



# Oregon

John A. Kitzhaber, M.D., Governor

Department of Land Conservation and Development

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## NOTICE OF ADOPTED AMENDMENT

April 8, 2011

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

FROM: Plan Amendment Program Specialist

SUBJECT: City of Brownsville Plan Amendment  
DLCD File Number 001-10

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. A copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office. The submitted ordinance was adopted by the City of Brownsville on August 18, 2010, per ORS 197.615 (3) and DLCD did not notify within five working days of receipt, any persons who requested notification.

Appeal Procedures\*

### **DLCD DEADLINE TO APPEAL:**

**Acknowledged under ORS Sections 197.615, 197.625, and 197.830 (9)**

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

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

Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

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

Cc: Bill Sattler, City of Brownsville  
Gloria Gardiner, DLCD Urban Planning Specialist  
Chris Shirley, FEMA Specialist  
Ed Moore, DLCD Regional Representative

<paa> YA



# FORM 2

## D L C D NOTICE OF ADOPTION

This form must be mailed to DLCD within 5 working days after the final decision  
per ORS 197.610, OAR Chapter 660 - Division 18

DEPT OF

(See reverse side for submittal requirements)

AUG 18 2010

LAND CONSERVATION  
AND DEVELOPMENT

Jurisdiction: CITY OF BROWNSVILLE Local File No.: \_\_\_\_\_  
(If no number, use none)

Date of Adoption: JUNE 22, 2010 Date Mailed: AUG. 17, 2010 (remail)  
(Must be filled in) (Date mailed or sent to DLCD)

Date the Notice of Proposed Amendment was mailed to DLCD: MAY 7, 2010

Comprehensive Plan Text Amendment  Comprehensive Plan Map Amendment

Land Use Regulation Amendment  Zoning Map Amendment

New Land Use Regulation  Other: \_\_\_\_\_

(Please Specify Type of Action)

Summarize the adopted amendment. Do not use technical terms. Do not write see Attached.≡

ADOPT 2010 FEMA MODEL FLOODPLAIN ORDINANCE  
AS REQUIRED

Describe how the adopted amendment differs from the proposed amendment. If it is the same, write same.≡ If you did not give notice for the proposed amendment, write AN/A.≡

SAME

Plan Map Changed from : \_\_\_\_\_ to \_\_\_\_\_

Zone Map Changed from: \_\_\_\_\_ to \_\_\_\_\_

Location: \_\_\_\_\_ Acres Involved: \_\_\_\_\_

Specify Density: Previous: \_\_\_\_\_ New: \_\_\_\_\_

Applicable Statewide Planning Goals: \_\_\_\_\_

Was an Exception Adopted? Yes: \_\_\_\_\_ No: \_\_\_\_\_

DLCD File No.: 001-10 (18288) [16585]



Did the Department of Land Conservation and Development receive a notice of Proposed Amendment **FORTY FIVE (45) days prior to the first evidentiary hearing**? Yes:  No:

If no, do the Statewide Planning Goals apply. Yes:  No:

If no, did The Emergency Circumstances Require immediate adoption. Yes:  No:

Affected State or Federal Agencies, Local Governments or Special Districts: \_\_\_\_\_

Brownsville Rural Fire

Local Contact: BILL SATTLER Area Code + Phone Number: 541-466-5880

Address: PO BOX 188 City: BROWNSVILLE

Zip Code+4: 97327 Email Address: planning@citybrownsville.or.us

### ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision** per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and TWO (2) Copies of the Adopted Amendment to:  
**ATTENTION: PLAN AMENDMENT SPECIALIST**  
**DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT**  
**635 CAPITOL STREET NE, SUITE 150**  
**SALEM, OREGON 97301-2540**
2. Submit **TWO (2) copies** the adopted material, if copies are bounded please submit **TWO (2) complete copies** of documents and maps.
3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.
4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the ANotice of Adoption is sent to DLCD.
6. In addition to sending the ANotice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.
7. **Need More Copies?** You can copy this form on to 8-1/2x11 green paper only; or call the DLCD Office at (503) 373-0050; or Fax your request to:(503) 378-5518; or Email your request to Mara.Ulloa@state.or.us - **ATTENTION: PLAN AMENDMENT SPECIALIST.**

**ORDINANCE NO. 727**

**AN ORDINANCE SECTION 15.05 OF THE BROWNSVILLE MUNICIPAL CODE,  
FLOODPLAIN DEVELOPMENT.**

**WHEREAS**, the City of Brownsville is subject to flooding by the Calapooia River; and

**WHEREAS**, there are areas of Special Flood Hazard within the City Limits of Brownsville; and

**WHEREAS**, a revised Flood Insurance Rate Map has been adopted by the Federal Emergency Management Agency and the City is required to update and revise its Floodplain Development Ordinance to adopt the new map and comply with current requirements; and

**WHEREAS**, this is necessary to allow residents of Brownsville to participate in the National Flood Insurance Program,

**NOW THEREFORE**, the City of Brownsville ordains as follows:

**Section 1.** The existing text of Chapter 15.05 of the Brownsville Municipal Code is deleted in its entirety and is hereby amended to read as follows:

**SECTION 15.05**

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

**A. AUTHORIZATION**

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

**B. FINDINGS OF FACT**

- (1) The flood hazard areas of the City of Brownsville are subject to periodic inundation which results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- (2) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.



### C. STATEMENT OF PURPOSE

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

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

### D. METHODS OF REDUCING FLOOD LOSSES

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

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

### **15.05.020 DEFINITIONS**

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

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

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

"AREA OF SPECIAL FLOOD HAZARD" means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.

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

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

"BELOW-GRADE CRAWL SPACE" means an enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed 4 feet at any point

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

"DEVELOPMENT" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard.

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

"EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means a manufactured home park subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the adopted floodplain management regulations.

“EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION” means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

“FLOOD” OR “FLOODING” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

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

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

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

“FLOODWAY” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

“LOWEST FLOOR” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance found at Section 15.05.050(B)(1).

“MANUFACTURED HOME” means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle.”

“MANUFACTURED HOME PARK OR SUBDIVISION” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

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

“NEW MANUFACTURED HOME PARK OR SUBDIVISION” means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the

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

“RECREATIONAL VEHICLE” means a vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently 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.

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

“STATE BUILDING CODE” means the combined specialty codes.

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

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

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

- (1) Before the improvement or repair is started; or
- (2) If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other



structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or
- (2) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

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

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

#### **15.05.030 GENERAL PROVISIONS**

##### **A. LANDS TO WHICH THIS ORDINANCE APPLIES**

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the City of Brownsville.

##### **B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD**

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "**The Flood Insurance Study for Linn County, Oregon and Incorporated Areas**", dated **September 29, 2010**, with accompanying Flood Insurance Map (FIRM) are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at City Hall. The best available information for flood hazard area identification as outlined in Section 15.05.040(C)(2) shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under section 15.05.040(C)(2).

##### **C. PENALTIES FOR NONCOMPLIANCE**

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a violation.

Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$5,000 for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the City of Brownsville from taking such other lawful action as is necessary to prevent or remedy any violation.

#### D. ABROGATION AND GREATER RESTRICTIONS

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

#### E. INTERPRETATION

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

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

#### F. WARNING AND DISCLAIMER OF LIABILITY

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

### **15.05.040 ADMINISTRATION**

#### A. ESTABLISHMENT OF DEVELOPMENT PERMIT

##### 1. Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 15.05.030(B). The permit shall be for all structures including manufactured

homes, as set forth in the "DEFINITIONS," and for all development including fill and other activities, also as set forth in the "DEFINITIONS."

## 2. Application for Development Permit

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

- a) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- b) Elevation in relation to mean sea level of floodproofing in any structure;
- c) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 15.05.050(B)(2); and
- d) Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

## B. DESIGNATION OF THE LOCAL ADMINISTRATOR

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

## C. DUTIES AND RESPONSIBILITIES OF THE LOCAL ADMINISTRATOR

Duties of the local administrator shall include but not be limited to:

### (1) Permit Review

- a) Review all development permits to determine that the permit requirements and conditions of this ordinance have been satisfied.
- b) Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.
- c) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 15.05.050(C) are met.



(2) Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 15.05.030(B), BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the local administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Sections 15.05.050(B), SPECIFIC STANDARDS, and 15.05.050(C) FLOODWAYS.

(3) Information to be Obtained and Maintained

a) Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in Section 15.05.040(C)(2), obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basements and below-grade crawlspaces) of all new or substantially improved structures, and whether or not the structure contains a basement.

b) For all new or substantially improved floodproofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in Section 15.05.040(C)(2):

(i) Verify and record the actual elevation (in relation to mean sea level), and

(ii) Maintain the floodproofing certifications required in Section 15.05.040(C)(3).

c) Maintain for public inspection all records pertaining to the provisions of this ordinance.

d) It shall be the responsibility of the developer to provide a completed Elevation Certificate containing the information required in sections (1) and (2) to the City Administrator prior to final inspection being performed. The City may withhold a final inspection until an Elevation Certificate has been provided.

(4) Alteration of Watercourses

a) Notify adjacent communities, the Department of Land Conservation and Development and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

b) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

(5) Interpretation of FIRM Boundaries

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the National Flood Insurance Program (44 CFR 59-76).

**15.05.050 PROVISIONS FOR FLOOD HAZARD REDUCTION**

A. GENERAL STANDARDS

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

1. Anchoring

- a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- b) All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

2. Construction Materials and Methods

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

3. Utilities

- a) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- b) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and,

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

#### 4. Subdivision Proposals

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

#### 5. Review of Building Permits

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (Section 15.05.040(C)(2)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate the lowest floor at least two feet above grade in these zones may result in higher insurance rates.

### B. SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided (Zones A1-30, AH, and AE) as set forth in Section 15.05.030(B), BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or Section 15.05.040(C)(2), Use of Other Base Flood Data, the following provisions are required:

#### 1. Residential Construction

- a) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation.
- b) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be either be



certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- (i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
- (ii) The bottom of all openings shall be no higher than one foot above grade.
- (iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

## 2. Nonresidential Construction

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

- a) Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- c) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 15.05.040(C)(3)(b).
- d) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in 15.05.050(B)(1).
- e) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one foot below).

## 3. Manufactured Homes

- a) All manufactured homes to be placed or substantially improved shall meet the following standards:
  - (i) The ground area reserved for the placement of a manufactured dwelling shall be a minimum of 12 in. above BFE unless the foundation walls are designed to automatically equalize hydrostatic forces on exterior walls by allowing for the entry and exit of

floodwaters. Designs for meeting this requirement must be 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 square inch for every square foot of enclosed area subject to flooding shall be provided;
  - b. The bottom of all openings shall be no higher than one foot above grade, and;
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. *[Manufactured Dwelling Specialty Code, 4-3.1(5) and NFIP 60.3(c)(5)]*
- (ii) The bottom of the longitudinal chassis frame beam in A zones, and the bottom of the lowest horizontal structural member supporting the dwelling in V zones shall be a minimum of 12 inches above BFE *[see definition of Lowest Floor in Manufactured Dwelling Specialty Code]*
  - (iii) The manufactured dwelling 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; *[44 CFR 60.3(c)(6)]*
  - (iv) Electrical crossover connections shall be a minimum of 12 in. above BFE. *[Manufactured Dwelling Specialty Code 6-4.2(1)]*
- b) Recreational vehicles placed on sites are required to either:
- (i) Be on the site for fewer than 180 consecutive days
  - (ii) Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
  - (iii) Meet the requirements of 5.2-3 above and the elevation and anchoring requirements for manufactured homes.

#### 4. Below-grade crawl spaces

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

- 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 openings stated in Section B below. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with

flood velocities greater than five (5) feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer. Other types of foundations are recommended for these areas.

b) The crawlspace is an enclosed area below the base flood elevation (BFE) and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one (1) foot above the lowest adjacent exterior grade.

c) Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottom of joists and all insulation above BFE.

d) Any building utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.

e) The interior grade of a crawlspace below the BFE 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 (4) feet at any point. The height limitation is the maximum allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas.

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 should not exceed five (5) feet per second for any crawlspace. For velocities in excess of five (5) feet per second, other foundation types should be used.



## C. FLOODWAYS

Located within areas of special flood hazard established in Section 15.05.030(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

2. If Section 15.05.050(C)(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 15.05.050, PROVISIONS FOR FLOOD HAZARD REDUCTION.

3. New installation of manufactured dwellings are prohibited (2002 Oregon Manufactured Dwelling and Park Specialty Code). Manufactured dwellings may only be located in floodways according to one of the following conditions:

(i) If the manufactured dwelling already exists in the floodway, the placement was permitted at the time of the original installation, and the continued use is not a threat to life, health, property, or the general welfare of the public; or

(ii) A new manufactured dwelling is replacing an existing manufactured dwelling whose original placement was permitted at the time of installation and the replacement home will not be a threat to life, health, property, or the general welfare of the public and it meets the following criteria

1. As required by 44 CFR Chapter 1, Subpart 60.3(d)(3), it must be demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the manufactured dwelling and any accessory buildings, accessory structures, or any property improvements (encroachments) will not result in any increase in flood levels during the occurrence of the base flood discharge;

2. The replacement manufactured dwelling and any accessory buildings or accessory structures (encroachments) shall have the finished floor elevated a minimum of 18 inches (46 cm) above the BFE as identified on the Flood Insurance Rate Map;

3. The replacement manufactured dwelling is placed and secured to a foundation support system designed by an Oregon professional engineer or architect and approved by the authority

having jurisdiction;

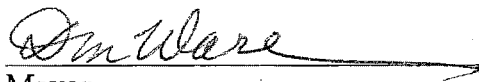
4. Projects for stream habitat restoration may be permitted in the floodway provided:

- (i) The project qualifies for a Department of the Army, Portland District *Regional General Permit for Stream Habitat Restoration* (NWP-2007-1023); and,
- (ii) A qualified professional (a Registered Professional Engineer; or staff of NRCS; the county; or fisheries, natural resources, or water resources agencies) has provided a feasibility analysis and certification that the project was designed to keep any rise in 100-year flood levels as close to zero as practically possible given the goals of the project; and,
- (iii) No structures would be impacted by a potential rise in flood elevation; and,
- (iv) An agreement to monitor the project, correct problems, and ensure that flood carrying capacity remains unchanged is included as part of the local approval.

D. CRITICAL FACILITY

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

PASSED BY THE COUNCIL AND APPROVED BY THE MAYOR this 22<sup>nd</sup> day of June, 2010.

  
\_\_\_\_\_  
Mayor

ATTEST:  
  
\_\_\_\_\_  
City Administrator



Brownsville City Hall  
255 N. Main Street • P.O. Box 188 • Brownsville, OR 97327 • (541) 466-5666 • Fax (541) 466-5118  
TT/TDD 1 (800) 555-1155

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DEPT OF

AUG 18 2010

LAND CONSERVATION  
AND DEVELOPMENT

Dept. of Land Conservation and Development  
Christine Shirley  
635 Capitol Street NE, Suite 150  
Salem, OR 97301-2540

August 17, 2010

Enclosed is a copy of the adopted floodplain ordinance for the City of Brownsville. Apparently the first mailing didn't make it to you as I just received a reminder letter from FEMA. The ordinance is basically the FEMA model ordinance and has been reviewed by Stephen Lucker during the drafting process.

Sincerely,

Bill Sattler  
City Planner