



# Oregon

Theodore R. Kulongoski, Governor

## Department of Land Conservation and Development

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### NOTICE OF ADOPTED AMENDMENT

December 6, 2007



TO: Subscribers to Notice of Adopted Plan or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist *LgP 12-7-07*

SUBJECT: City of Ione Plan Amendment  
DLCD File Number 001-07

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. Copies of the adopted plan amendment are available for review at DLCD offices in Salem, the applicable field office, and at the local government office. This adoption was adopted by the City on November 13, 2007, and passed the 21-day appeal period from the date of the adoption.

#### Appeal Procedures\*

#### **DLCD DEADLINE TO APPEAL: Acknowledged under ORS 197.625 and ORS 197.830 (9)**

This amendment was submitted to DLCD for review prior to adoption with less than the required 45-day notice. Pursuant to ORS 197.625 if no notice of intent to appeal is filed within the 21-day period set out in ORS 197.830 (9), the amendment to the acknowledged comprehensive plan or land use regulation or the new land use regulation shall be considered acknowledged upon the expiration of the 21-day period.

Under ORS 197.830 (9) a notice of intent to appeal a land use decision or limited land use decision shall be filed not later than 21 days after the date the decision sought to be reviewed becomes final.

If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

**\*NOTE: THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS ADOPTED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE DATE SPECIFIED ABOVE.**

Cc: Doug White, DLCD Community Services Specialist  
Grant Young, DLCD Regional Representative  
Mark Darienzo, DLCD Floodplain / Natural Hazard Mapping Specialist  
Gayle Eynetich, City of Ione  
<paa> ya/



# Notice of Adoption

In person  electronic  mailed

DEPT OF

NOV 29 2007

LAND CONSERVATION  
AND DEVELOPMENT  
For DLCD Use Only

THIS FORM MUST BE MAILED TO DLCD  
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION  
PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18

Jurisdiction: **Ione**

Local file number:

Date of Adoption: **11/13/2007**

Date Mailed: **11/27/2007**

Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? **Select one**Date:

- Comprehensive Plan Text Amendment
- Land Use Regulation Amendment
- New Land Use Regulation
- Comprehensive Plan Map Amendment
- Zoning Map Amendment
- Other:

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

Does the Adoption differ from proposal? Please select one

No

Plan Map Changed from:

to:

Zone Map Changed from:

to:

Location:

Acres Involved:

Specify Density: Previous:

New:

Applicable statewide planning goals:

- 

Was an Exception Adopted?  YES  NO

Did DLCD receive a Notice of Proposed Amendment...

45-days prior to first evidentiary hearing?

Yes  No

If no, do the statewide planning goals apply?

Yes  No

If no, did Emergency Circumstances require immediate adoption?

Yes  No

DLCD file No. 001-07 (16508)

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

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Local Contact: **Gayle Eynetich**

Phone: (541) 422-7414 Extension:

Address: **PO Box 361**

Fax Number: **541-422-7179**

City: **Ione**

Zip: **97843-**

E-mail Address: **cityofione@centurytel.net**

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## **ADOPTION SUBMITTAL REQUIREMENTS**

This form **must be mailed** to DLCD **within 5 working days after the final decision**

per ORS 197.610, OAR Chapter 660 - Division 18.

1. **Send this Form and TWO Complete Copies** (documents and maps) of the Adopted Amendment to:  
**ATTENTION: PLAN AMENDMENT SPECIALIST**  
**DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT**  
**635 CAPITOL STREET NE, SUITE 150**  
**SALEM, OREGON 97301-2540**
2. **Electronic Submittals:** At least one hard copy must be sent by mail or in person, but you may also submit an electronic copy, by either email or FTP. You may connect to this address to FTP proposals and adoptions: **webserver.lcd.state.or.us**. To obtain our Username and password for FTP, call Mara Ulloa at 503-373-0050 extension 238, or by emailing **mara.ulloa@state.or.us**.
3. **Please Note:** Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.
4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.
6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.
7. **Need More Copies?** You can now access these forms online at **<http://www.lcd.state.or.us/>**. Please print on **8-1/2x11 green paper only**. You may also call the DLCD Office at (503) 373-0050; or Fax your request to: (503) 378-5518; or Email your request to **mara.ulloa@state.or.us** - **ATTENTION: PLAN AMENDMENT SPECIALIST**.

## **Town of Ione**

### **Flood Damage Prevention Ordinance 3-2007 Amendment to Zoning Ordinance 158**

#### **Section 1.0**

#### **AUTHORIZATION, FINDINGS OF FACT, PURPOSE, AND OBJECTIVES**

##### **1.1 Statutory Authorization**

The Legislature of the State of Oregon has in ORS 203.035 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Town of Ione does ordain as follows:

##### **1.2 Findings of Fact**

- (1) The flood hazard areas of the Town of Ione are subject to periodic inundation which 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.
- (2) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

##### **1.3 Statement of Purpose**

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
- (6) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- (7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and,
- (8) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

#### 1.4 Methods of Reducing Flood Losses

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- (1) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

### Section 2.0 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.

"Appeal" means a request for a review of the interpretation of any provision of this ordinance or a request for a variance.

"Area of Shallow Flooding" means a designated AO, or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident. AO is characterized as sheet flow and AH indicated ponding.

"Area of Special Flood Hazard" means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designations on maps always includes the letters A or V.

"Base Flood" means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood". Designation on maps always includes the letters A or V.

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

"Below-Grade Crawl Space" means an enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior

grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed 4 feet at any point.

“Breakaway Wall” means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

“Critical Facility” means facilities for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals police, fire and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste.

“Development” means any man-made change to improve 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 located within the special flood hazard.

“Elevated Building” means for insurance purposes, a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

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

“Flood or Flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters and/or
- (2) The unusual and rapid accumulation of runoff of surface waters from any source.

“Flood Insurance Rate Map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

“Flood Insurance Study” means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

“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.

“Lowest Floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance found at Section 5.2-1(2).

“Manufactured Home” means a structure, transportable in one or more sections, which is built on permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For flood plain management purposes the term “manufactured home” also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term “manufactured home” does not include park trailers, travel trailers, “recreational vehicle” and other similar vehicles.

“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” means structures for which the “start of construction” commenced on or after the effective date of this ordinance.

“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 street, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

“Recreational Vehicle” means a vehicle which is:

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

“Start of Construction” includes substantial improvement, and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include 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.

“Structure” means a walled and roofed building including a gas or liquid storage tank that is principally above ground.

“Substantial Damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

“Substantial Improvement” means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

- (1) before the improvement or repair is started, or
- (2) If the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

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 structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

“Variance” means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

“Water Dependent” means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

### **Section 3.0** **General Provisions**

#### **3.1 Lands To Which This Ordinance Applies**

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the Town of Ione.

#### **3.2 Basis For Establishing The Areas Of Special Flood Hazard**

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for the Town of Ione” dated 12/18/07, with accompanying Flood Insurance Maps is hereby



adopted by reference and declared part of this ordinance. The Flood Insurance Study is on file at City Hall, Ione. The best available information for flood hazard area identification as outlined in Section 4.3-2 shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under section 4.3-2.

### 3.3 Penalties for Noncompliance

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$250.00 for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the Town of Ione from taking such other lawful action as is necessary to prevent or remedy any violation.

### 3.4 Abrogation and Greater Restrictions

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

### 3.5 Interpretation

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

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and,
- (3) Deemed neither to limit or repeal any other powers granted under State statutes.

### 3.6 Warning and Disclaimer of Liability

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the Town of Ione, any officer or employee thereof, or the Federal Insurance Administration, for any flood damaged that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

## **Section 4.0** **Administration**

### 4.1 Establishment of Development Permit

#### 4.1-1 Development Permit Required

A development permit shall be obtained before construction or development begins in any area of special flood hazard established in Section 3.2. The permit shall be for all structures including manufactured homes, as set forth in the "Definitions", and for all development including landfill and other activities, also set forth in the "Definitions".

#### 4.1-2 Application for Development Permit

Application for a development permit shall be made on forms furnished by the Town of Ione and may include but not be limited to plans in duplicate 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:

- (1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- (2) Elevation in relation to mean sea level to which any structure has been flood-proofed;
- (3) Certification by a registered professional engineer or architect that the flood-proofing methods for any nonresidential structure meet the flood-proofing criteria in Section 5.2-2; and
- (4) Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

#### 4.2 Designation of the City Council of the Town of Ione

The City Council is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

#### 4.3 Duties and Responsibilities of the City Council

Duties of the City Council shall include, but not be limited to:

##### 4.3-1 Permit Review

- (1) Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
- (2) Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or Local governmental agencies from which prior approval is required.
- (3) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 5.4 (1) are met.

##### 4.3-2 Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 3.2, Basis for Establishing the Areas of Special Flood Hazard, the City Council obtain, review, and reasonable utilize any state or other source, in order to administer Sections 5.2 Specific Standards and 5.4 Floodways.

4.3-3 Information to be Obtained and Maintained

- (1) Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 4.3-2, obtain and record the actual elevation (in relation to mean sea level) to which the structure has been elevated or flood-proofed, and
- (2) For all new or substantially improved flood proofed structures:
  - a. Verify and record the actual elevations (in relation to man area level), and
  - b. Maintain the flood proofing certifications required in Section 4.1(3).
- (3) Maintain for public inspection all records pertaining to the provisions of this ordinance.

4.3-4 Alteration of Watercourses

- (1) Notify adjacent communities and the Department of Land Conservation and Development and other appropriate state and federal agencies prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
- (2) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

4.3-5 Interpretation of FIRM Boundaries

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions.) The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation. Such appeal shall be granted consistent with the standards of Section 60.0 of the rules and regulations of the National Flood Insurance Program (44 CFR 59-76).

4.4 Conditions for Variances

- (1) Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to 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 4.4-5(i-iii) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
- (2) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the Statewide Inventory of Historic Properties, without regard to the procedures set forth in this section.

- (3) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
- (4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (5) Variances shall only be issued upon:
  - i. A showing of good and sufficient cause;
  - ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
  - iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety; extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in Section 4.1-4(4), or conflict with existing local laws or ordinances.
- (6) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in residential neighborhoods. As such, variances from the flood elevations should be quite rare.
- (7) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of flood proofing than watertight or dry-flood proofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except 4.4-2(1) and otherwise complies with Sections 5.1-1 and 5.1-2 of the General Standards.
- (8) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

## **Section 5.0** **Provisions for Flood Hazard Reduction**

### **5.1 General Standards**

In all areas of special flood hazards, the following standards are required:

#### **5.1-1 Anchoring**

- (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (2) All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA's "manufactured

Home Installation in Flood Hazard Areas” guide book for additional techniques).

5.1-2 AH Zone Drainage

Adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

5.1-3 Construction Materials and Methods

- (1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- (3) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulation with the components during conditions for flooding.

5.1-4 Utilities

- (1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and,
- (3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

5.1-5 Subdivision Proposals

- (1) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
- (3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage, and,
- (4) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

5.1-6 Review of Building Permits

Where data is not available either through the Flood Insurance Study or from another authoritative source (Section 4.3-2), Applications for building permits shall be reviewed to assure that proposed construction

will be reasonably safe from flooding. The test of reasonableness is a local judgment that includes use of historical stat, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

## 5.2 Specific Standards

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 3.2, "Basis For Establishing The Areas Of Special Flood Hazard" or Section 4.3-2, "Use Of Other Base Flood Data", the following provisions are required:

### 5.2-1 Residential Construction

- (1) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation.
- (2) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or 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 criteria:
  - a. 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 of flooding shall be provided.
  - b. The bottom of all openings shall be no higher than one foot above grade.
  - c. Openings may be quipped with screens, louvers, or other devices provided that they permit the automatic entry and exit of floodwaters.

### 5.2-2 Nonresidential Construction

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated at or above the level of the base flood elevation; or together with attendant utility and sanitary facilities, shall;

- (1) Be flood proofed so that below the flood level the structure is watertight with walls substantially impermeable to the passage of water;
- (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design specifications and plans. Such certifications shall be provided to the official as set forth in Section 4.3-3(2);

- (4) Nonresidential structures that are elevated, not flood proofed, must meet the same standards for space below the lowest floor as described in 5.2-1(2);
- (5) Applicants flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood proofed level (e.g. a building constructed to the base flood level will be rated as one foot below that level).

#### 5.2-3 Manufactured Homes

- (1) All manufactured homes to be placed or substantially improved 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;
  - (d) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood;

shall be elevated on a permanent foundation such that the lowest floor of the manufactured homes elevated one foot above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

- (2) Manufactured homes to be placed or substantially improved on sited in an existing manufactured home park or subdivision within Zones A1-30, AH, and AE on the community's FIRM that are not subject to the above manufactured home provisions be elevated so that either:
  - (a) The lowest floor of the manufactured home is elevated one foot above the base flood elevation, or
  - (b) The manufactured home chassis is supported by reinforced piers or there 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 designed foundation system to resist flotation, collapse, and lateral movement.

#### 5.2-4 Recreational Vehicles

Recreational vehicles placed on sites are required to either:

- (1) Be on the site for fewer than 180 consecutive days,
- (2) 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 of 5.2-3 above and the elevation and anchoring requirements for manufactured homes.

#### 5.3 Before Regulatory Floodway

In areas where a regulatory floodway has not been designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated

that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

#### 5.4 Floodways

Located within the areas of special flood hazard established in Section 3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- (1) Prohibit encroachments, including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) If Section 5.3(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 5.0, "Provisions for Flood Hazard Reduction".

#### 5.5 Standards For Shallow Flooding Areas (AO Zones)

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

- (1) New construction and substantial improvements of residential structures and manufactured homes within AO zones shall have the lowest floor (including basement) elevated above the highest grade adjacent to the building, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).
- (2) New construction and substantial improvements of nonresidential structures within AO zones shall either:
  - (a) Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or
  - (b) Together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is water tight with walls substantially impermeable to the passage of water and that structural component having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as in section 5.2-2(3).



- (3) Require adequate drainage paths around structures on slopes to guide floodwaters around and way from proposed structures.
- (4) Recreational vehicles placed on sites within AO Zones on the community's FIRM either:
  - (a) Be on the site for fewer than 180 consecutive days;
  - (b) 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
  - (c) Meet the requirements of section 5.4 above and the elevation and anchoring requirements for manufactured homes.

#### 5.6 Below-Grade Crawl Spaces

Below-Grade crawlspaces are allowed subject to the following standards as found in FEMA Technical Bulletin 11-01, *Crawlspace Construction for Buildings Located in Special Flood Hazard Areas*:

- (1) The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required openings stated in Section B below. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than five (5) feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer. Other types of foundations are recommended for these areas.
- (2) The crawlspace is an enclosed area below the base flood elevation (BFE) and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vet opening can be no more than one (1) foot above the lowest adjacent exterior grade.
- (3) Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottom of joists and all insulation above BFE.
- (4) Any building utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.
- (5) The interior grade of a crawlspace below the BFE must not be more than two (2) feet below the lowest adjacent exterior grade.
- (6) The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed four (4) feet at any point. The height limitation is the maximum

allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas.

- (7) There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated piped, drainage tiles or gravel or crushed stone drainage by gravity or mechanical means.
- (8) The velocity of floodwaters at the site should not exceed five (5) feet per second for any crawlspace. For velocities in excess of five (5) feet per second for any crawlspace. For velocities in excess of five (5) feet per second, other foundation types should be used.

For more detailed information refer to FEMA Technical Bulletin 11-01.

There is a charge added to the insurance basic policy premium for a below-grade crawlspace.

#### 5.7 Critical Facility

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Flood-proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

**Passed by the City Council on: November 13<sup>th</sup>, 2007**

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