

Change of Zone 3331

ORDINANCE NO. _____

1 AN ORDINANCE amending Chapter 27.55 of the Lincoln Municipal Code,
 2 Flood Plain District, by amending Section 27.55.010 to adopt FEMA's September 21, 2001
 3 Flood Insurance Rate Map and FEMA's Flood Insurance Study for Lancaster County, Nebraska
 4 and Incorporated Areas as part of Chapter 27.55; by amending Section 27.55.020 to delete
 5 the definition for "Flood boundary and floodway map (FBFM)", to add definitions for "Flood
 6 Insurance Study" and "historic structure", to amend the definition of " Flood Insurance Rate
 7 Map" to refer to the September 21, 2001 map, and to amend the definition of "flood plain"
 8 to base the designated flood plain on the September 21, 2001 Flood Insurance Rate Map;
 9 amending Section 27.55.030 to add general standards for construction in the AO zone and
 10 to make other revisions to clarify language relating to the general standards; amending Section
 11 27.55.040 to add administrative provisions for the issuance of a development permit in Zone
 12 A and to make other revisions to clarify the administration of development within the flood
 13 plain; and repealing Sections 27.55.010, 27.55.020, 27.55.030, and 27.55.040 of the Lincoln
 14 Municipal Code as hitherto existing.

15 BE IT ORDAINED by the City Council of the City of Lincoln, Nebraska:

16 Section 1. That Section 27.55.010 of the Lincoln Municipal Code be amended
 17 to read as follows:

18 **27.55.010 Scope of Regulations.**

19 The regulations set forth in this chapter, or set forth elsewhere in this title when referred
 20 to in this chapter, are known as the flood plain ordinance. The ordinance shall apply to all

1 lands in the flood plain that are subject to a one percent or greater chance of flooding in any
2 given year, as designated by the Federal Emergency Management Agency (FEMA). The
3 September 21, 2001 official Flood Insurance Rate Map (FIRM) and Flood Insurance Study
4 (FIS) for Lancaster County, Nebraska and Incorporated Areas flood boundary and floodway
5 map (FBFM) and any revisions thereto are hereby adopted by reference and declared to be a
6 part of this ordinance.

7 Section 2. That Section 27.55.020 of the Lincoln Municipal Code be amended
8 to read as follows:

9 **27.55.020 Definitions.**

10 For the purpose of this chapter, the following words shall have the following meanings:

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

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

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

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

1 **Expansion to an existing manufactured home park or subdivision** shall mean the
2 preparation of additional sites by the construction of facilities for serving the lots on which the
3 manufactured homes are to be affixed (including the installation of utilities, the construction
4 of streets, and either final site grading or the pouring of concrete pads).

5 **Flood Insurance Study (FIS)** shall mean the Flood Insurance Study for Lancaster County,
6 Nebraska and Incorporated Areas published by FEMA in conjunction with the FIRM and
7 containing background data such as base flood discharges and water surface elevations used
8 to prepare the FIRM.

9 **~~Flood Insurance Rate Map (FIRM)~~** shall mean an official map of a community the
10 September 21, 2001 Flood Insurance Rate Map and any revisions thereto, on which FEMA has
11 delineated both the areas of special flood hazards and the risk premium zones applicable to
12 the community.

13 **~~Flood boundary and floodway map (FBFM)~~** shall mean an official map of a community,
14 on which FEMA has delineated the areas of 100-year flood and regulatory floodways. The
15 map provides a technical basis for regulatory purposes.

16 **Flood plain** shall mean those lands which are subject to a one percent or greater
17 chance of flooding in any given year. The designated flood plain for this chapter shall be
18 based on the areas of 100-year flood, or areas of special flood hazards, as shown on the
19 official Flood Insurance Rate Map or flood boundary and floodway map issued by FEMA
20 and shall include Special Flood Hazard Areas, zones A, AE, AH, AO, A99 and Floodways
21 zone A, zones A-1 through A-30, and floodway.

1 **Floodproofing** shall mean any combination of structural and nonstructural additions,
2 changes, or adjustments to structures which reduce or eliminate flood damage to real estate
3 or improved real property, water and sanitary facilities, structures and their contents.

4 **Floodway** shall mean the channel of a river or other watercourses and the adjacent land
5 areas that must be reserved in order to discharge the base flood without cumulatively
6 increasing the water surface elevation more than one foot.

7 **Historic structure** shall mean any structure that is: (a) Listed individually in the
8 National Register of Historic Places (a listing maintained by the Department of the Interior) or
9 preliminarily determined by the Secretary of the Interior as meeting the requirements for
10 individual listing on the National Register; (b) certified or preliminarily determined by the City
11 of Lincoln, a Certified Local Government (CLG), in consultation with the Nebraska State
12 Historic Preservation Officer (SHPO), as contributing to the historical significance of a locally
13 or nationally designated historic district; (c) Individually designated as a Landmark by the City
14 of Lincoln, a CLG, under the provisions of Chapter 27.57 of the Lincoln Municipal Code.

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

20 **Manufactured home** shall mean, for purposes of this chapter, a structure, transportable
21 in one or more sections, which is built on a permanent chassis and is designed for use with

1 or without a permanent foundation when attached to the required utilities. The term
2 "manufactured home" shall not include a "recreational vehicle."

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

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

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

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

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

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

- 19 (1) built on a single chassis;
20 (2) 400 square feet or less when measured at the largest horizontal
21 projections;

1 (3) designed to be self-propelled or permanently towable by a light duty
2 truck; and

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

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

7 **Start of construction** shall mean either the first placement of permanent construction
8 of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the
9 construction of columns, or any work beyond the stage of excavation, or the placement of a
10 manufactured home on a foundation. Permanent construction does not include land
11 preparation, such as clearing, grading, and filling; nor does it include the installation of streets
12 and/or walkways; nor does it include excavation for a basement, footings, piers or foundations
13 or the erection of temporary forms; nor does it include the installation on the property of
14 accessory buildings, such as garages or sheds not occupied as dwelling units or not as part of
15 the main structure. For a substantial improvement, the actual start of construction shall mean
16 the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or
17 not that alteration affects the external dimension of the building.

18 **Structure** shall mean, for flood plain management purposes, a walled and roofed
19 building, including a gas or liquid storage tank, that is principally above ground, as well as a
20 manufactured home.

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

4 **Substantial improvement** shall mean any reconstruction, rehabilitation, addition, or
5 other improvement of a structure, the cost of which equals or exceeds fifty percent of the
6 market value of the structure before the start of construction of the improvement. Substantial
7 improvement shall include structures which have incurred substantial damage, regardless of
8 the actual repair work performed. The term shall not, however, include either (i) any project
9 for improvement of a structure to correct existing violations of state or local health, sanitary,
10 or safety code specifications which have been identified by the local code enforcement official
11 and which are the minimum necessary to assure safe living conditions, or (ii) any alteration
12 of a historic structure, provided that the alteration will not preclude the structure's continued
13 designation of a historic structure.

14 Section 3. That Section 27.55.030 of the Lincoln Municipal Code be amended
15 to read as follows:

16 **27.55.030 Standards.**

17 The following shall be the standards to be followed in connection with the Flood Plain
18 District:

19 (a) General Standards:

20 (1) Until a floodway has been designated, no development or substantial
21 improvement may be permitted within the flood plain unless the applicant has demonstrated
22 that the proposed development or substantial improvement, when combined with all other

1 existing and reasonably anticipated developments or substantial improvements, will not
2 increase the water surface elevation of the 100-year flood more than one foot at any location.

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

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

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

20 (5) New ~~and or~~ replacement water supply systems and community sanitary
21 sewage systems and individual sewage disposal systems shall be designed to minimize or
22 eliminate infiltration of flood waters into the systems and discharges from the systems into

1 flood waters. Individual disposal systems shall be designed in accordance with the standards
2 set forth in Chapter 24.38 of the Lincoln Municipal Code.

3 (6) On-site waste disposal systems shall be located to avoid impairment to
4 them or contamination from them during flooding.

5 (7) The storage or processing of materials that are in time of flooding buoy-
6 ant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.

7 (8) Storage of other material or equipment may be allowed if not subject to
8 major damage by floods and firmly anchored to prevent flotation or if readily removable from
9 the area within the time available after the issuance of flood warning by appropriate
10 authorities.

11 (9) Filling, grading, and excavation may be allowed in the designated flood
12 plain under the following conditions:

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

16 (ii) Any fill to be deposited in the flood plain must be shown by the
17 applicant not to be a detriment to the general public as well as the surrounding land owners.

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

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

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

8 (vi) Excavation in the flood plain shall be done so that the land surface
9 is maintained in such a manner that surface waters do not collect and pond unless specifically
10 approved by the Director of Building and Safety.

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

21 (c) Nonresidential Construction. All new construction and substantial improve-
22 ments of commercial, industrial, and other nonresidential structures within the designated

1 flood plain shall either have the lowest floor, including basement, elevated at least one foot
2 above the base flood level or, together with attendant utility and sanitary facilities, be
3 floodproofed so that below the base flood level plus one foot the structure is watertight in ac-
4 cordance with the performance standards set forth in the city's building code. A registered
5 professional engineer or architect shall develop or review structural design, specifications, and
6 plans for the construction, and shall certify that the design and methods of construction meet
7 the watertight performance standards. The certification shall be provided to the city as set
8 forth in Section 27.55.040 of this chapter.

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

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

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

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

1 (e) Manufactured Home Parks and Subdivisions. All manufactured homes shall be
2 located in a manufactured home park or a manufactured home subdivision in accordance with
3 Sections 27.63.120 and 27.63.125 of this title. No manufactured home shall be located in a
4 manufactured home park or subdivision within the designated flood plain unless the following
5 conditions are met:

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

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

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

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

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

12 (5) The grade of land for manufactured home parks or subdivisions which
13 are situated within the designated flood plain shall be raised at least one foot above the base
14 flood elevation.

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

20 (1) If over-the-top ties are used, such ties shall be provided at each of the
21 four corners of the manufactured home, with two additional ties per side at intermediate

1 locations except that manufactured homes less than fifty feet in length may provide only one
2 additional tie per side;

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

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

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

9 (g) Recreational Vehicles:

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

11 (2) Shall be fully licensed and ready for highway use (on its wheels or
12 jacking system, is attached to the site only by quick disconnect type utilities and security
13 devices, and has no permanently attached additions); or

14 (3) Meet the requirements for manufactured homes.

15 (h) Floodways.

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

21 An exception to the above shall be permitted provided the applicant has
22 acquired by land rights purchase, flowage easement, or other legal arrangement the right to

1 increase the flood levels on all affected lands, and provided that before any permit is issued
2 the applicant submits a Federal Emergency Management Agency (FEMA) approved Conditional
3 Letter of Map Revision to the Director of Building and Safety. When such encroachment is
4 completed, a FEMA approved Letter of Map Revision must also be provided by the applicant.

5 (2) If the above provision is satisfied, all new construction and substantial
6 improvements shall comply with all other applicable provisions contained in Section
7 27.55.030.

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

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

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

19 (2) All new construction and substantial improvements of non-residential
20 structures shall:

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

4 (ii) Together with attendant utility and sanitary facilities be completely
5 floodproofed to or above that level so that any space below that level is watertight with walls
6 substantially impermeable to the passage of water and with structural components having the
7 capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Such
8 certification shall be provided to the official as set forth in Section 27.55.040(d).

9 (3) Adequate drainage paths around structures on slopes shall be required
10 in order to guide floodwaters around and away from proposed structures.

11 Section 4. That Section 27.55.040 of the Lincoln Municipal Code be amended
12 to read as follows:

13 **27.55.040 Administration.**

14 A development permit shall be required in conformance with the provisions of this
15 chapter. All new construction of residential and nonresidential structures or ~~land~~ other
16 development, including the placement of manufactured homes, within the designated flood
17 plain shall hereafter be in full compliance with the terms of this chapter and other applicable
18 regulations. All existing residential and nonresidential structures that are not in compliance
19 with the terms of this chapter shall be required to conform to these terms before substantial
20 improvements can be made. It shall be the duty of the Director of Building and Safety to
21 enforce this chapter. His duties shall include, but not be limited to:

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

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

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

11 (d) Require a registered professional engineer or surveyor to verify the actual
12 elevation in NAVD 1988 of the lowest floor, including basement, of all new or substantially
13 improved structures and to which the new or substantially improved structures have been
14 floodproofed. The certification of the lowest floor shall be submitted to the Director of
15 Building and Safety at the point of construction when the lowest floor elevation may be
16 established and prior to the erection of the walls of any buildings. Such information shall be
17 recorded and maintained by the Director of Building and Safety. Notwithstanding the above,
18 documents submitted before March 1, 2000 may be submitted in either city datum or NAVD
19 1988;

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

1 (f) Where interpretation is needed as to the exact location of boundaries of the
2 designated flood plain; for example, where there appears to be a conflict between a mapped
3 boundary and actual field conditions, obtain the necessary interpretation from appropriate city
4 engineering staff of the Department of Public Works and Utilities;

5 (g) When base flood elevation data have not been provided on the official map,
6 obtain, review, and reasonably utilize any base flood elevation and floodway data available
7 from a federal, state, or other source, as criteria for requiring that new construction, substantial
8 improvements, or other developments in the flood plain meet the standards of this chapter;

9 (h) In Zone A (no base flood elevations determined), require that proposed
10 developments (including proposals for manufactured home parks) greater than five acres
11 include within such proposals base flood elevation data, except that this shall not apply
12 where the use of the property is not being changed and where there are no physical changes
13 on the site which have the potential to increase the flood hazard.

14 Section 5. That Sections 27.55.010, 27.55.020, 27.55.030, and 27.55.040 of
15 the Lincoln Municipal Code as hitherto existing be and the same are hereby repealed.

16 Section 6. That this ordinance shall take effect and be in force from and after
17 its passage and publication according to law.

Introduced by:

Approved as to Form & Legality:

City Attorney

Staff Review Completed:

Administrative Assistant

Approved this ___ day of _____, 2001:

Mayor