



CITY OF BEAVERTON

CITY ORDINANCES

ORDINANCE 3564

AN ORDINANCE AMENDING CERTAIN SECTIONS OF THE "SITE DEVELOPMENT CODE", 9.05.015-.170, RELATING TO DEVELOPMENT IN FLOODPLAINS; AND DECLARING AN EMERGENCY.

NUMBER OF PAGES

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CODE

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AN ORDINANCE AMENDING CERTAIN SECTIONS OF THE "SITE DEVELOPMENT CODE", 9.05.015 - .170, RELATING TO DEVELOPMENT IN FLOODPLAINS; AND DECLARING AN EMERGENCY.

WHEREAS, the Federal Emergency Management Agency (FEMA) has adopted federal regulations for the administration of the National Flood Insurance Program; and

WHEREAS, the City participates in the National Flood Insurance Program and has adopted provisions in its Site Development Code for that purpose; and

WHEREAS, federal regulations for the administration of the National Flood Insurance Program have recently been revised thus mandating that the City's ordinance be amended accordingly to ensure its continued participation in the program; and

WHEREAS, an emergency exists because the amendments to the Site Development Code required by FEMA must be adopted and in place no later than May 4, 1987; now, therefore,

THE CITY OF BEAVERTON ORDAINS AS FOLLOWS:

Section 1. BC 9.05.015, Definitions, the definition of "Area of Shallow Flooding" hereby is amended to read as follows:

"Area of Shallow Flooding - 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."

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Section 2. To BC 9.05.015, Definitions, the definition of "Area of Special Flood Hazard" hereby is added in alphabetical order to read as follows:

"Area of Special Flood Hazard - The land in the floodplain 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"."

Section 3. BC 9.05.015, Definitions, the definition of "Base flood" hereby is amended to read as follows:

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

Section 4. BC 9.05.015, Definitions, the definition of "Development" hereby is amended to read as follows:

"Development - 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 located within the area of special flood hazard."

Section 5. BC 9.05.015, Definitions, the definition of "Floodway" hereby is amended to read as follows:

"Floodway - 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."

Section 6. To BC 9.05.015, Definitions, the definition of "Lowest floor" hereby is added in alphabetical order to read as follows:

"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."

Section 7. To BC 9.05.015, Definitions, the definitions of "Manufactured home", "Manufactured home park or subdivision", "New construction", "Start of construction", "Structure", and "Substantial improvement" hereby are added in alphabetical order to read as follows:

"Manufactured home - 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.

"Manufactured home park or subdivision - A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"New construction - Structures for which the 'start of construction' commenced on or after the effective date of

this ordinance.

"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 a slab or footings, the installation of piles, the construction of columns, or any other 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 foundation 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.

"Structure - A walled and roofed building including a gas or liquid storage tank that is principally above ground.

"Substantial improvement -

"A. Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

"1. before the improvement or repair is started, or

"2. if the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition 'substantial improvement' is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

"B. The term does not, however, include either:

"1. 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

"2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places."

Section 8. BC 9.05.020, Permits Required, subsection D hereby is amended to read as follows:

"9.05.020 Permits Required.

"*****

"D. A permit shall be required for any construction or development in an area of special flood hazard."

Section 9. BC 9.05.035, Permit Application, subsection F(1) hereby is amended to read as follows:

"9.05.035 Permit Application.

"*****

"F. ***

"1. As a condition to any permit for development, the applicant first shall provide and the city engineer shall record and keep available for public inspection, the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of any new or substantially improved structures, and the fact of whether or not the structure contains a basement. For all new or substantially improved floodproofed structures, the city engineer shall verify and record the actual elevation (in relation to mean sea level) and maintain the floodproofing certifications required by BC 9.05.060, subsections C and D."

Section 10. BC 9.05.060, Permit Issuance or Denial - Floodplain District, existing subsection A hereby is redesignated subsection B, and accordingly references to subsection A throughout the ordinance and other references shall now be to subsection B. The section is amended at subsections (l) and (l) (e) to read as follows:

"9.05.060 Permit Issuance or Denial - Floodplain District.

"A. *****

"B. Grounds for denial.

"1. In addition to the grounds for denial contained in BC 9.05.055, the city engineer shall also deny a permit for development in an area of special flood hazard if the city engineer finds that any of the following circumstances exist:

"e. where elevation data is not available either through the Flood Insurance Study or from another authoritative source, proposed construction will not 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 at least two feet above grade in these zones may result in higher insurance rates.

*****"

Section 11. BC 9.05.060, Permit Issuance or Denial - Floodplain District, hereby is amended by adding a new subsection A to read as follows:

"9.05.060 Permit Issuance or Denial - Floodplain District.

"A. Floodways. Located within areas of special flood hazard established in the FIRM are areas designated as

floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

"1. prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

"2. If subsection 1, above, is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section."

Section 12. BC 9.05.060, Permit Issuance or Denial -Floodplain District, existing subsections B and C hereby are redesignated subsections C and D, respectively and are amended to read as follows:

"9.05.060 Permit Issuance or Denial - Floodplain District.

"A. *****

"B. *****

"C. 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 sewer 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.

"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 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 five acres (whichever is less).

"5. Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, 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, highwater marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

"D. Specific Standards. In all areas of special flood hazards where base flood elevation data has been provided as set forth in the Flood Insurance Rate Map (FIRM), 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 one foot above base flood elevation or to the floodway.

"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 exist of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

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

"2) the bottom of all openings shall be no higher than one foot above grade;

"3) openings may be equipped with screens, louvers or other coverings or devices provided that they permit the automatic entry and exist 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 to one foot above the level of the base flood elevation, or to the level of the floodway; 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 BC 9.05.035, subsection F.

"d. nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in BC 9.05.060, subsection D1.

"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 constructed to the base flood level will be rated as one foot below that level).

"3. Manufactured Homes.

"a. All manufactured homes to be placed or substantially improved within Zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of BC 9.05.060, subsection C1.

"b. for new manufactured home parks and subdivisions; for expansions to existing manufactured home parks and subdivisions; for existing manufactured home parks and subdivisions where the repair, reconstruction or improvement of the street, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced; and for manufactured homes not placed in a manufactured home park or subdivision, it is required that:

"1) stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the manufactured home will be at or above the base flood level;

"2) adequate surface drainage and access for a hauler are provided; and

"3) in the instance of elevation on pilings, that

"a) lots are large enough to permit steps,

"b) piling foundations are placed in stable soil no more than ten feet apart, and

"c) reinforcement is provided for pilings more than six feet above the ground level.

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


"a. prohibit encroachments, including fill,

new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

"b. if the requirements of subsection a, above, are satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of BC 9.05.060, subsection C."


First reading this 2th day of April, 1987. ^{May}
Passed by the Council this 4th day of ~~April~~, 1987.
Approved by the Mayor this 5th day of ~~April~~, 1987. ^{May}

ATTEST:



ANN L. JOHNSON, City Recorder

APPROVED:



LARRY D. COLE, Mayor