

**ORDINANCE 2847**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE OSWEGO AMENDING LOC SECTIONS 50.05.011, 50.07.003, 50.07.004, 50.08.001, 50.09.003, 50.10.003.2, AND LOC 42.03.025, REGARDING FLOOD MANAGEMENT AMENDMENTS TO CONFORM TO THE NATIONAL FLOOD MANAGEMENT INSURANCE PROGRAM; AND ADOPTING FINDINGS (LU 20-0005)**

WHEREAS, the State of Oregon has in ORS 197.175 delegated the responsibility to local governmental units to adopt floodplain management regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, the flood hazard areas of City of Lake Oswego are subject to periodic inundation which may result 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;

WHEREAS, these flood losses may be caused by the cumulative effect of obstructions in special flood hazard areas which increase flood heights and velocities, and when inadequately anchored, cause damage in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to flood loss;

WHEREAS, by continuation of the Flood Management Area designation and mapping, a purpose of this ordinance is to notify potential buyers that the property is in a special flood hazard area;

WHEREAS, by continuation of the Flood Management Area designation and mapping, a purpose of this ordinance is to notify those who occupy special flood hazard areas that they assume responsibility for their actions;

WHEREAS, by adoption of this ordinance the City will allow property owners within the Flood Management Area to continue to participate in and maintain eligibility for flood insurance and disaster relief;

WHEREAS, in order to accomplish its purposes, this ordinance amendment and the existing provisions of LOC Ch. 50 includes methods and provisions for:

- A. Restricting or prohibiting development which is 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;
- B. Requiring that development vulnerable to floods, including facilities which serve such development, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage;
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

WHEREAS, the administration, implementation, and enforcement of the Flood Management Overlay District, LOC 50.05.011, is assigned by LOC 50.01.003.2 and .3, 50.07.001, 50.07.002 and 50.07.003, to the City Manager and designated officer or employee, and to designated hearing / decision bodies upon applications for development, as provided and required under Oregon law, specifically ORS Ch. 197 and 227; and

WHEREAS, pursuant to the requirement established in ORS Ch. 455 that the Building Official of Lake Oswego administers and enforces the State of Oregon Specialty Codes, the City Council of Lake Oswego does hereby acknowledge that the Oregon Specialty Codes contain certain provisions that apply to the design and construction of buildings and structures located in special flood hazard areas. Therefore, this ordinance is intended to be administered and enforced in conjunction with the Oregon Specialty Codes; and

WHEREAS, the 2019 State of Oregon Model Flood Hazard Management Ordinance has been prepared by the State of Oregon Department of Land Conservation and Development (DLCD) and has been reviewed and approved by Federal Emergency Management Administration (FEMA) Region X, and adoption of the model ordinance language provided will ensure compliance with the minimum standards for participation in the National Flood Insurance Program (NFIP); and

WHEREAS, notice of the public hearing for consideration of this Ordinance was duly given in the manner required by law; and

WHEREAS, the Planning Commission has recommended that LU 20-0005 be approved by the City Council; and

WHEREAS, a public hearing on LU 20-0005 was held before the City Council of the City of Lake Oswego on January 4, 2022.

The City of Lake Oswego ordains as follows:

**Section 1.** The City Council hereby adopts the Findings and Conclusions (LU 20-0005) attached as Attachment A.

**Section 2.** LOC 42.03.025, 50.05.011, 50.07.003, 50.07.004, 50.08.001, 50.09.003 and 50.10.003.2 are hereby amended as follows (new text shown in double-underlined type; deleted text shown in ~~striketrough~~ type) as shown in Attachment B.

**Section 3. Severability.** This ordinance and the various parts thereof are hereby declared to be severable. If any section clause, sentence, or phrase of the Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this Ordinance.

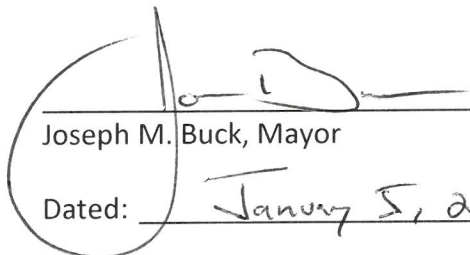
Enacted at the regular meeting of the City Council of the City of Lake Oswego held on the 4th day of January, 2022.

AYES: Mayor Buck, Rapf, Manz, Mboup, Wendland, Nguyen, Verdick

NOES: None

ABSTAIN: None

EXCUSED: None

  
\_\_\_\_\_  
Joseph M. Buck, Mayor  
Dated: January 5, 2022

ATTEST:

  
\_\_\_\_\_  
Kari Linder, City Recorder

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Jason Loos, City Attorney

BEFORE THE CITY COUNCIL

OF THE CITY OF LAKE OSWEGO

A REQUEST FOR AMENDMENTS TO  
COMMUNITY DEVELOPMENT CODE  
SECTIONS 50.05.011, 50.07.003,  
50.07.004, 50.08.001, 50.003.2 AND  
STREET DESIGN STANDARDS SECTION  
42.03.025 TO CONFORM TO THE  
NATIONAL FLOOD INSURANCE  
PROGRAM (Ordinance 2847)

LU 20-0005

FINDINGS & CONCLUSIONS

**NATURE OF PROCEEDINGS**

This matter came before the Lake Oswego City Council on the recommendation of the Planning Commission for legislative amendments to the Community Development Code Sections LOC 50.05.011 (Flood Management Area), 50.07.003 (Review Procedures), 50.07.004 (Additional Submission Requirements), and 50.08.001 (Introduction/Variances) 50.10.003.2 (Definitions), and to LOC 42.03.025 (Street Design Standards), to conform to the National Flood Insurance Program.

**HEARINGS**

The Planning Commission held a public hearing and considered this application at its meeting held on September 27, 2021 and October 11, 2021. The City Council held a public hearing to consider the Planning Commission's recommendation on January 4, 2022.

**CRITERIA AND STANDARDS**

A. City of Lake Oswego Comprehensive Plan

Land Use Planning Section D – Land Use Administration

Policy D-1

Community Culture – Civic Engagement

Policies 1, 2, 3, 4 and 5

1 Community Health and Public Safety (Goal 7)

2 Section A: General Hazard Policies

3 Policies 1, 2, and 5

4 Section B Flood Hazard Policies

5 Policies B-1, B-2 and B-4

6 B. Metro Urban Growth Management Functional Plan

7 Title 4: Protection of Employment Areas, Metro Code Section 3.07.440

8 C. Other Statewide Planning Goals

9 Goal 1: Citizen Involvement

10 Goal 2: Land Use Planning

11 Goal 7 Natural Hazards

12 D. City of Lake Oswego Community Development Code

13 LOC 50.07.003.1.b Burden of Proof

14 LOC 50.07.003.7 Appeals

15 LOC 50.07.003.3 Notice of Public Hearing

16 LOC 50.07.003.4 Hearings before a Hearings Body

17 LOC 50.07.003.16.a Legislative Decision Defined

18 LOC 50.07.003.16.b Criteria for Legislative Decisions

19 LOC 50.07.003.16.c Required Notice to DLCD

20 LOC 50.07.003.16.d Planning Commission Recommendation Required

21 LOC 50.07.003.16.e City Council Review and Decision

22 **FINDINGS AND REASONS**

23 As findings supporting its decision, the City Council incorporates the Planning  
24 Commission Staff Report dated September 16, 2021, the Planning Commission Memo  
25 dated October 7, 2021 and the Council Report dated December 22, 2021 (with all  
26 exhibits attached thereto).

Page 2 – FINDINGS & CONCLUSIONS (LU 20-0005 / ORDINANCE 2847)

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**CONCLUSION**

The City Council concludes that LU 20-0005 complies with all applicable criteria and should be approved. The Council also concludes that proposed Ordinance 2847, which implements LU 20-0005, should be enacted.

AYES: Mayor Buck, Rapf, Manz, Mboup, Wendland, Nguyen, Verdick

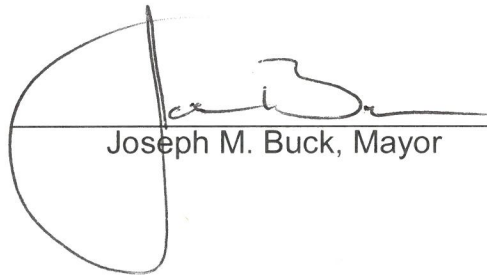
NOES: None

ABSENT: None

ABSTAIN: None

EXCUSED: None

DATED this 4th day of January, 2022.



Joseph M. Buck, Mayor

ATTEST:



Kari Linder, City Recorder

APPROVED AS TO FORM:



Jason Loos, City Attorney

**42.03.025 Standards Generally; Criteria.**

1. The following factors shall be considered in arriving at the design of a particular roadway through application of the standards set forth in this Chapter:

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4. Flood Management. The Flood Management Area standards of LOC 50.05.011, including variance standards, if applicable to roadways, are hereby incorporated. Roadway development shall comply with the Flood Management Area standards.

## **50.05.011 FLOOD MANAGEMENT AREA**

### **1. APPLICABILITY**

This section ~~shall apply~~ applies to the lands ~~all development~~ within the "flood management area" and is applied when development occurs within the "flood management area." All development within special flood hazard areas ("flood management area") is subject to the terms of this Section 50.05.011 and other applicable regulations. This section shall apply to all development within the "flood management area," except if a development or a parcel is the subject of a Letter of Map Amendment (LOMA) or Letter of Map Revision – Fill (LOMR-F) issued by the Federal Emergency Management Agency (FEMA), at the request of the property owner. A development permit shall be obtained before construction or development begins within any area horizontally within the mapped Flood Management Area as defined in LOC 50.05.011.3 Definitions, and as the referenced maps are amended per LOC 50.05.011.4 Map Administration. The development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in LOC 50.05.011.3 Definitions and 50.10.003.2 Definition of Terms, including fill and other development activities.

### **2. PURPOSE; ABROGATION; RULES OF INTERPRETATION; WARNING; DISCLAIMER OF LIABILITY**

**a. Purpose.** It is the purpose of this section to promote public health, safety, and general welfare, and to minimize public and private losses due to flooding in flood hazard areas by provisions designed to:

- aj. Protect human life and health ~~Promote the public health, safety and general welfare;~~
- ii. Notify potential buyers that the property is in a special flood hazard area; and
- ei. Participate in and maintain eligibility for flood insurance and disaster relief. ~~Maintain eligibility of properties within the City to participate in the National Flood Insurance Program.~~

#### **b. Abrogation**

In addition to LOC 50.01.002.4, LOC 50.05.011 is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where LOC 50.05.011 and another code provision, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

#### **c. Interpretation**

In the interpretation and application of this LOC 50.05.011, all provisions shall be:

- i. Considered as minimum requirements;
- ii. Liberally construed in favor of the City; and
- iii. Deemed neither to limit nor repeal any other powers granted under state statutes.

#### **d. Warning**

The degree of flood protection required by LOC 50.05.011 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. These flood management standards do 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.

**e. Disclaimer of Liability**

LOC 50.05.011 shall not create liability on the part of the City of Lake Oswego, any officer or employee thereof, or the Federal Insurance Administrator for any flood damages that result from reliance on the provisions of LOC 50.05.011 or any administrative decision lawfully made hereunder.

**3. DEFINITIONS**

Unless specifically defined below, words or phrases used in LOC 50.05.011 shall be interpreted so as to give them the meaning they have in common usage. For purposes of this article LOC 50.05.011, the following definitions shall apply:

**Appurtenant Structure**

Appurtenant structure means a structure that is on the same parcel or lot as the principal structure and the use of which is incidental to the use of the principal structure. [Note: Also referred to as Accessory Structure in other articles within this Code.]

**Area of Shallow Flooding**

A designated Zone AO, AH, AR/AO or AR/AH on the Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three ft. where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

**Area of Special Flood Hazard**

The land in the floodplain subject to a 1% or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, and AR. "Special flood hazard area" is synonymous in meaning and definition with the phrase "area of special flood hazard".

**Base flood**

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

**Base flood elevation (BFE)**

The elevation to which floodwater is anticipated to rise during the base flood, per FEMA designation.

**Breakaway wall**

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.

**Crawlspace (below-grade)**

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 ft. at any point.

**Design Flood Elevation (LODFE)**

One ft. above either the base flood elevation or the 1996 Flood Inundation Areas (Map D, below), whichever is higher.

**a.—Filling (fill)**

~~A deposit of material by artificial means, generally for purposes of development or redevelopment. Fill material includes, but is not limited to, sand, gravel, soil, rock, and inorganic building materials. See definition of "fill" in LOC 50.10.003.2.~~

**b.—Flood or Flooding**

A general and temporary condition of partial or complete inundation of normally dry land area from: \_\_\_\_\_

~~a. the~~ The overflow of inland or tidal waters; ~~or~~

~~b. the~~ The unusual and rapid accumulation of runoff of surface waters from any source; ~~or~~

~~c.~~  Mudslides (i.e., mudflows) which are proximately caused by flooding due to unusual and rapid accumulation of runoff of surface waters from any source and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

~~The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding due to overflow of inland or tidal waters.~~

**c.—Flood, Base**

~~The flood having a 1% chance of being equaled or exceeded in any given year. The "base flood" is also known as the "100-year flood."~~

**d.—Flood Boundary and Floodway Map**

~~The official FEMA map of a community, issued by the Federal Insurance Administrator, where the boundaries of the floodway and floodway fringe have been designated.~~

**e.—Flood Hazard Area, Special or "Area of Special Flood Hazards"**

~~"Area of special flood hazard" shall be defined as stated in 44 CFR Section 59.1:~~

~~The land in the floodplain within a community subject to a 1% or greater chance of flooding in any given year or as such definition is amended by the Federal Insurance Administration after June 3, 2008. The term "special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard."~~

~~The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed ratemaking has been completed in preparation for publication of the Flood Insurance Rate Map, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V.~~

**f.—Flood Insurance Rate Map (FIRM)**

The official map on which the Federal Insurance Administrator has delineated both the areas of special flood hazards and the risk premium zones applicable to ~~the community Lake Oswego.~~ A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

**Flood Insurance Study (FIS)**

An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

**g.—Flood Management Area**

The areas depicted on the Flood Management Area Maps, Figures 50.05.011-A to 50.05.011-D. (In the event the maps show the same general area, the mapped areas that have the higher mapped flood elevation shall prevail.) The Flood Management Area Map shows:

**a.i.—FEMA Mapped Areas:**

i. ~~(1)~~—The areas of special flood hazard, as identified by the Federal Insurance Administration-Administrator in a scientific and engineering report entitled "The Flood Insurance Study for Clackamas County, OR and Incorporated Cities" dated ~~June 17, 2008,~~ January 18, 2019;

ii. ~~(2)~~—FIRM, as issued by FEMA at the time of last amendment of the Flood Management Area Map was effective pursuant to LOC 50.05.011.4; and

~~(3) —The Flood Boundary and Floodway Maps created for the National Flood Insurance Program by the FEMA;~~

which are hereby adopted by reference and declared to be a part of this article.

**b. ~~1996 Flood Areas~~**

ii.—The area inundated during the February 1996 flood along the Willamette River, ~~the Tualatin River,~~ and the Oswego Canal to the south of Bryant Road as shown on Figure 50.05.011-D, (which is based on the flood elevation data available at the Engineering Dept.) The 1996 Flood Areas will be used for regulatory purposes provided that the data is at least as restrictive as the FEMA Mapped Areas, subsection a. above.

**h.—Flood-Proofing**

Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents ~~To make a structure 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.~~

**i.—Floodway**

The area within the floodplain which includes the ~~The~~ channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height, as determined in the Flood Insurance Study ~~one ft.~~ Also referred to as "Regulatory Floodway."

**j.—Floodway Fringe**

The area of the floodplain lying outside the floodway.

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Note to Code Publishing: The Flood Management Area maps that are Figures 50.05.011-A to 50.05.011-D are currently at the end of the Definition section, and they should stay at the end. The Figures should follow the definition of Watercourse.

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**Functionally dependent use**

A use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long term storage or related manufacturing facilities.

**Hazardous material:** Hazardous material is any of the following:

- a. Hazardous waste as defined in ORS 466.005;
- b. Radioactive waste as defined in ORS 469.300, radioactive material identified by the Energy Facility Siting Council under ORS 469.605 and radioactive substances defined in ORS 453.005
- c. Communicable disease agents as regulated by the Health Division under ORS Chapter 431 and 433.010 to 433.045 and 433.106 to 433.990;
- d. Hazardous substances designated by the United States Environmental Protection Agency (EPA) under section 311 of the Federal Water Pollution Control Act, P.L. 92-500, as amended;
- e. Substances listed by the United States EPA in section 40 of the Code of Federal Regulations, Part 302 – Table 302.4 (list of Hazardous Substances and Reportable Quantities) and amendments;
- f. Material regulated as a Chemical Agent under ORS 465.550;
- g. Material used as a weapon of mass destruction, or biological weapon;
- h. Pesticide residue;
- i. Dry cleaning solvent as defined by ORS 465.200(9).

**Highest adjacent grade**

The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

**Historic Structure**

A Landmark or Contributing Resource structure, or National Register Property, as defined in LOC 50.10.003.2 Definitions.

**Lowest floor**

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.

**Manufactured dwelling**

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 dwelling" does not include a "recreational vehicle" and is synonymous with "manufactured home".

**Manufactured dwelling park or subdivision**

A parcel (or contiguous parcels) of land divided into two or more manufactured dwelling lots for rent or sale.

**Mean Sea Level**

"Mean sea level" and other references to elevations are based on the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on Lake Oswego Flood Insurance Rate Map are referenced.

**New construction**

New construction means structures for which the "start of construction" commenced on or after October 13, 1981 and includes any subsequent improvements to such structures.

**Oswego Lake**

Oswego Lake includes the main lake and all embayments and canals that have the same elevation as the main lake.

**Recreational vehicle**

A vehicle that is:

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

**Special flood hazard area**

See "Area of special flood hazard" for this definition.

**Start of Construction**

Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. 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 dwelling on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or

other structural part of a building, whether or not that alteration affects the external dimensions of the building.

**Structure:**

A walled and roofed building, including a gas or liquid storage tank, principally above ground, as well as a manufactured dwelling.

**Substantial damage**

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

**Substantial improvement**

Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

- a. 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 city enforcement official and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

**Variance**

A grant of relief pursuant to LOC 50.05.011.8 from the terms of a floodplain management regulation.

**Watercourse**

A bed or channel of a riverine drainageway such as a river, stream, creek, or brook.

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Note to Code Publishing: The maps that are Figures 50.05.011-A to 50.05.011-D are currently at the end of the Definition section, and they should stay at the end. The Figures should follow the definition of Watercourse.

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**4. MAP ADMINISTRATION**

The purpose of this section is to ~~provide~~outline the a-process for amending the Flood Management Area Map, Figures 50.05.011-A to 50.05.011-D.

**a. Revision of FIRM (Figures 50.05.011-A to 50.05.011-C).**

~~i.~~—If amendments to the Flood Management Area Map are due to changes to the Special Flood Hazards Areas depicted on Flood Insurance Rate Maps of the National Flood Insurance Program or by Letter of Map Revision [but not including Letter of Map Revision – Fill (LOMR-F)], the amendment shall be

dependent upon successful compliance with the map and revision process of the National Flood Insurance Program (~~40-44~~ CFR 65).

~~ii.~~—When an applicant proposes to FEMA amends revise the FIRM, including as a result of a Letter of Map Revision (LOMR) but not including by a LOMR-F, a public hearing shall be held, and notice given in the same manner as for ~~a map error in~~ LOC 50.05.011.4.b. The amendment of the Flood Management Area Map shall be recommended by the Planning Commission, and amended by the City Council upon finding that the map revision process of the National Flood Insurance Program (~~40-44~~ CFR 65) was followed and that FEMA has ~~amended revised~~ the FIRM by the LOMR process.

**b. Revision of 1996 Flood Map Error (Figure 50.05.011-D)**

~~i. Within 90 days of receiving information establishing a possible error in the existence or location of a flood management area, the City Manager shall provide notice of a public hearing at which the Planning Commission will review the error for compliance with this section. Notice of the hearing shall be sent to property owners who have property that will be included or withdrawn from the flood management area as a result of the change. Notice shall also be sent to owners of property within 100 ft. of the affected properties. Following the public hearing, the Planning Commission shall make a recommendation to the City Council as to whether the flood management area boundaries should be changed. When an applicant proposes revision of the 1996 Flood Map (Figure 50.05.011-D), the application shall be processed per LOC 50.07.003.16 either as a legislative decision or as a quasi-judicial decision. The criteria to adopt the revision shall be as provide in subsection ii and provisions of LOC 50.07.003.16.b, including applicable Policies in Sections A and B of the Natural Hazards section of the Comprehensive Plan and LCDC Goal 7.~~

The manner of public notice, and of public hearing before the Planning Commission and City Council shall be:

(1) Legislative Decision: See LOC 50.07.003.16

(2) Quasi-Judicial Decision: As provided for major developments in LOC 50.07.003.15.c.i(1-3).

~~ii. The City Council shall amend the 1996 Flood Management Area Map (Figure 5005.011-D) shall be revised if the an information applicant demonstrates that there is an error in the existence or location of the 1996 Flood Areas error on the Flood Management Area Map.~~

A public hearing shall be held before the Planning Commission for recommendation to the City Council. The City Manager shall provide notice of the public hearing at which the Planning Commission will review the error for compliance with this section. Notice of the hearing shall be sent to property owners who have property that will be included or withdrawn from the Flood Management Area as a result of the change. Notice of the public hearing shall be given in the manner required by LOC 50.07.003.16.e, except that notice shall also be mailed to owners of property within 100 ft. of the affected properties. Following the public hearing, the Planning Commission shall make a recommendation to the City Council as to whether the 1996 Flood Map boundaries should be changed.

**5. DEVELOPMENT REVIEW**

**a. Authority and Criteria**

Development review is required for all development proposed within the flood management area. The reviewing authority shall review all development permits to:

- i. Determine that the permit requirements of this LOC 50.05.011 have been satisfied;
- ii. Determine that all other required local, state, and federal permits have been obtained and approved.
- iii. Determine if the proposed development is located in a floodway. If located in the floodway assure that the floodway provisions in Floodway, subsection 6.b.xii Encroachment Within Floodway below, are met; and
- iv. Determine if the proposed development is located in an area where Base Flood Elevation (BFE) data is available either through the Flood Insurance Study (FIS) or from another authoritative source. If BFE data is not available then ensure compliance with the provisions of LOC 50.07.004.13.b; and
- v. Provide to building official the Design Flood Elevation (LODFE) applicable to any structure requiring a development permit.
- vi. Determine if the proposed development qualifies as a substantial improvement as defined in subsection 3 Definitions.
- vii. Determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in subsection 6.b.viii Alteration of Watercourse.
- viii. Determine if the proposed development activity includes the placement of fill or excavation.

~~The City Manager shall review all permit applications for development within the flood management area as set forth in LOC Article 50.07, Review and Approval Procedures. Development within a flood management area may be allowed only when the following criteria are satisfied:~~

~~i. Compliance with Standards~~

~~The proposed development shall be consistent with the Flood Management Area Development Standards (LOC 50.05.011.7) and the Standards for Construction (LOC 50.05.011.8). If proposed in the floodway, the development shall also be consistent with the encroachment within floodway standards (LOC 50.05.011.6).~~

~~ii. Compliance with Procedures and Submittal Requirements~~

~~The development proposal shall comply with the procedures and submittal requirements of this section and all other relevant sections of the City Code.~~

~~iii. Agency Permit Review~~

~~The applicant shall demonstrate that all necessary permits have been obtained from the federal, state, or local governmental agencies from which prior approval is required. If applications for the necessary permits have been made but the permits have not yet been issued, the City may condition its approval on successful acquisition of the required permits.~~

**b. Records**



The City shall maintain, for public inspection all, the records pertaining to the provisions of this LOC 50.05.011 and the submission documents required by LOC 50.07.004.13. of proceedings subject to this section.

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**Note to Code Publishing:** Add Cross-Reference:

**Cross-Reference:** See Flood Management Area submittal requirements in LOC 50.07.004.13.

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**c. Submittal Requirements**

Applications for development permits within the Flood Management Area shall comply with the following submittal requirements:

**i. Information Required – Habitable Structures**

For development of a habitable structure, the applicant shall submit a site plan and supporting information. Application materials shall be verified by an on-site survey by a registered professional land surveyor or registered professional engineer and, at a minimum, shall provide survey information for the portion of the subject property within the flood management area. The City Manager may require submittal of the following supporting information for the subject property:

- ~~(1) The boundary lines for the base flood and floodway;~~
- ~~(2) The elevation, in relation to mean sea level, of the base flood and the datum used;~~
- ~~(3) The existing and proposed topography at the two-ft. contour interval in those areas where development is proposed (including fill, excavation, and stockpile areas);~~
- ~~(4) The location and description of existing streams;~~
- ~~(5) The location of existing and proposed structures, utilities, streets, and other development; and~~
- ~~(6) The elevation, in relation to mean sea level, of the lowest floor of all proposed habitable structures.~~

**ii. Information Required – Nonhabitable Structures**

For nonhabitable structures, an applicant shall submit a site plan that includes, at a minimum, the following information for the subject property:

- ~~(1) The boundary lines for the base flood and floodway;~~
- ~~(2) The elevation, in relation to mean sea level, of the base flood and the datum used; and~~
- ~~(3) The location of existing and proposed structures, utilities, streets, and other development.~~

**d. Certification of Elevation and Flood Proofing**

Within the flood management area, a Certificate of Elevation and Flood Proofing shall be obtained prior to the City's issuance of any occupancy permit. For all habitable structures, the following information shall be documented on the "Elevation Certificate" form provided by and recorded with the City:

- ~~i.— The actual as-built elevation, in relation to mean sea level, of the lowest floor (including basement) of all new and substantially improved structures. A registered professional engineer, architect, or land surveyor shall certify this information.~~
- ~~ii.— The actual as-built elevation, in relation to mean sea level, to which any structure has been flood-proofed. A registered professional engineer, architect, or land surveyor shall certify this information.~~
- ~~iii.— The design and methods of construction for any habitable nonresidential structure are in accordance with the flood management area standards for nonresidential construction. A registered professional engineer or architect shall provide this certification.~~

**~~e.— Base Flood Elevation Data Required~~**

~~When base flood elevation data has not been provided (A zones) in accordance with LOC 50.05.011.1, the applicant shall provide, subject to review by the City Manager, base flood elevation and floodway data available from a federal, state or other source, in order for the City Manager to administer the Encroachment within Floodway, Flood Management Area Development, and Standards for Construction.~~

**~~f.— Review of Building Permits~~**

~~Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source, applications for building permits for structures shall be reviewed to assure that the proposed construction will be reasonably safe from flooding. When designed for human habitation, a structure will be considered reasonably safe from flooding if the floor level is:~~

- ~~i.— Elevated at least two ft. above the highest adjacent grade in the A zones. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure; or~~
- ~~ii.— Elevated at least one ft. above the base flood level, as established by a study documenting the base flood level at the site of the structure. The study shall be prepared by a qualified licensed engineer, and shall use historical data, high water marks, photographs of past flooding, etc.~~

**~~6. ENCROACHMENT WITHIN FLOODWAY~~**

~~The following standards apply only within the floodways depicted on FEMA maps. Encroachment, including fill, new construction, substantial improvements, or other development within a floodway shall be prohibited except under any of the following circumstances:~~

- ~~a.— Certification by a registered professional engineer is provided demonstrating that encroachment would not result in any increase in the flood level during the occurrence of the base flood.~~
- ~~b.— A new structure may replace a previously existing structure provided the new structure occupies the same footprint as the previously existing structure and certification from a professional engineer demonstrates that the structure is designed to withstand hydrostatic and hydrodynamic forces.~~
- ~~c.— All or any portion of a new structure below base flood elevation may replace a previously existing structure; provided, that it occupies an area that is no larger in area than the footprint of the previously existing structure or, if larger in area, will not increase the flood level during the occurrence of the base flood. Certification from a professional engineer shall be provided demonstrating that the structure is designed to withstand hydrostatic and hydrodynamic forces and that encroachment would not result in any increase in the flood level during the occurrence of the base flood.~~

~~d.~~ Lake-related infrastructure or new water dependent uses such as bathhouses, boat docks, decks, boat lifts, piers, or similar structures may be located within the floodway provided the structures are designed by a professional engineer to not increase flood levels. The following methods may be used to achieve this standard:

- ~~i.~~ Cutting and removal of material to mitigate water displacement;
- ~~ii.~~ Use of floating structures that are anchored to eliminate lateral movement;
- ~~iii.~~ Use of breakaway walls;
- ~~iv.~~ Orientation of the structure so that openings are parallel to the flow; or
- ~~v.~~ Other appropriate engineering design techniques.

~~e.~~ Along Tryon Creek, Springbrook Creek, and Oswego Creek in areas where a floodway has not been designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A and AE on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development [an "existing and anticipated development" is defined or interpreted by FEMA in 44 CFR Section 60.3(c)(10)] will not increase the water surface elevation of the base flood more than one ft. at any point.

The main lake dam and its ancillary facilities, including the hydroelectric facility, as operated and maintained by the Lake Oswego Corporation, shall be exempt from this section.

## **76. FLOOD MANAGEMENT AREA DEVELOPMENT STANDARDS**

The following standards apply to development, including fill, within the flood management area:

### **a. Permitted Development**

- i. Planting new trees or vegetation excluding plants listed on the Plant List as invasive plants.
- ii. Restoration or enhancement of floodplains, riparian areas, wetland, upland and streams that meet federal and state standards; provided, that any restoration project which encroaches on the floodway complies with the requirements of LOC 50.05.011.6.b.xii, Encroachment within Floodway.
- iii. Work necessary to protect, repair, maintain, or replace existing structures, utility facilities, roadways, driveways, accessory uses and exterior improvements in response to emergencies; provided, that within ~~180~~90 days after the emergency has passed, an development permit application has been filed ~~to mitigate remaining adverse impacts in accordance with applicable standards~~ for approval under the standards and criteria of this LOC 50.05.011.
- iv. Except as set forth in LOC 50.05.011.76.b, new culverts, stream crossings, and transportation projects may be permitted if designed as balanced cut and fill projects or designed to not significantly raise the base flood elevation.

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### **b. Development Restrictions**

~~Special standards apply as follows:~~ In the Flood Management Area, the following standards shall be adhered to:

- i. **Fill**

**(1) Fill in the Floodway**

Fill shall only be placed in the floodway when done in accordance with the floodway encroachment standards of LOC 50.05.011.6.b.xii.

**(2) Fill – General Provisions**

The following standards apply throughout the flood management area:

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**(b)** In areas outside of the floodway, fill is permitted under the following conditions:

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**(ii)** Fill in quantities greater than ten cubic yards is permitted within the floodplain of Oswego Lake and the developed areas of its outlets. Fill in quantities greater than ten cubic yards is permitted elsewhere within the flood management area when balanced with removal of an equal amount of material such as sand, gravel, soil, rock, and building material. Only removal of material below the base flood elevation within the same watershed shall be counted as compensating for fill.

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**ii. Transportation Projects**

New culverts, stream crossings, and transportation projects shall be designed to minimize the area of fill in the flood management area and to minimize erosive velocities to the extent practicable. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.

**iii. Storage**

**(1) Hazardous Materials**

Uncontained ~~hazardous~~ Hazardous material ~~Material~~, as defined by the Department of Environment Quality, or development providing for the storage or processing of materials that are buoyant, flammable, explosive, toxic, or that could be injurious to human, animal, or plant life in time of flooding are prohibited in the flood management area. Exceptions include:

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**(2) Other Storage**

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**iv. Structures**

**(1) Residential Construction**

**(1a)** New construction and substantial improvement of any ~~habitable~~ residential structure shall have the lowest floor, including basement, elevated to at least one ft. or above the LODFE. (See subsection 4 Appurtenant Structures for accessory structure.)

~~(2b)~~ Fully enclosed areas below the lowest floor and below the design flood elevation that are subject to flooding shall comply with the flood opening requirements in subsection 6.b.iv(6) Flood Openings be designed to equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. This equalization shall not rely on human intervention. Designs for meeting this requirement shall either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

~~(a)~~ A minimum of two openings having a total net area of not less than one sq. in. for every sq. ft. of enclosed area subject to flooding shall be provided.

~~(b)~~ The bottom of all openings shall be no higher than one ft. above grade.

~~(c)~~ Openings may be equipped with screens, louvers, valves, or other coverings or devices; provided, that they permit the automatic entry and exit of flood waters.

**(2) Garages**

(a) Attached garages may be constructed with the garage floor slab below the Design Flood Elevation (LODFE) in riverine flood zones, if the following requirements are met:

(i) If located within a floodway the proposed garage must comply with the requirements of subsection 6.b.xii Encroachment Within Floodway.

(ii) The floors are at or above grade on not less than one side;

(iii) The garage is used solely for parking, building access, and/or storage;

(iv) The garage is constructed with flood openings in compliance with subsection 6.b.iv(6) Flood Openings to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater.

(v) The portions of the garage constructed below the LODFE are constructed with materials resistant to flood damage;

(vi) The garage is constructed in compliance with the standards in LOC 50.05.011.6 Flood Management Area Development Standards and .7 Standards for Construction; and

(vii) The garage is constructed with electrical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

(b) Detached garages must be constructed in compliance with the standards for appurtenant structures in subsection 6.b.iv(4) or non-residential structures in subsection 6.b.iv(3) depending on the square footage of the garage.

**v(3) Nonresidential Construction**

New construction and substantial improvement of any commercial, public use, industrial or ~~habitable~~ other nonresidential structure shall:

~~(1a)~~ (a) Have the lowest floor, (including a basement ~~which is intended to be a regular workplace for people~~) elevated to at least one ft. above the elevation or above the LODFE, of the base flood or of the flood management area as either applies to the subject property, whichever is higher, and shall meet the standards for enclosed areas below the lowest floor as described in subsection 7.b.iv of this section, Residential Construction; or

(2b) Together with attendant utility and sanitary facilities, shall:

~~(a)~~ (ai) Be designed floodproofed to so that below the elevation LODFE of the base flood or of the flood management area as either applies to the subject property, whichever is higher, so that the structure is watertight with walls substantially impermeable to the passage of water floodproofed to the standards of the National Flood Insurance Program;

~~(b)~~ (bii) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

~~(c)~~ (ciii) 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 City Manager as set forth in LOC 50.05.011.6.b.iv(2) Garages; and

~~(d)~~ (dc) Nonresidential structures that are elevated, rather than being not floodproofed, must shall comply with meet the same standards for enclosed areas space below the lowest floor as described in subsection 7.b.iv(2) of this section in subsection 6.b.iv(6) Flood Openings.

**(4) Appurtenant Structures**

Relief from elevation or floodproofing requirements for residential and non-residential structures in Riverine (Non-Coastal) flood zones may be granted for appurtenant structures that meet all of the following:

(a) Appurtenant structures located partially or entirely within the floodway must comply with requirements for development within a floodway found in subsection 6.b.xii Encroachment Within Floodway.

(b) Appurtenant structures must only be used for parking, access, and/or storage and shall not be used for human habitation;

(c) In compliance with Lake Oswego Building Code, appurtenant structures on properties that are zoned residential are limited to one-story structures less than 200 sq. ft., or 400 sq. ft. if the property is greater than two (2) acres in area and the proposed appurtenant structure will be located a minimum of 20 feet

from all property lines. Appurtenant structures on properties that are zoned as non-residential are limited in size to 120 sq. ft.

(d) The portions of the appurtenant structure located below the LODFE must be built using flood resistant materials;

(e) The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.

(f) The appurtenant structure must be designed and constructed to equalize hydrostatic flood forces on exterior walls and comply with the requirements for flood openings in subsection 6.b.iv(6) Flood Openings;

(g) Appurtenant structures shall be located and constructed to have low damage potential;

(h) Appurtenant structures shall not be used to store hazardous material (see LOC 50.05.010.6.b.iii), oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed in compliance with subsection 7.c Tanks.

(i) Appurtenant structures shall be constructed with electrical, mechanical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

**(5) Manufactured Homes**

(a) New or substantially improved manufactured dwellings supported on solid foundation walls shall be constructed with flood openings that comply with subsection 6.b.iv(6) Flood Openings;

(b) The bottom of the longitudinal chassis frame beam shall be at or above one ft. above the design flood elevation;

(c) New or substantially improved manufactured dwellings shall be anchored to prevent flotation, collapse, and lateral movement during the base flood. 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" guidebook for additional techniques); and;

(d) Electrical crossover connections shall be a minimum of one ft. above the design flood elevation.

**(6) Flood Openings**

All new construction and substantial improvements with fully enclosed areas below the lowest floor (excluding basements) are subject to the following requirements.

Enclosed areas below the LODFE, including crawl spaces shall:

- (a) Be designed to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters;
- (b) Be used solely for parking, storage, or building access;
- (c) Be certified by a registered professional engineer or architect or meet or exceed all of the following minimum criteria:
  - (i) A minimum of two openings,
  - (ii) The total net area of non-engineered openings shall be not less than one (1) square inch for each sq. ft. of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls,
  - (iii) The bottom of all openings shall be no higher than one ft. above grade.
  - (iv) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area.
  - (v) Any additional higher standards for flood openings in the Lake Oswego Building Code, Oregon Residential Specialty Codes Section R322.2.2 shall be complied with when applicable.

**(7) Crawlspace (Below Grade)**

- (a) 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 flood openings stated in Subsection (5) above. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than five ft. 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.
- (b) The crawlspace is an enclosed area below the LODFE and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one ft. above the lowest adjacent exterior grade.
- (c) Portions of the building below the LODFE 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 LODFE. The recommended construction practice is to elevate the bottom of joists and all insulation above LODFE.
- (d) Any building utility systems within the crawlspace must be elevated above LODFE 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 LODFE or sealed from floodwaters.

(e) The interior grade of a crawlspace below the LODFE must not be more than two (2) feet below the lowest adjacent exterior grade.

(f) 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 ft. 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.

(g) 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 pipes, drainage tiles or gravel or crushed stone drainage by gravity or mechanical means.

(h) The velocity of floodwaters at the site shall not exceed five ft. per second for any crawlspace. For velocities in excess of five ft. per second, other foundation types should be used.

**(8) Structures Located in Multiple or Partial Flood Zones**

(a) When a structure is located in multiple flood zones on the community's Flood Insurance Rate Maps (FIRM) the provisions for the more restrictive flood zone shall apply.

(b) When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.

**vi. Utilities**

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**(4)** On-site waste disposal systems (on-site sewerage systems) shall be located to avoid impairment to them or contamination from them during flooding consistent with the Oregon Department of Environmental Quality regulations.

**vii. ~~Manufactured Homes~~**

All manufactured homes to be placed or substantially improved within a floodplain shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at least one ft. above the elevation of the base flood or of the flood management area as either applies to the subject property, whichever is higher, and securely anchored to an anchored foundation system in accordance with the provisions of LOC 50.05.011.8.a.

**viii. Lake-Related Infrastructure**

New lake-related infrastructure and substantial improvements to lake-related infrastructure shall be permitted provided appropriate permits have been obtained from state and federal agencies.

**viii.x. Alteration or Relocation of Watercourses**

~~When alteration of a watercourse is proposed within a riverine floodplain:~~

- ~~(1) The City shall notify adjacent communities and the Oregon Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration; and~~
- ~~(2) The applicant shall:
  - ~~(a) Demonstrate that the carrying capacity of the watercourse is not diminished, and~~
  - ~~(b) Provide for City approval a plan to maintain the carrying capacity of the watercourse.~~~~
- ~~(3) For purposes of this section, alteration shall mean physically altering the direction of water flow.~~

(1) The flood carrying capacity within the altered or relocated portion of said watercourse shall be maintained and maintenance shall be provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Also comply with LOC 50.07.004.13.xiv Alteration or Relocation of Watercourse and LOC 50.07.004.13.b.

(2) As a condition of approval, the applicant shall submit either:

(a). A proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or

(b). Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance.

and, as appropriate, notify the Federal Insurance Administration as a Letter of Map Revision (LOMR).

(3). The applicant shall submit a Conditional Letter of Map Revision (CLOMR) when required under LOC 50.07.004.13.b. Ensure compliance with all applicable requirements and this subsection.

**ix. Recreational Vehicles**

~~Recreational vehicles placed on sites within the flood management area shall be~~ are required to:

(1). Be on the site for fewer than 180 consecutive days (and comply with any more restrictive code requirements, e.g., LOC 50.03.005.1 and .3); and

(2). ~~be~~ Be fully licensed and ready for highway use, be on its wheels or a jacking system, ~~is~~ be attached to the site only by quick disconnect type utilities and security devices, and ~~have~~ has no permanently attached additions.

**x. Development Change in Base Flood Elevation**

When development changes the base flood elevation, the applicant shall submit to FEMA a CLOMR/LOMR application (with a copy of the submitted application to the City) and pay any processing or application fees associated with the CLOMR/LOMR. The City Manager shall be under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this code and all applicable state and federal laws.

**xi. Subdivisions / Manufactured Dwelling Parks and Subdivisions**

All new subdivision proposals and proposals for manufactured dwelling parks and subdivisions shall:

- (1). Be consistent with the need to minimize flood damage.
- (2). Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.
- (3). Have adequate drainage provided to reduce exposure to flood hazards.

**xii. Encroachment Within Floodway**

Located within the special flood hazard areas established in the definition of Flood Management Area, Section 3 Definitions, above, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of the floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply, in addition to other standards within this Section 6:

(1) Encroachments are prohibited, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless either:

\_\_\_\_\_ (a) Certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachment would not result in any increase in the flood level during the occurrence of the base flood discharge, or

\_\_\_\_\_ (b). Encroachments within an adopted regulatory floodway that would result in an increase in base flood elevations, provided that a Conditional Letter of Map Revision (CLOMR) is applied for and approved by the Federal Insurance Administrator, and the requirements for such revision as established under Volume 44 of the Code of Federal Regulations, section 65.12 are fulfilled.

2 If the requirements of subsection xii.1 are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard reduction provisions of LOC 50.05.011.6 Flood Management Area Development Standards and .7 Standards for Construction.

**xiii. Encroachment into Portions of Tryon, Springbrook and Oswego Creeks (Undesignated Floodway).**

Along Tryon Creek, Springbrook Creek, and Oswego Creek in areas where a floodway has not been designated, no new construction, substantial improvements, or other development

(including fill) shall be permitted within Zones A1-30, AE, and unnumbered A zones on the 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 ft. at any point in the flood management area.

**xiv. Standards for Shallow Flooding Areas**

Shallow flooding areas appear on FIRMs as AO zones with depth designations or as AH zones with Base Flood Elevations. For AO zones the base flood depths range from one (1) to three (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.

**(1) Standards for AH Zones**

Development within AH Zones must comply with the standards in LOC 50.05.011.6 Flood Management Area Development Standards and .7 Standards for Construction and adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

**(2) Standards for AO Zones**

In AO zones, the following provisions apply in addition to the requirement in LOC 50.05.011.6 Flood Management Area Development Standards and .7 Standards for Construction and adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures:

(i) New construction and substantial improvement of residential structures and manufactured dwellings within AO zones shall have the lowest floor, including basement, elevated above the highest grade adjacent to the building, at a minimum of one ft. above the depth number specified on the FIRM or a minimum of two ft. above the highest adjacent grade if no depth number is specified. For manufactured dwellings the lowest floor is considered to be the bottom of the longitudinal chassis frame beam.

(ii) New construction and substantial improvements of non-nonresidential structures within AO zones shall either:

(A) Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at a minimum of one ft. above the depth number specified on the FIRM or a minimum of two ft. above the highest adjacent grade if no depth number is specified; or

(B). Together with attendant utility and sanitary facilities, be completely floodproofed to a minimum of one ft. above the depth number specified on the FIRM or a minimum of two ft. above the

highest adjacent grade if no depth number is specified, 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. If this method is used, compliance shall be certified by a registered professional engineer as stated in subsection 6.b.iv(3)(a)(iii)(3) Nonresidential Construction.

(iii) Recreational vehicles placed on sites within AO Zones shall comply with subsection 6.b.ix Recreational Vehicles.

(iv) In AO zones, new and substantially improved appurtenant structures must comply with the standards in subsection 6.b.iv(4) Appurtenant Structures.

(v) In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in subsection 6.b.iv(6) Flood Openings.

## **87. STANDARDS FOR CONSTRUCTION**

The following standards apply within the flood management area:

### **a. Anchoring**

i. All new construction, including manufactured homes, and substantial improvements in the flood management area shall be anchored to prevent flotation, collapse, or lateral movement of the structure, resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Any structure or portion thereof specifically designed to float shall be anchored to prevent lateral movement. Manufactured homes 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.

ii. All manufactured dwellings shall be anchored per subsection 6.b.iv(5) Manufactured Homes.

### **b. Construction Materials and Method**

i. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

ii. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

~~iii. For all new construction and substantial improvements to habitable structures, electrical, heating, ventilation, plumbing, and air conditioning equipment and other utility service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding. Electrical, heating, ventilating, air conditioning, plumbing, duct systems, and other equipment and service facilities shall be elevated to or above the LODFE or shall be designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during conditions of flooding. In addition,~~

electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall:

- (1) If replaced as part of a substantial improvement, meet all the requirements of this section.
- (2) Not be mounted on or penetrate through breakaway walls.

**c. Tanks**

- i. Underground tanks shall be anchored to prevent flotation, collapse and lateral movement under conditions of the design flood.
- ii. Above-ground tanks shall be installed at or above the LODFE or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the design flood.

**98. FLOOD MANAGEMENT AREA VARIANCES**

**a. Limitation of Variance**

The purpose of this section is to ensure that compliance with this section does not cause an exceptional hardship. To avoid such instances, the requirements of this section may be modified based on good and sufficient cause as demonstrated through compliance with the requirements of this section.

The issuance of a variance is for floodplain management purposes only. Flood insurance premium rates are determined by federal statute according to actuarial risk and will not be modified by the granting of a variance.

**b. Applicability**

Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of sections c.ii(3) and c.ii(7), and d. As the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases.

**c. Variance Requirements**

~~aj.~~ Variances to the requirements of ~~this section~~ LOC 50.05.011 shall only be allowed through variances authorized under this section.

~~bii.~~ To vary from the requirements of ~~this section~~ LOC 50.05.011, the applicant shall demonstrate the following:

~~i(1).~~ -The variance is for new construction and substantial improvements to be erected on a lot contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of subsections (3) and (7), below, and subsection d.

(2) The variance is the minimum necessary, considering the flood hazard, to afford relief.

(3) Within any floodway, no increase in flood levels during the base flood discharge would result (which may be demonstrated by a “no rise” analysis by a licensed engineer);

(4) A showing of good and sufficient cause;

(5) Failure to grant the variance would result in an exceptional hardship to the applicant;

(6) Granting the 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, or conflict with existing laws or ordinances; and

~~ii. The variance does not materially increase danger to life and property due to flooding or erosion;~~

~~iii. The variance will not materially increase the cost of providing and maintaining public services during and after flood conditions so as to unduly burden public agencies and taxpayers; and~~

~~iv. The variance is the minimum necessary, considering the flood hazard, to afford relief.~~

(7) The variance is for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

**d. Notification to Applicant Upon Issuance of Variance**

Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the LODFE will result in increased premium rates for flood insurance and that such construction below the LODFE increases risks to life and property. Such notification and a record of all variance actions, including justification for their issuance shall be maintained in accordance with LOC 50.07.004.13, including LOC 50.07.004.13.a.xii.

**109. CALCULATIONS FOR DETERMINING SUBSTANTIAL IMPROVEMENTS AND SUBSTANTIAL DAMAGE**

**a.** For purposes of determining substantial improvements and substantial damage, the City shall base real market value estimates of the structure on one of the following methods selected by the applicant:

i. The most recent real market building values listed in the County assessment records plus any improvements made since the last County appraisal. The value of recent improvements shall be based on building permit documents; or

ii. An appraisal provided by the applicant conducted by a licensed real estate appraiser selected by the applicant. Such appraisal must provide building market value separate from land value.

**b.** When determining if any reconstruction of an existing structure, or an alteration or addition to an existing structure is a substantial improvement, the City will consider construction improvement values cumulatively on a calendar year on a 12 month basis period after a final approval and not calculate these values in a cumulative manner. Improvement values shall be based on standard methodologies used to determine building permit values construction costs per the FEMA Substantial Improvement / Substantial Damage Desk Reference (FEMA P-758).

**10. Designation of Flood Plain Administrator; NFIP Administration**

The City Manager is hereby appointed to be the Flood Plain Administrator to administer, implement, and enforce this Section 50.05.011 by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

The Floodplain Administrator shall perform the following administration requirements relating to participation and compliance with the federal National Flood Insurance Program:

**a. Flood Hazard Boundary Alteration**

Notify the Federal Insurance Administrator in writing whenever the boundaries of Lake Oswego have been modified by annexation or Lake Oswego has otherwise assumed authority or no longer has authority to adopt and enforce floodplain management regulations for a particular area, to ensure that all Flood Hazard Boundary Maps (FHBM) and Flood Insurance Rate Maps (FIRM) accurately represent the community's boundaries. Include within such notification a copy of a map of Lake Oswego suitable for reproduction, clearly delineating the new corporate limits or new area for which Lake Oswego has assumed or relinquished floodplain management regulatory authority.

**b. Substantial Improvement and Substantial Damage Assessments and Determinations**

i. Conduct Substantial Improvement (SI) (as defined in LOC 50.05.011.3) reviews for all structural development proposal applications and maintain a record of SI calculations within permit files in accordance with LOC 50.07.004.13.b.

ii. Conduct Substantial Damage (SD) (as defined in LOC 50.05.011.3) assessments when structures are damaged due to a natural hazard event or other causes.

iii. Make SD determinations whenever structures within the special flood hazard area (as established in LOC 50.05.011) are damaged to the extent that 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.



## 12. EXEMPT DEVELOPMENT

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### a. Classification

Exempt developments include:

- i. Landscaping or landscape alterations, unless:
  - (1) Such landscaping or alterations would modify or violate a condition of approval of a prior permit. In such instance, the permit shall be processed as a modification of the prior permit;
  - (2) Located within the Greenway Management Overlay District or Flood Management Area; or
  - (3) Located within an RP or RC overlay district, or an RC or HBA protection area, and not exempt from the requirements of the Sensitive Lands regulations pursuant to LOC 50.05.010.2.b.

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- iii. Construction of a structure that does not require a building permit unless in Flood Management Area.
- iv. Interior remodeling which does not change a structure's occupancy classification or change the structure to a use that does not qualify as a permitted use in the zone, unless in Flood Management Area.
- v. Exterior remodeling of a structure that does not require a building permit, unless in Flood Management Area.

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## 13. MINISTERIAL DEVELOPMENT DECISIONS

### a. Ministerial Development Classification

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#### ii. Ministerial Development Types

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(19) Any development that is not "exempt development" per LOC 50.07.003.12.a because the development is located within the Flood Management Area.

(20) A variance to the Flood Management Area Development Standards, Residential or Nonresidential Construction Standards (LOC 50.05.011.6.b (1 or 3), for detached accessory structures used only for functionally dependent uses that are for the parking of vehicles, including boats, and storage at grade if the structure is:

- (a) In special flood hazard areas (Zones A, AE, AH, AO, and A1-30), not larger than 500 sq. ft. and walls have flood openings in compliance with the requirements of LOC 50.05.011.6.b.iv(6) Flood Openings;
  - (b) Anchored to resist flotation, collapse, and lateral movement.
  - (c) Flood damage-resistant materials used below the LODFE (as defined in LOC 50.05.011.1) comply with the requirements of LOC 50.05.011.7.b.
  - (d) Mechanical, electrical, and utility equipment comply with the requirements of LOC 50.05.011.6.b.vi and 7.b;
- and the variance requirements of LOC 50.05.011.8 are met.

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**e. Review and Decision**

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**ii. Review Criteria for Ministerial Developments**

A ministerial development shall comply with the requirements of the zone, including overlay zones, in which the subject lot or parcel is located, the Stormwater Management Code (LOC Article 38.25) and other than development that is classified as ministerial development per subsection 13.a.ii.(19), shall comply with the following sections of the development standards:

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~~(7) If located in the Flood Management Area, LOC 50.05.011.~~

**(87)** Building Design Standard, LOC 50.06.001.2 – 4, for construction or exterior modification of a detached single-family dwelling, a single duplex on a lot, zero lot line dwelling, or a structure accessory to such structures.

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**14. MINOR DEVELOPMENT DECISIONS**

**a. Minor Development Classification**

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ii. "Minor development" under subsection 14.a.i(1) of this section includes:

**(15)** Minor variances, design variances, and major variances (LOC Art. 50.08), and flood management area variances (LOC 50.05.010.8).

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### **13. Flood Management Area**

LOC 50.07.004.13 shall be interpreted to implement the requirements of LOC 50.05.011. The definitions of LOC 50.05.011 shall be applied to the terms herein when applicable.

Application for a development permit may be made on forms furnished by the Floodplain Administrator and may include, but not be limited to, 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. Information to be Submitted and Maintained**

The following information shall be submitted by the applicant and then maintained and made available for public inspection by the City as needed. (The obligation to “record” does not mean record with the county clerk; FEMA intends it to mean the City shall retain the information in perpetuity.)

i. Submit the actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation (BFE) data is provided through the Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM), or obtained in accordance with subsection 13.b. [The City shall record, and maintain the actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where BFE data is provided through the FIS, FIRM, or obtained in accordance with subsection 13.b.] In riverine flood zones, submit the proposed elevation (in relation to mean sea level), of the lowest floor (including basement) and all attendant utilities of all new and substantially improved structures; in accordance with the requirements of subsection 13.a.

ii. Submit the elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of LOC 50.05.011.6.b.xii Encroachment Within Floodway and .5.a.ii Authority and Criteria are adhered to. [The City shall record the elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of LOC 50.05.011.6.b.xii Encroachment Within Floodway, and 5.a.ii Authority and Criteria are adhered to.]

iii. Upon placement of the lowest floor of a structure (including basement) but prior to further vertical construction, submit documentation in the form of a FEMA Elevation Certificate, prepared and sealed by a professional licensed surveyor or engineer certifying the elevation (in relation to mean sea level) of the lowest floor (including basement).

iv. Where base flood elevation data are utilized, submit As-built certification of the elevation (in relation to mean sea level) of the lowest floor (including basement) prepared and sealed by a professional licensed surveyor or engineer prior to the final inspection.

v. Submit required Elevation Certificates (EC). [The City shall maintain all Elevation Certificates (EC) submitted to the City.]

vi. Submit:

(1). The elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under LOC 50.05.011 and where Base Flood Elevation (BFE) data is provided through the FIS, FIRM, or obtained in accordance with section subsection 13.b.

(2). Proposed elevation in relation to mean sea level to which any non-residential structure will be floodproofed.

[The City shall record, and maintain the elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under LOC 50.05.011 and where Base Flood Elevation (BFE) data is provided through the FIS, FIRM, or obtained in accordance with section subsection 13.b.]

The applicant shall submit certification by a registered professional engineer or architect licensed in the State of Oregon that the floodproofing methods proposed for any non-residential structure meet the floodproofing criteria for non-residential structures in LOC 50.05.011.6.b.iv(3).

vii. Submit floodproofing certificates required under LOC 50.05.011. (Applicants floodproofing non-residential buildings shall be notified by the City Manager that flood insurance premiums will be based on rates that are one ft. below the floodproofed level (e.g., a building floodproofed to the base flood level will be rated as one ft. below)).

viii. Submit justification for all variance actions. (The City shall record and maintain all variance actions, including justification for their issuance.)

ix. Submit all hydrologic and hydraulic analyses performed as required under LOC 50.05.011.6.b.xii Encroachment Within Floodway. (The City will obtain and maintain all hydrologic and hydraulic analyses performed as required under LOC 50.05.011.6.b.xii Encroachment Within Floodway.)

x. Submit substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure. (The City will record and maintain all Substantial Improvement and Substantial Damage calculations

and determinations as required under LOC 50.05.011.9 Calculations For Determining Substantial Improvements and Substantial Damage.)

xi. Residential and Nonresidential Structures

For development of a residential or nonresidential structure, the applicant shall submit a site plan and supporting information. Application materials shall be verified by an on-site survey by a registered professional land surveyor or registered professional engineer and, at a minimum, shall provide survey information for the portion of the subject property within the flood management area. The City Manager may require submittal of the following supporting information for the subject property:

- (1) The boundary lines for the base flood and floodway;
- (2) The elevation, in relation to mean sea level, of the base flood and the datum used;
- (3) The existing and proposed topography at the two-ft. contour interval in those areas where development is proposed (including fill, excavation, and stockpile areas);
- (4) The location and description of existing streams;
- (5) The location of existing and proposed structures, utilities, streets, and other development; and
- (6) The elevation, in relation to mean sea level, of the lowest floor of all proposed habitable structures.

xii. Appurtenant Structures

- (1) For appurtenant structures, submit a site plan that includes, at a minimum, the following information for the subject property:
  - (a) The boundary lines for the base flood and floodway;
  - (b) The elevation, in relation to mean sea level, of the base flood and the datum used; and
  - (c) The location of existing and proposed structures, utilities, streets, and other development
- (2) For any variance granted, the Flood Plain Administrator shall notify the applicant in writing that the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and such construction below the base flood level increases risks to life and property.
  - (a) Such notification shall be maintained with a record of all variance actions as required in subsection (b) below; and

(b) The City shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its annual or biennial report submitted to the Federal Insurance Administrator.

xiii. The amount and location of any fill or excavation activities proposed.

xiv. Alteration or Relocation of Watercourses

When alteration or relocation of a watercourse is proposed within a riverine floodplain:

(1) The applicant shall provide a description of the extent to which any watercourse will be altered or relocated.

(2) The City Manager shall notify adjacent communities, Oregon Department of Land Conservation and Development, and other appropriate state and federal agencies prior to any alteration or relocation of a watercourse, and the applicant shall submit evidence of such notification to the Federal Insurance Administration.

xv. Development in Portions of Tryon, Springbrook and Oswego Creeks

For development within portions of Tryon Creek, Springbrook Creek, and Oswego Creek defined by LOC 50.05.011.6.b.xiii and when the development increases the base flood elevation by more than one ft. in areas, submit a FEMA CLOMR/LOMR application and pay any processing or application fees associated with the CLOMR/LOMR prior to the issuance of a development permit.

xvi. Submit description of the extent to which any watercourse will be altered or relocated.

xvii. In riverine flood zones, the proposed elevation (in relation to mean sea level), of the lowest floor (including basement) and all attendant utilities of all new and substantially improved structures; in accordance with the requirements of subsection b.

b. Information Regarding Base Flood Elevation and Floodway Data / FEMA Notification

For all development applications:

i. Base Flood Elevation data. Applicant shall submit:

(1) BFE data from the FIS, FIRM, or other authoritative source; or

(2) When BFE data per subsection (1) above is not available, e.g., unnumbered A zones, provide, for review by the City Manager, BFE data available from a federal, state or other source, in order for the City Manager to administer the Encroachment within Floodway, Flood Management Area Development, and Standards for Construction.

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source, applications for development permits for structures shall be reviewed to assure that the proposed structure will be reasonably safe from flooding. A structure will be considered reasonably safe from flooding if the floor level is elevated at least two ft. above the highest adjacent grade in the unnumbered A zones. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Failure to elevate at least two ft. above grade in unnumbered A zones may result in higher insurance rates.

Exception: Development proposals that are either 5 acres or more in size or are 50 lots or more are required to include within the application material BFE data. In unnumbered A Zones, the applicant shall provide an engineering analysis to establish the base flood elevation.

ii. Submit all technical data to determine if the development will increase or decrease the base flood elevation, and if the base flood elevation is changed, submit all technical data to support a FEMA CLOMR/LOMR application.

iii. Applicant shall notify FEMA within six months of project completion when an applicant has obtained a Conditional Letter of Map Revision (CLOMR) from FEMA. This notification to FEMA shall be provided as a Letter of Map Revision (LOMR).

**LOC 50.08 VARIANCES**

**LOC 50.08.001 INTRODUCTIONS**

**2. VARIANCES NOT ALLOWED**

No variance shall be granted for the following:

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g. To vary a standard under LOC 50.05.011 Flood Management Area, except per LOC 50.05.011.9 Flood Management Area Variances.



50.09.003 PENALTIES

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**4. FLOOD PLAIN MANAGEMENT**

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 civil violation and shall be enforced pursuant to the provisions of LOC 34.04.101 to 34.04.145. Each day that the violation exists shall constitute a separate violation. The maximum fine amount per civil violation shall be as provide in LOC 13.02.020. Nothing contained herein shall prevent the City Manager from taking such other lawful action as is necessary to prevent or remedy any violation.

**50.10.003 DEFINITIONS**

**2. DEFINITION OF TERMS**

The following terms shall mean, except as may be otherwise defined for a specific Section:

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**Development**

Any manmade change to improved or unimproved real property, including, but not limited to, construction, installation or alteration of a building or other structure, change of use, land division, establishment or termination of a right of access, storage on the land, grading, clearing, removal or placement of soil, paving, mining, dredging, filling, excavation, drilling operations or removal of trees.

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**Lowest Floor**

~~The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, watercraft, building access or storage, in an area other than a basement, is not considered a building's lowest floor.~~

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**Manufactured Homes**

A multi-sectional dwelling unit with a Department of Housing and Urban Development (HUD) label, of not less than 1,000 sq. ft. constructed in an off-site manufacturing facility on or after June 15, 1976, to the standards and requirements of the National Manufactured Home Construction and Safety Standards Act of 1974, and designed to be used with a foundation as a dwelling unit on a year-round basis with approved connections to water, sewer and electric utility systems.

~~Notwithstanding the above, for the purpose of LOC 50.05.011, Flood Management Area, a "manufactured home" is 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 connected to the required utilities. For floodplain 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, and other similar vehicles.~~

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**Mean Sea Level**

~~"Mean sea level" and other references to elevations are based on the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.~~

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**Oswego Lake**

~~For purposes of LOC 50.05.011, Flood Management Area, "Oswego Lake" includes the main lake and all embayments and canals that have the same elevation as the main lake.~~

**Start of Construction**

~~"Start of construction" is meant to apply to new construction and 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.~~

~~a. — For New Construction. 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 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 a part of the main structure.~~

~~b. — For Substantial Improvement. The actual start means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.~~

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**Structure**

That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner. If the structure is located across separate parcels or lots and the portions of the structure are separately owned, the "structure" shall be considered to be only that portion of the structure

that is used or intended for supporting or sheltering any use or occupancy that is occurring within the boundaries of the parcel or lot. ~~For purposes of LOC 50.05.011, Flood Management Area, a "structure" means a walled and roofed building and a gas or liquid storage tank.~~

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**Substantial Improvement**

~~For the purpose of LOC 50.05.011, Flood Management Area, a "substantial improvement" is any reconstruction, rehabilitation, addition, or other improvements to a structure, the cost of which exceeds 50% of the market value of the structure before the "start of construction" of the improvement. "Substantial improvement" also means improvement to a structure that has been damaged or destroyed to a degree that the cost of repair or restoration would equal or exceed 50% of the market value of the structure before the damage or destruction occurred.~~

~~The term does not include either:~~

- ~~a. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or~~
- ~~b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.~~

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**Watercourse**

A natural or artificial channel which conveys stormwater runoff.

~~Notwithstanding the above definition, for purposes of LOC 50.05.011, Flood Management Area, watercourse means a bed or channel of a riverine drainageway such as a river, stream, creek, or brook.~~

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