

## CHAPTER 27.53

### FLOOD REGULATIONS FOR NEW GROWTH AREAS

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#### **27.53.010 Scope of Regulations.**

The regulations set forth in this chapter, or set forth elsewhere in this title when referred to in this chapter, are known as the Flood Regulations for New Growth Areas. The regulations shall apply to all lands within New Growth Areas in the floodplain or floodprone areas within the zoning jurisdiction of the City of Lincoln that are subject to a one percent or greater chance of flooding in any given year. The official Flood Insurance Rate Map (FIRM) for Lancaster County, Nebraska and Incorporated Areas Revised April 16, 2013 issued by FEMA and the Flood Insurance Study (FIS) for Lancaster County, Nebraska and Incorporated Areas Revised April 16, 2013 and any revisions thereto are hereby adopted by reference and declared to be a part of this Chapter. A copy of the FIRM and FIS are on file in the Department of Building and Safety.

The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or the flood height may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. Compliance with these regulations does not imply that lands outside floodplain and floodprone areas or uses within such areas will be free from flooding or flood damage. This ordinance shall not create liability on the part of the City of Lincoln 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. (Ord. 19867 §3; April 15, 2013; prior Ord. 19485 §3; January 10, 2011; Ord. 18360 §1; May 10, 2004).

#### **27.53.020 Definitions.**

For the purpose of this chapter, certain terms and words are defined:

**2-Year Flood** shall mean the flood having a fifty percent chance of being equaled or exceeded in any given year.

**10-Year Flood** shall mean the flood having a ten percent chance of being equaled or exceeded in any given year.

**100-Year Flood** shall mean the flood having a one percent chance of being equaled or exceeded in any given year.

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

**Basement** shall mean any enclosed area having its floor below grade level on all sides.

**Compensatory Storage** shall mean replacement of storage volume that is hydrologically equivalent to lost storage when encroachment occurs in the floodplain or floodprone area.

**Development** shall mean any man-made change to improved or unimproved real estate, including but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

**Existing manufactured home park or subdivision** shall mean a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of this ordinance.

**Expansion to an existing manufactured home park or subdivision** shall mean the preparation of additional sites by the construction of facilities for serving 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).

**FEMA** shall mean the Federal Emergency Management Agency.

**Flood Design Criteria** shall mean Chapter 10 of the City of Lincoln Drainage Criteria Manual, adopted on February 22, 2000 by Resolution No. A-80038, as amended.

**Flood Insurance Rate Map (FIRM)** shall mean the Flood Insurance Rate Map for Lancaster County, Nebraska and Incorporated Areas Revised April 16, 2013 issued by FEMA and any revisions thereto, on which FEMA has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

**Flood Insurance Study (FIS)** shall mean the Flood Insurance Study for Lancaster County, Nebraska and Incorporated Areas Revised April 16, 2013 issued by FEMA in conjunction with the FIRM and containing background data such as base flood discharges and water surface elevations used to prepare the FIRM.

**Floodplain** shall mean those lands which are subject to a one percent or greater chance of flooding in any given year, as shown on the Flood Insurance Rate Map issued by FEMA for Lancaster County, Nebraska and incorporated areas, as amended.

**Floodprone area** shall mean those lands subject to a one percent or greater chance of flooding in any given year, as determined by hydrologic and hydraulic studies completed by the City or other government agency, or other acceptable source as approved by the City where this is the best available information.

**Floodproofing** shall mean any combination of structural and nonstructural 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.

**Floodway** shall mean the channel of a river or other watercourses 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.

**Historic structure** shall mean any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the Department of the 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 City of Lincoln, a Certified Local Government (CLG), in consultation with the Nebraska State Historic Preservation Officer (SHPO),

as contributing to the historical significance of a locally or nationally designated historic district; (c) individually designated as a Landmark by the City of Lincoln, a CLG, under the provisions of Chapter 27.57 of the Lincoln Municipal Code.

**Lateral Addition** shall mean an addition to a non-residential structure which expands the floor area of the first story. First story shall mean the lowest story in a building which qualifies as a story, as defined in Section 20.08 of the Lincoln Building Code.

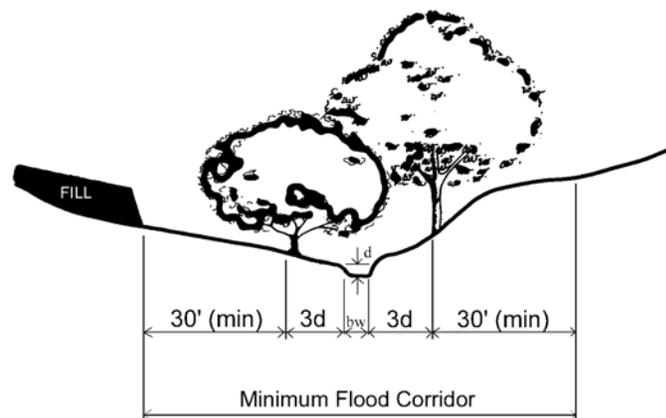
**Letter of Map Change (LOMC)** shall mean a determination document issued by FEMA that officially revises the FIRM based on updated information, whether improved data or topography changes created by fill placement. Includes Letter of Map Amendment (LOMA), Letter of Map Revision (LOMR), and Letter of Map Revision based on Fill (LOMR-f).

**Lowest floor** shall mean the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles or building access, in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

**Manufactured home** shall mean, for purposes of this chapter, 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" shall not include a "recreational vehicle."

**Manufactured home park or subdivision** shall mean a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**Minimum Flood Corridor** shall mean the existing channel bottom width plus 60 feet plus six times the channel depth and the corridor will be centered on the channel, as shown in Figure 1 below, or aligned such that the corridor follows the natural flow of flood waters.



**Figure 1 - Minimum Flood Corridor**

**NAVD** shall mean the North American Vertical Datum of 1988.

**New construction** shall mean structures for which the start of construction commenced on or after the effective date of this ordinance and shall include any subsequent improvements to such structures.

**New growth areas** shall mean those areas outside the corporate limits of the City of Lincoln and zoned AG Agriculture and AGR Agricultural Residential on the effective date of this ordinance.

**New manufactured home park or subdivision** shall mean 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 this ordinance.

**Non-substantial improvement** shall mean any improvement that does not meet the definition of substantial improvement, as defined in this section.

**Qualified engineer** shall mean a registered professional engineer who, by reason of training and experience, is considered knowledgeable in hydrology and hydraulics and their application to the flood insurance study and has demonstrated competence to the satisfaction of the Director of Building and Safety.

**Recreational vehicle** shall mean a vehicle which is:

- (1) built on a single chassis;
- (2) 400 square feet or less when measured at the largest horizontal projections;
- (3) designed to be self-propelled or permanently towable by a light duty truck;

and

(4) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

**Riverine** shall mean relating to, formed by, or resembling a river (including tributaries, streams, brooks, etc.).

**Special Flood Hazard Area** shall mean the land in the floodplain subject to a one percent or greater chance of flooding in any given year.

**Start of construction** shall mean either the first placement of permanent construction of a structure on a site, such as the pouring of slabs 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 as part of the main structure. For a substantial improvement, the actual start of construction shall mean the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimension of the building.

**Structure** shall mean, for floodplain and floodprone area management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

**Substantial damage** shall mean damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal to or exceed fifty percent of the market value of the structure before the damage occurred.

**Substantial improvement** shall mean any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure before the start of construction of the improvement. Substantial improvement shall include structures which have incurred substantial damage, regardless of the actual repair work performed. The term shall not, however, include either (i) 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 (ii) any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation of a historic structure.

**Variance** shall mean a grant of relief from the terms of a floodplain management regulation, this shall be done by Special Permit in accordance with section 27.53.060 of the Zoning Code.

**Violation** shall mean the failure of a structure or other development to be fully compliant with the floodplain management regulations as set forth in this chapter. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance as required is presumed to be in violation until such time as that documentation is provided.

**Watershed Master Plan** shall mean a plan generated by the City or by the City in cooperation with other agencies, which includes hydrologic and hydraulic modeling for the 100-year event, including 100-year floodplain elevation and limits. (Ord. 19867 §4; April 15, 2013; prior Ord. 19485 §4; January 10, 2011: Ord. 18360 §2; May 10, 2004).

### **27.53.030 Standards.**

The following shall be the standards to be followed in connection with the Flood Regulations for New Growth Areas:

(a) **General Standards:**

(1) No development, substantial improvement or lateral addition may be permitted within the floodway as designated by the Federal Emergency Management Agency (FEMA) or as determined by hydrologic and hydraulic studies completed by the City or other government agency, or other acceptable source as approved by the City, unless the applicant has demonstrated that the proposed development or substantial improvement shall:

- (i) Be accomplished in conformance with the Flood Design Criteria.
- (ii) Be accomplished in conformance with Section 27.53.030(h) below.

(2) No development, substantial improvement or lateral addition may be permitted within the floodplain or floodprone area outside the floodway or where no floodway has been designated except as provided in Section 10.2 of the Flood Design Criteria unless the applicant has demonstrated that the proposed development or substantial improvement shall:

- (i) Be accomplished in conformance with the Flood Design Criteria.
- (ii) Cause no greater than five hundredths of a foot (0.05') of rise in the 100-year flood elevation.

(iii) Cause no greater than five hundredths of a foot (0.05') of rise in areas with a watershed master plan for the 2-, 10-, and 100-year flood elevations, as demonstrated using the hydraulic model from the watershed master plan.

(iv) Notwithstanding certain exceptions in the Flood Design Criteria allowing for greater than five hundredths of a foot (0.05') of rise in the flood elevation, the development shall not cause greater than one foot (1.0') of rise in the FEMA-mapped flood fringe where no floodway has been designated.

An exception to the above shall be permitted provided the applicant has acquired by land rights purchase, flowage easement, or other legal arrangement the right to increase the flood levels greater than one foot (1.0') on all affected lands, and provided that before any permit is issued the applicant submits a FEMA approved Conditional Letter of Map Revision to the Director of Building and Safety. When such encroachment is completed, a FEMA approved Letter of Map Revision must also be provided by the applicant.

(3) No development, substantial improvement or lateral addition may be permitted within the floodplain or floodprone area except as provided in Section 10.2 of the Flood Design Criteria unless the applicant has demonstrated that the proposed development or substantial improvement shall:

(i) Be accomplished in conformance with the Flood Design Criteria.  
(ii) Compensate for any flood storage lost by providing a hydrologically equivalent volume of storage adjacent to the area of the encroachment.

(iii) Compensate for flood storage lost below the existing 10 year water surface elevation by providing storage below the proposed 10 year water surface elevation, and compensate for flood storage lost above the existing 10 year water surface elevation with flood storage above the proposed 10 year water surface elevation.

(iv) Cause no increase in peak flow rates in areas with a watershed master plan for the 2-, 10-, and 100-year flood events, as demonstrated using the hydrologic model from the watershed master plan.

(4) Along stream channels within the floodplain or floodprone area which have a defined bed and bank or which have drainage areas exceeding 150 acres, development shall preserve a Minimum Flood Corridor. Minimum corridor preservation and mitigation for allowed encroachments shall be in conformance with Section 10.3 of the Flood Design Criteria.

(5) Roadway bridges, and other drainage facilities, may have their superstructure submerged or partially submerged below the base flood level, provided that the facility has been designed to resist the hydrostatic and hydrodynamic loads as well as the effects of the buoyancy as certified by a registered professional engineer.

(6) Within the floodplain or floodprone area, all new construction, substantial improvements, and any lateral addition shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy; constructed with materials and utility equipment resistant to flood damage; and constructed by methods and practices that minimize flood damage. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities for all new construction, substantial improvements, and any lateral addition, shall be elevated at least one foot above the base flood elevation or designed so as to prevent water from entering or accumulating within the components during conditions of flooding. A registered professional engineer or architect shall certify that these provisions are satisfied.

(7) The location, grade, and floodproofing of all new and replacement water and sanitary sewer systems which are to be extended into or through any portion of the floodplain or floodprone area to serve the proposed development shall first be approved by the city prior to the extension of such utilities into the floodplain or floodprone area.

(8) New or replacement water supply systems and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters. Individual disposal systems shall be designed in accordance with the standards set forth in Chapter 24.38 of the Lincoln Municipal Code in order to minimize impairment to them or contamination from them during flooding.

(9) On-site waste disposal systems shall be located to avoid impairment to the system or contamination from such systems during flooding.

(10) 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.

(11) 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 the issuance of flood warning by appropriate authorities.

(12) Filling, grading, and excavation may be allowed in the designated floodplain or floodprone area under the following conditions:

(i) Fill shall be protected against erosion and sediment by such measures as rip-rap, vegetative cover, bulkheading, or sedimentation basins as approved by the Director of Building and Safety.

(ii) Any fill to be deposited in the floodplain or floodprone area must be shown by the applicant not to be a detriment to the general public as well as the surrounding land owners.

(iii) Fill materials shall be of a selected type, preferably clean dirt, gravel, or rock no greater than two inches in diameter. The use of decomposing materials, such as wood and other degradables, shall be prohibited. Fill shall be placed in six inch compacted layers. Fill selection and placement shall recognize the effects of saturation from flood waters on slope stability, uniform and differential settlement, and scour potentials.

(iv) Prior to placement of any fill or embankment materials, the area upon which fill is to be placed shall be cleared of debris, snags, stumps, brush, down timber, logs, and other objects. All materials and debris from this clearing shall be removed from the proposed fill and disposed of at approved locations outside the floodplain or floodprone area.

(v) Fill slopes for granular materials shall be no steeper than one vertical on two horizontal unless substantiating data justifying steeper slopes are submitted to the Director of Building and Safety and approved.

(vi) Excavation in the floodplain or floodprone area shall be done so that the land surface is maintained in such a manner that surface waters do not collect and pond unless specifically approved by the Director of Building and Safety.

(b) Residential Construction. All new construction and substantial improvements of residential structures within the designated floodplain or floodprone area shall have the lowest floor, including basement, elevated at least one foot above the base flood level. Garages and storage buildings used exclusively for the storage of motor vehicles, and storage of other items readily removable in the event of a flood warning may have their lowest floor below flood elevation, provided the building structure is capable of withstanding hydrostatic and hydrodynamic forces caused by the 100-year flood and, further, provided that no utilities are installed in the building except elevated or floodproofed electrical fixtures. If the building is converted to another use, it must be brought into full compliance with the requirements of this title governing such uses.

(c) Nonresidential Construction. All new construction, substantial improvements, and any lateral addition to commercial, industrial, and other nonresidential structures within the floodplain or floodprone area shall either have the lowest floor, including basement, elevated at least one foot above the base flood level or, together with attendant utility and sanitary facilities, be floodproofed so that below the base flood level plus one foot the structure is watertight in accordance with the performance standards set forth in the city's building code. A registered professional engineer or architect shall develop or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction meet the watertight performance standards. The certification shall be provided to the city as set forth in Section 27.53.040 of this chapter.

(d) For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

(2) The bottom of all openings shall be no higher than one foot above grade; and

(3) Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

(e) **Manufactured Home Parks and Subdivisions.** All manufactured homes shall be located in a manufactured home park or a manufactured home subdivision in accordance with Sections 27.63.120 and 27.63.125 of this title. No manufactured home shall be located in a manufactured home park or subdivision within the floodplain or floodprone area unless the following conditions are met:

(1) New manufactured home parks and subdivisions; expansions; substantial damage. Manufactured homes placed (i) on individual lots within or outside of new manufactured home parks or subdivisions, (ii) on individual lots within an expanded area of an existing manufactured home park or subdivision, or (iii) in an existing manufactured home park or subdivision in which a manufactured home has incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that their lowest floor is at least one foot above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the standards to resist floatation, collapse, and lateral movement set forth in subsection (f) below;

(2) Existing manufactured home parks and subdivisions. Manufactured homes to be placed or substantially improved on individual lots in existing manufactured home parks or subdivisions, shall either (i) be elevated on a permanent foundation such that their lowest floor is at least one foot above the base flood elevation or (ii) be supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than three feet in height above grade and be securely anchored to an adequately anchored foundation system in accordance with the standards to resist floatation, collapse, and lateral movement set forth in subsection (f) below.

If the option provided by (ii) above is exercised, the current owner and occupant, and any future buyer, renter, or occupier shall jointly acknowledge in writing that the option of piers as an alternative to placement of the manufactured home one foot above the base flood elevation has been exercised and, therefore, may be subject to flooding. Such acknowledgment shall be filed with the Director of Building and Safety prior to the issuance of hook-up permits to the subject home.

(3) Adequate surface drainage and access for a hauler are provided;

(4) Where manufactured homes are elevated on pilings, lots shall be large enough to permit steps, piling foundations shall be placed in stable soil no more than ten feet apart, and reinforcement shall be provided for pilings more than six feet above the ground level; and

(5) The grade of land for manufactured home parks or subdivisions which are situated within the floodplain or floodprone area shall be raised at least one foot above the base flood elevation.

(f) **Manufactured Homes Located Outside of a Manufactured Home Park or Subdivision.** Manufactured homes located outside of a manufactured home park or subdivision shall be elevated at least one foot above the base flood elevation or anchored to the elevated foundation to resist floatation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top and frame ties to ground anchors;

(1) If over-the-top ties are used, such ties shall be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations except that manufactured homes less than fifty feet in length may provide only one additional tie per side;

(2) Frame ties shall be provided at each corner of the manufactured home with five additional ties per side at intermediate points except that manufactured homes less than fifty feet in length may provide only four additional ties per side;

(3) All components of the anchoring system shall be capable of carrying a force of 4,800 pounds; and

(4) Any additions to the manufactured home shall be similarly anchored.

(g) Recreational Vehicles:

(1) Shall be on the site for fewer than 180 consecutive days;

(2) Shall be fully licensed and ready for highway use (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); or

(3) Meet the requirements for manufactured homes.

(h) Floodways.

(1) Encroachments into the floodway are prohibited, including fill, new construction, substantial improvements, and other development within the floodway unless certification by a qualified engineer is provided, demonstrating that the proposed encroachment will not result in any increase in flood levels during occurrence of the base flood discharge along the floodway profile.

An exception to the above shall be permitted provided the applicant has acquired by land rights purchase, flowage easement, or other legal arrangement the right to increase the flood levels on all affected lands, and provided that before any permit is issued the applicant submits a Federal Emergency Management Agency (FEMA) approved Conditional Letter of Map Revision to the Director of Building and Safety. When such encroachment is completed, a FEMA approved Letter of Map Revision must also be provided by the applicant.

(2) If the above provision is satisfied, all new construction and substantial improvements shall comply with all other applicable provisions contained in Section 27.53.030.

(3) The placement of any manufactured home parks and manufactured home subdivisions and the construction of new structures for human habitation within the floodway is prohibited.

(i) AO Zones. Designated AO zones within the floodplain have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply within AO zones:

(1) All new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as one foot above the depth number specified in feet on the FIRM (at least two feet if no depth number is specified).

(2) All new construction, any lateral addition, and substantial improvements of non-residential structures shall:

(i) Have the lowest floor elevated above the highest adjacent grade at least as high as one foot above the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or

(ii) Together with attendant utility and sanitary facilities be completely floodproofed to or above that level so that any space below that level 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. Such certification shall be provided to the official as set forth in Section 27.53.040(d).

(3) Adequate drainage paths around structures on slopes shall be required in order to guide floodwaters around and away from proposed structures. (Ord. 18661 §1; January 9, 2006; prior Ord. 18360 §3; May 10, 2004).

#### **27.53.040 Administration.**

A development permit shall be required in conformance with the provisions of this chapter. All new construction of residential and nonresidential structures or other development, including the placement of manufactured homes, within the floodplain or floodprone area shall hereafter be in full compliance with the terms of this chapter and other applicable regulations. All existing residential and nonresidential structures that are not in compliance with the terms of this chapter shall be required to conform to these terms before substantial improvements can be made. It shall be the duty of the Director of Building and Safety to enforce this chapter. His duties shall include, but not be limited to:

(a) Review all development permits to assure that the permit requirements for this chapter have been satisfied;

(b) Review proposed development to assure that all necessary permits have been obtained from those agencies from which prior approval is required by federal, state or local law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;

(c) Notify affected adjacent communities and the Nebraska Department of Natural Resources in riverine situations prior to any alteration or relocation of a watercourse, and submit copies of such notifications to FEMA, and assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained;

(d) Require a registered professional engineer or registered professional land surveyor to verify the actual elevation in NAVD 1988 of the lowest floor, including basement, of all new or substantially improved structures and to which the new or substantially improved structures have been floodproofed. The certification of the lowest floor shall be submitted to the Director of Building and Safety at the point of construction when the lowest floor elevation may be established and prior to the erection of the walls of any buildings. Such information shall be recorded and maintained by the Director of Building and Safety.

(e) Where floodproofing is utilized for a particular structure, obtain certification from a registered professional engineer or architect that the floodproofing methods are adequate in accordance with appropriate provisions of the city's building code;

(f) Where interpretation is needed as to the exact location of boundaries of the floodplain or floodprone area; for example, where there appears to be a conflict between a mapped boundary and actual field conditions, obtain the necessary interpretation from appropriate city engineering staff of the Department of Public Works and Utilities;

(g) In Zone A (no base flood elevations determined), require that proposed developments (including proposals for manufactured home parks and subdivisions) greater than either five acres or fifty lots include within such proposals detailed base flood elevation data based on an engineering study performed by a qualified engineer in accordance with FEMA approved methods for generating

detailed base flood elevations. The specific hydrologic and hydraulic methods to be used to generate base flood elevations and the data to be submitted are contained in Section 10.5 of the Flood Design Criteria. Upon completion of said study, data must be submitted to FEMA to obtain a Letter of Map Change based on the updated information. This provision shall not apply where the use of the property is not being changed and where there are no physical changes on the site which have the potential to increase the flood hazard.

(h) When base flood elevation data have not been provided on the FEMA Flood Insurance Rate Map, in an engineering study provided under subsection (g) above, or in other studies already completed or accepted by the City, obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, as criteria for requiring that new construction, substantial improvements, or other developments in the floodplain or floodprone area meet the standards of this chapter. (Ord. 18360 §4; May 10, 2004).

### **27.53.050 Permit Procedures.**

Application for a development permit shall be made to the Director of Building and Safety on forms furnished by him and may include, but not be limited to, the plans drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(a) Base flood elevation in NAVD 1988 datum. When utilizing National Geodetic Vertical Datum of 1929 (NGVD 1929) base flood elevations from FEMA floodplain maps, 0.50 feet shall be added to NGVD 1929 to obtain NAVD 1988, unless a more accurate conversion factor using an established conversion program is demonstrated to the satisfaction of the Director of Building and Safety.

(b) Elevation of the lowest floor, including basement, of all structures. All elevations shall be submitted in NAVD 1988.

(c) Elevation to which any nonresidential structure has been floodproofed. All elevations shall be submitted in NAVD 1988.

(d) Documentation and certification from a registered professional engineer or architect that the nonresidential floodproofed structure meets the floodproofing specifications set forth in the city's building code.

(e) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

(f) Limits of floodway, floodplain or floodprone area, and minimum flood corridor.

(g) A grading plan showing existing and proposed grades, location of channel and hydraulic cross-sections, with elevations in NAVD 1988 datum.

(h) The type and extent of the proposed use or development of the land which is located within the floodplain or floodprone area, along with such information as is necessary to determine the effect flood waters will have on such development and use and the effect such development and use may have upon the flood waters. All such information shall show the location of the proposed use, areas of habitation and employment, including the location, size, and floor elevation of any structures, the location and elevation of all parking areas, and the use, location, and elevations of all open land areas.

(i) Hydraulic cross sections, profiles, and summary report.

(j) In areas with no watershed master plans, existing and proposed water surface elevations for the 100-year flood event.

(k) In areas with watershed master plans, existing and proposed water surface elevations for the 2-, 10-, and 100-year flood event.

(l) If the proposed development is in the floodway, information, documentation and certification by a registered professional engineer demonstrating the development will cause no rise in the flood elevation as required by Section 10.2 of the Flood Design Criteria.

(m) If the proposed development is in the floodplain or floodprone area outside the floodway, information, documentation and certification by a registered professional engineer demonstrating the development will not result in any increase in the 100-year flood elevation greater than five hundredths of a foot (0.05') of rise as required by Section 10.2 of the Flood Design Criteria.

(n) The amount of fill material to be brought into the floodplain or floodprone area from outside the floodplain or floodprone area and the locations and volumes of cut and fill within the floodplain or floodprone area;

(o) Locations of compensatory storage, and information and certification by a registered professional engineer demonstrating that compensatory storage is hydrologically equivalent as required by Section 10.2 of the Flood Design Criteria.

(p) In areas with watershed master plans, a hydrologic study and report that includes existing and proposed curve numbers, times of concentration, areas, schematics, and other related information as appropriate.

(q) Sequencing information for encroachments into minimum flood corridors as required by Section 10.3 of the Flood Design Criteria.

(r) Sequencing information for stream crossing structures as required by Section 10.4 of the Flood Design Criteria.

(s) Reference to the subdivision or development permit when permit applications are submitted for individual structures on property that is part of a larger subdivision or development permit and information specified in subsections 27.53.050(f) through 27.53.050(r) has been previously provided, in lieu of including information specified in those subsections with the individual permit. (Ord. 18360 §5; May 10, 2004).

#### **27.53.055 Permit Expiration.**

Every floodplain permit, except as provided below, shall expire and become null and void two years following the date of issuance, regardless of the status of the permitted work. Before such work can be recommenced, a new permit shall be first obtained to do so.

Any permittee holding an unexpired permit may apply in writing for an extension of the time within which work must be completed. The Director of Building and Safety may extend the time for completion of the work for a period not exceeding one year upon a showing by the permittee that circumstances beyond the control of the permittee have prevented action from being taken to complete the work. No permit shall be extended more than once.

Any permit issued prior to the effective date of this ordinance shall expire and become null and void two years following the effective date of this ordinance, regardless of the status of the permitted work, and may not be extended by the Director of Building and Safety. Before such work can be recommenced, a new permit shall be first obtained to do so. (Ord. 18360 §6; May 10, 2004).

#### **27.53.060 Special Permits.**

The City Council of the City of Lincoln may, by special permit, in accordance with provisions set forth in Chapter 27.63 of this title:

(a) Grant variances from the requirements of this chapter which permit construction in a manner otherwise prohibited by this chapter where specific enforcement would result in unnecessary hardship. However, variances shall not be issued by the city within the selected floodway if any increase in flood levels during the base flood discharge would result.

(b) Grant requests for substantial improvements of existing residential and nonresidential structures that are not in conformity with the provisions of this chapter.

(c) Attach certain conditions to the special permit as it deems necessary to further the purposes of this chapter.

In passing upon such special permits, the city council shall consider that permits shall only be issued upon a determination that (i) they are the minimum necessary, considering the flood hazard, to afford relief; (ii) the granting will not result in increased flood heights, additional threats to public safety, extraordinary public expenses, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances; and (iii) the decision is based upon a showing of good and sufficient cause and a reasonable use of land involved.

Any applicant to whom a special permit is granted shall be given a written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. The Director of Building and Safety shall maintain all the records of special permits issued by the city council and report them to FEMA upon request. (Ord. 18360 §7; May 10, 2004).

#### **27.53.070 Pre-existing Uses.**

The following pre-existing uses will be allowed within the floodplain or floodprone areas:

(a) Continuation of pre-existing uses. The lawful use of a building and premises existing prior to the effective date of this ordinance may be continued although such use does not conform to the provisions hereof; provided, that no expansion, enlargement, change, or alteration shall be made except in conformance with Section 27.53.070(b) below.

(b) Substantial improvements of preexisting uses. No existing building and premises which is not in conformity with the provisions of this chapter shall be substantially improved unless it is done in conformity with the provisions of this chapter. A request for the substantial improvement of a pre-existing use which does not conform to the provisions of this chapter shall be processed through special permit procedures set forth in Section 27.53.060 of this chapter. (Ord. 18360 §8; May 10, 2004).

#### **27.53.080 Penalties for Violation.**

Violation of the provisions of this chapter or failure to comply with any of its requirements shall be punished in accordance with Chapter 27.81. (Ord. 18360 §9; May 10, 2004).

#### **27.53.090 Amendments.**

The regulations, restrictions, and boundaries set forth in this chapter may from time to time be amended, supplemented, changed, or appealed to reflect any and all changes in the National Flood Disaster Protection Act of 1973, in accordance with the procedures set forth in Chapter 27.81. The regulations of this chapter are in compliance with the National Flood Insurance Program regulations, as amended, and the 1983 Nebraska Flood Plains Regulations Act. (Ord. 18360 §10; May 10, 2004).