in the base flood elevation; or
 - b. Alteration or relocation of a stream; then
- ii. The applicant shall:
 - a. Apply to FEMA for conditional approval of such action via the Conditional Letter of Map Revision process (as per Title 44 of the Code of Federal Regulations, Chapter 1, Part 65.12) prior to the permit for the encroachments; and
 - b. Supply the fully approved package to the floodplain administrator including any required notifications to potentially affected property owners.

5.2 ELEVATION AND FLOODPROOFING REQUIREMENTS

A. Residential Structures

- i. In Zones A, AE, A1-30, and AH, all new construction and substantial improvements shall have the lowest floor, including basement, elevated to or above one (1) foot **[OPTIONAL: two (2) feet]** above the base flood elevation.
- ii. In Zone AO, all new construction and substantial improvements shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as one (1) foot **[OPTIONAL: two (2) feet]** above the depth number specified in feet on the FIRM or, if no depth number is specified on the FIRM, at least as high as three (3) feet.

B. Nonresidential Structures

- i. In Zones A, AE, A1-30, and AH, all new construction and substantial improvements shall have the lowest floor, including basement, elevated to or above one (1) foot **[OPTIONAL: two (2) feet]** above the base flood elevation or, together with attendant utility and sanitary facilities, floodproofed so that below one (1) foot above the base flood elevation:
 - a. The structure is watertight with walls substantially impermeable to the passage of water and
 - b. The structure has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. A floodproofing certificate shall be provided to the floodplain administrator as set forth in Section 4.

- ii. In Zone AO, all new construction and substantial improvements shall have the lowest floor elevated above the highest adjacent grade at least as high as one (1) foot **[OPTIONAL: two (2) feet]** above the depth number specified in feet on the FIRM or, if no depth number is specified on the FIRM, at least as high as three (3) feet; or, together with attendant utility and sanitary facilities, floodproofed so that below one (1) foot above the base flood elevation:
 - a. The structure is watertight with walls substantially impermeable to the passage of water and
 - b. The structure has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. A floodproofing certificate shall be provided to the floodplain administrator as set forth in Section 4.

[OPTIONAL: remove language relating to dry floodproofing as a compliance option, which would simply require elevation to be the only method to achieve

compliance.]

C. [OPTIONAL: Wet-floodproofing for Agricultural Structures by Variance

- i. When owners elect to wet floodproof agricultural structures, the structure shall:**
 - a. Be anchored to resist flotation, collapse, and lateral movement.**
 - b. Have flood damage-resistant materials below the base flood elevation in compliance with the definition in Section 8.0 “Flood damage resistant materials”**
 - c. Have mechanical, electrical, and utility equipment elevated to or above one (1) foot above the base flood elevation or floodproofed so that below one (1) foot above the base flood elevation they are:**
 - i. Watertight and substantially impermeable to the passage of water; and,**
 - ii. Capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy**

A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. A floodproofing certificate shall be provided to the floodplain administrator as set forth in Section 4.

- d. Have flood openings in compliance with the requirements below:**
 - i. The structure shall be designed to automatically provide for the entry and exit of floodwaters for the purpose of equalizing hydrostatic forces. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:**
 - 1. A minimum of two openings having a net area of not less than one (1) square inch for every one (1) square foot of enclosed space,**
 - 2. The bottom of all openings shall not be 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 allow the automatic entry and exit of floodwaters.**
 - e. If the structure is converted to another use, it must be brought into full compliance with the minimum standards governing such use.**

D. [OPTIONAL: Critical Facilities

- i. New construction or substantial improvement of any critical facility is prohibited in all areas of the floodplain and the 0.2% annual chance floodplain, unless all of the following provisions are met:**

1. No feasible alternative site exists for the construction of an equivalent facility within the corporate or extraterritorial jurisdiction boundaries of {community name};
2. The facility has the lowest floor, including basement, of all structures elevated to one (1) foot above the 0.2% annual chance flood elevation or, together with attendant utility and sanitary facilities, floodproofed so that below one (1) foot above the 0.2% annual chance flood elevation:
 - a. The structure is watertight with walls substantially impermeable to the passage of water and
 - b. The structure has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy

A registered professional engineer or architect shall certify that the standards of the subsection are satisfied. Such certification shall be provided to the floodplain administrator as set forth in Section 4.
3. If the 0.2% annual chance floodplain is not identified, the facility shall have the lowest floor, including basement, elevated to three (3) feet above the base flood elevation or be floodproofed to three (3) feet above the base flood elevation with the standards in 5.2 C (i) (b).
4. The facility has at least one access road connected to land outside the 0.2% annual chance floodplain that is capable of carrying emergency support vehicles and the top of the access road is no lower than the 0.2% annual chance flood elevation.]

E. Space Below Lowest Floor

[OPTIONAL: All new construction and substantial improvements shall not have fully enclosed areas below the base flood elevation.]

- i. Fully enclosed areas below the lowest floor (excluding basements) and below the base flood elevation shall be used solely for the parking of vehicles, building access, or limited storage of readily removable items.
- ii. Fully enclosed areas below the lowest floor (excluding basements) and below the base flood elevation shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

[OPTIONAL: The size of such enclosed areas shall not exceed 299 square feet except for buildings where the minimum clearance height of the enclosed area is less than seven (7) feet.] Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

- a. A minimum of two openings having a net total area of not less than one (1) square inch for every one (1) square foot of enclosed space,
- b. The bottom of all openings shall not be higher than one (1) foot above grade, and

- c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they allow the automatic entry and exit of floodwaters.

F. [OPTIONAL: Accessory Structures

- i. Structures accessory to a principal building may have the lowest floor below one foot above base flood elevation provided that the structure complies with the following requirements:**
 - a. The structure shall not be used for human habitation.**
 - b. The use of the structure must be limited to parking of vehicles or storage of items readily removable in the event of a flood warning.**
 - c. The floor area shall not exceed 800 square feet.**
 - d. The structure shall have a low damage potential.**
 - e. The structure must be adequately anchored to prevent flotation, collapse, or other lateral movement.**
 - f. The structure shall be designed to automatically provide for the entry and exit of floodwaters for the purpose of equalizing hydrostatic forces. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:**
 - i. A minimum of two openings having a net area of not less than one (1) square inch for every one (1) square foot of enclosed space,**
 - ii. The bottom of all openings shall not be higher than one (1) foot above grade, and**
 - iii. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they allow the automatic entry and exit of floodwaters.**
 - g. No utilities shall be installed except electrical fixtures in the structure, which must be elevated to or above one (1) foot above the base flood elevation or floodproofed so that below one (1) foot above the base flood elevation they are:**
 - i. Watertight and substantially impermeable to the passage of water; and,**
 - ii. Capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy**

A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. A floodproofing certificate shall be provided to the floodplain administrator as set forth in Section 4.

h. The structure shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.

i. If the structure is converted to another use, it must be brought into full compliance with the minimum standards governing such use.

G. Manufactured Homes

[OPTIONAL: Within any floodplain, manufactured homes shall be prohibited.]

i. Require that all manufactured homes to be placed or substantially improved within floodplains on sites:

- a. Outside of a manufactured home park or subdivision,
- b. In a new manufactured home park or subdivision,
- c. In an expansion to an existing manufactured home park or subdivision, or
- d. In an existing manufactured home park or subdivision on which a manufactured home as incurred substantial damage as the result of a flood,

Be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above one (1) foot **[OPTIONAL: two (2) feet]** above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of this Section.

ii. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within special flood hazard areas that are not subject to the provisions of Section 5.2 (f) (i) be elevated so that either;

- a. The lowest floor of the manufactured home is at or above one (1) foot above the base flood elevation, or
- b. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade; and be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section 5.2 (F) (iv).

iii. New manufactured home parks of five (5) acres or fifty (50) lots, whichever is less, shall follow the standards of Section 5.3 (H).

iv. All manufactured homes shall be anchored to resist flotation, collapse, or lateral movement. Manufactured homes must be anchored in accordance with local building codes or FEMA guidelines. In the event that over-the-top ties to ground anchors are used, the following specific requirements (or their equivalent) shall be met:

- a. Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate

locations and manufactured homes less than 50 feet long requiring one additional tie per side;

- b. Frame ties be provided at each corner of the manufactured home with five additional ties per side at intermediate points and manufactured homes less than 50 feet long requiring four additional ties per side;
- c. Any additions to the manufactured home be similarly anchored.

H. Existing Structures

- i. The provisions of this ordinance do not require any changes or improvements to be made to lawfully existing structures. However, when an improvement is made to a structure in the floodplain, a floodplain development permit is required and the provisions of 5.2 (G) (ii-iii) shall apply.
- ii. Any addition, alteration, reconstruction, or improvement of any kind to an existing structure where the costs of which would equal or exceed fifty (50) percent of the pre-improvement market value shall constitute a substantial improvement and shall fully comply with the provisions of this ordinance.
- iii. Any addition, alteration, reconstruction, or improvement of any kind to an existing structure that will change the compliance requirements of the building shall require applicable documentation including an elevation certificate, floodproofing certificate, or no rise certification.

5.3 DESIGN AND CONSTRUCTION STANDARDS

[OPTIONAL: A. Fill

Within any floodplain, the use of fill shall be prohibited.]

A. Anchoring

- i. All buildings or structures shall be firmly anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

B. Building Materials and Utilities

- i. All buildings or structures shall be constructed with materials and utility equipment resistant to flood damage. All buildings or structures shall also be constructed by methods and practices that minimize flood and flood-related damages.
- ii. All buildings or structures 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.

C. Drainage

- i. Within Zones AO and AH, adequate drainage paths around structures on slopes shall be required in order to guide floodwaters around and away from proposed structures.

D. Water Supply and Sanitary Sewer Systems

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

iv. [OPTIONAL: New or replaced septic systems in floodplains are prohibited.]

E. Other Utilities

- i. All other utilities such as gas lines, electrical, telephone, and other utilities shall be located and constructed to minimize or eliminate flood damage to such utilities and facilities.

F. Storage of Materials

- i. The storage or processing of materials that are in time of flooding buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.
- ii. The storage of other material or equipment may be allowed if not subject to major damage by floods and firmly anchored to prevent flotation or if readily removable from the area within the time available after flood warning.

G. Recreational Vehicles

[OPTIONAL: Within any floodplain, recreational vehicles and recreational vehicle parks shall be prohibited.]

- i. Recreational vehicles to be placed on sites within the floodplain shall:
 - a. Be on site for fewer than 180 consecutive days;
 - b. Be fully licensed and ready for highway use, which shall mean it is on its wheels or jacking system, is attached to the site by only quick-disconnect type utilities and security devices, and no permanently attached additions; or
 - c. Meet the permit requirements and the elevation and anchoring requirements for manufactured homes of this ordinance.

H. Subdivisions

- i. Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, shall require assurance that:
 - a. All such proposals are consistent with the need to minimize flood

- damage;
- b. All public utilities and facilities such as sewer, gas, electrical, and water systems are located, elevated, and constructed to minimize or eliminate flood damage;
 - c. Adequate drainage is provided so as to reduce exposure to flood hazards; and
 - d. Proposals for development (including proposals for manufactured home parks and subdivisions) of five (5) acres or fifty (50) lots, whichever is less, where base flood elevation data are not available, shall be supported by hydrologic and hydraulic analyses that determine base flood elevations and floodway information. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA for Conditional Letters of Map Revision and a Letters of Map Revision.

SECTION 6.0 NONCONFORMING USE

- A. A structure or use of a structure or premises that was lawful before the passage or amendment of this ordinance, but that is not in conformity with the provisions of this ordinance may be continued subject to the following conditions:
 - i. If such use is discontinued for {number} consecutive months, any future use of the building premises shall conform to this ordinance. The Utility Department shall notify the {floodplain administrator} in writing of instances of nonconforming uses where utility services have been discontinued for a period of {number} months.
 - ii. Uses or adjuncts thereof that are or become nuisances shall not be entitled to continue as nonconforming uses.
- B. If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than 50% of the market value of the structure before the damage occurred except that if it is reconstructed in conformity with the provisions of this ordinance. This limitation does not include the cost of any alteration to comply with existing state or local health, sanitary, or safety code or regulations or the cost of any alteration of a structure listed on the National Register of Historic Places, provided that the alteration shall not preclude its continued designation.

SECTION 7.0 AMENDMENTS

- A. The regulations, restrictions, and boundaries set forth in this ordinance may from time to time be amended, supplemented, changed, or repealed to reflect any and all changes in federal, state, or local regulations provided, however, that no such action may be take

until after a public hearing in relation thereto, at which citizens and parties in interest shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper of general circulation in the {community name}. At least {number} days shall elapse between the date of this publication and the public hearing.

- B. A copy of such amendments will be provided to the Nebraska Department of Natural Resources and the Federal Emergency Management Agency for review and approval before being adopted.

SECTION 8.0 DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance it's most reasonable application:

[OPTIONAL: 0.2% Annual Chance Floodplain means the floodplain that would be inundated by the 0.2% annual chance flood and delineated on the Flood Insurance Rate Maps.]

[OPTIONAL: 0.2% Annual Chance Flood Elevation means the elevation to which floodwaters are expected to rise during a 0.2% annual chance flood.]

[OPTIONAL: Accessory Structure shall mean a structure on the same parcel of property as the principal structure, the use of which is incidental to the use of the principal structure. Also shall be known as "appurtenant structure."]

[OPTIONAL: Agricultural Structure for floodplain management purposes shall mean a walled and roofed structure used exclusively for agricultural purposes or uses in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, including aquatic organisms. Structures that house tools or equipment used in connection with these purposes or uses are also considered to have agricultural purposes or uses.]

Area of Shallow Flooding means a designated AO or 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 one to three feet where a clearly defined channel is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Base Flood means the flood having one (1) percent chance of being equaled or exceeded in any given year.

Base Flood Elevation means the elevation to which floodwaters are expected to rise during the base flood.

Basement means any area of the building having its floor subgrade (below ground level) on all sides.

Building means "structure." See definition for "structure."

[OPTIONAL: Critical Facility means any property that, if flooded, would result in severe consequences to public health and safety. Critical facilities include, but are not limited to: facilities that produces, use, or store hazardous materials; hospitals, nursing homes, and housing likely to contain vulnerable populations; emergency support function facilities like police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers; public and private utility facilities vital to maintaining or restoring normal services to flooded areas before, during, and after a flood.]

Development means any man-made change to improved or unimproved real estate, including but not limited to the construction, reconstruction, renovation, repair, expansion or alteration of buildings or other structures; the placement of manufactured homes; streets and other paving; utilities; filling, grading, and excavation; mining; dredging; drilling operations; storage of equipment or materials; or obstructions.

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 complete before the effective date of the floodplain management regulations adopted by a community.

Expansion to an Existing Manufactured Home Park or Subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas.

Flood Fringe is that area of the floodplain, outside of the floodway, that has a one percent chance of flood occurrence in any one year.

Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Flood Insurance Study has delineated the special flood hazard area boundaries and the risk premium zones applicable to the community.

Flood Insurance Study (FIS) is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Insurance Rate Map and the water surface elevation of the base flood.

Floodplain means any land area susceptible to being inundated by water from any source (see definition of "flooding"). Floodplain includes flood fringe and floodway. Floodplain and special flood hazard area are the same for use by this ordinance.

Floodproofing means any combination of structural and nonstructural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real

property, water and sanitary facilities, and structures and their contents.

Flood-resistant material includes any building product capable of withstanding direct and prolonged contact with floodwaters without sustaining significant damage. Prolonged contact is defined as at least 72 hours.

Floodway or 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 one foot.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain 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, clogged bridge openings, and the hydrological effect of urbanization of the watershed.

Highest Adjacent Grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic Structure means any structure that is: (a) 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; (b) 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; (c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or (d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either: (1) By an approved state program as determined by the Secretary of the Interior or (2) Directly by the Secretary of the Interior in states without approved programs.

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 or modified so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

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".

Manufactured Home Park or Subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

New Construction for floodplain management purposes, "new construction" means structures for

which the "start of construction" commenced on or after the effective date of the floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

Obstruction means any wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation (including the alteration or relocation of a watercourse or drainway), channel rectification, bridge, conduit, culvert, building, stored equipment or material, wire, fence, rock, gravel, refuse, fill, or other analogous structure or matter which may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water, or that is placed where the natural flow of the water would carry such structure or matter downstream to the damage or detriment of either life or property. Dams designed to store or divert water are not obstructions if permission for the construction thereof is obtained from the Department of Natural Resources pursuant to the Safety of Dams and Reservoirs Act (*Nebraska Revised Statutes* 46-1601 to 46-1670 as amended).

Overlay District is a district in which additional requirements act in conjunction with the underlying zoning district(s). The original zoning district designation does not change.

Post-FIRM Structure means a building that was constructed or substantially improved after December 31, 1974 or on or after the community's initial Flood Insurance Rate Map dated {FIRM effective date}, whichever is later.

Pre-FIRM Structure means a building that was constructed or substantially improved on or before December 31, 1974 or before the community's initial Flood Insurance Rate Map dated {FIRM effective date}, whichever is later.

Principally Above Ground means that at least 51 percent of the actual cash value of the structure is above ground.

Recreational Vehicle means a vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizontal projections; (iii) designed to be self-propelled or permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory Flood Elevation means the base flood elevation (BFE) plus a freeboard factor as specified in this ordinance.

Special Flood Hazard Area (SFHA) is the land in the floodplain within a community subject to one percent or greater chance of flooding in any given year.

Start of Construction means the date the floodplain development 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. "Start of construction" also 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 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 the alteration affects the external dimensions of the building.

Structure means a walled and roofed building that is principally above ground, as well as a manufactured home and a gas or liquid storage tank that is principally above ground.

Subdivision means the division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels, or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership, or building or lot development.

Substantial Damage means damage of any origin sustained by a structure whereby the [OPTIONAL: cumulative] cost of restoring the structure to its before-damage condition would equal or exceed 50 percent [OPTIONAL: 30 percent] of the market value of the structure before the damage occurred. [OPTIONAL: Cumulative costs shall include all costs for reconstruction, rehabilitation, or other improvement of the structure to repair damage incurred within 10 years preceding the date of the floodplain development permit.]

Substantial Improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the [OPTIONAL: cumulative] cost of which equals or exceeds 50 percent [OPTIONAL: 30 percent] of the market value of the structure before "start of construction" of the improvement. This includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which 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 structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure." [OPTIONAL: Cumulative costs shall include all costs for reconstruction, rehabilitation, or other improvement of the structure to repair damage incurred within 10 years preceding the date of the floodplain development permit and shall include any costs resulting from substantial damage.]

Variance is a grant of relief to an applicant from the requirements of this ordinance that allows construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

Violation means a failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the Elevation Certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

Watercourse means any depression two feet or more below the surrounding land that serves to give direction to a current of water at least nine months of the year and that has a bed and well-defined banks.

ADOPTED AND APPROVED by the Governing Body of {community name}

This {day} day of {month}, {year}

(community seal)

Mayor/Chairperson

City/County Clerk