

**ORDINANCE NO. 647**

**AN ORDINANCE OF THE CITY OF WILSONVILLE AMENDING WC 4.172 - FLOOD PLAIN REGULATIONS AND WC 4.001 - DEFINITIONS; ADOPTING FEMA'S REVISED FLOOD INSURANCE RATE MAPS (FIRM) EFFECTIVE DATE JUNE 17, 2008 AND THE SUPPORTING FLOOD INSURANCE STUDY (FIS)**

WHEREAS, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) has undertaken a national map modernization project resulting in updated Flood Insurance Rate Maps (FIRM) for Clackamas County and incorporated areas; and

WHEREAS, the City of Wilsonville is a participating municipality in the National Flood Insurance Program (NFIP), and is required to update its flood plain regulations (WC 4.172), adopt the new FIRM's dated 'Effective June 17, 2008', and the supporting Flood Insurance Study (FIS) as a requirement of continued participation; and

WHEREAS, participation in the NFIP benefits affected citizens of the community by lowering flood insurance rates for structures located in the flood plain; and

WHEREAS, in order to remain in good standing in the NFIP, the City is required to adopt the FIS, FIRM's and amend WC 4.172 consistent with FEMA requirements found in 44 CFR Section 60.3 of the NFIP, prior to the effective date of June 17, 2008; and

WHEREAS, it is in the best interest of the citizens of the community from a public health and safety standpoint to adopt the required maps, studies and amend the code consistent with the FEMA requirements and remain in the NFIP; and

WHEREAS, City staff has coordinated closely with FEMA Region X staff, and the Department of Land Conservation and Development (DLCD) staff as part of the map adoption and code update process; and

WHEREAS, DLCD staff, Oregon's designated flood map modernization coordinators, have reviewed the proposed code amendments, and have provided supporting comments; and

WHEREAS, City staff have worked closely with FEMA Region X and their consultants throughout the draft FIRM review process to correct mapping discrepancies; and

WHEREAS, the final FIRM's reflect corrections consistent with the City's formal protest; and

WHEREAS, after providing notice to affected parties inviting comment on the proposal, the Planning Commission held a public hearing on this matter on March 12, 2008 receiving no public comment; and

WHEREAS, the Planning Commission forwarded a unanimous recommendation of approval of the proposal to the City Council; and

WHEREAS, the City Council held duly noted public hearings on April 7, 2008 and April 21, 2008, affording interested parties an opportunity to comment on the proposed Planning and Land Development Code amendments and adoption of the FIS and FIRM's;

NOW, THEREFORE, THE CITY OF WILSONVILLE ORDAINS AS FOLLOWS:

**Section 1.** Wilsonville Code section 4.001 - Definitions is amended by adding the following definitions in bold text as follows. The bold text is inserted, strikethrough text is removed, and the remainder of definitions renumbered:

**Section 4.001     Definitions.**

In addition to the definitions set forth in Section 4.001, below, for the purpose of this Chapter, the following terms are hereby defined. The word "occupy" includes premises designed or intended to be occupied. The word "shall" is always mandatory. All other words shall have the following respective meanings, unless the context otherwise requires:

1.     Abutting: See Adjoining.
2.     Access, Vehicular: The designed location of ingress and egress, where vehicles enter or leave property.
3.     Access, Pedestrian: The designed location of ingress and egress, where pedestrians enter or leave property.
4.     Access Control Strip: A reserve area established adjacent to and paralleling a half street improvement to insure proper participation by adjoining properties in completion of the required street improvements. See Street, Half.
5.     Access Drive: A private travel lane primarily used as a means of approach for vehicles.
6.     Accessory Building or Use: A subordinate building or use, the function of which is clearly incidental to that of the main building or use on the same lot. An accessory use may be located on a lot adjoining that of the main use if approved for this purpose through the Administrative Review procedures of Section 4.030.
7.     Accessory Dwelling Unit: A dwelling unit of not more than 600 square feet on the same lot as a single family dwelling, and being of substantially the same exterior design as that single family dwelling, whether attached or detached.
8.     Address Overlay Zone: Distinct areas within the Villebois Village Center where additional information is provided for the definition of architectural character and community elements. [Definition added by Ord. No. 595, 12/5/05.]

9. Adjacent: See adjoining.
10. Adjoining: Contiguous or abutting exclusive of street width. It shall include the terms adjacent, abutting or contiguous.
11. Agriculture: The use of land larger than one acre for the primary purpose of deriving income from growing plants on land including, but not limited to, land used principally for the production of crops, land used for orchards or production of fruit, but not including land used primarily for another use and incidentally for growing plants, crops, or fruit.
12. Alley: A minor access way which is used to provide vehicular ingress and egress to the back or side of properties otherwise abutting on a street. An alley typically has a width of no more than twenty (20) feet.
13. Alteration, Structural: Any change or repair which would tend to prolong the life of the supporting members of a building or structure, such as bearing walls, columns, beams or girders.
14. Ancillary Telecommunication Facilities: The structures and equipment required for operation of the telecommunication equipment, including but not limited to antennae, repeaters, equipment housing structure, footings and foundations, and ventilation or other electrical or mechanical equipment. [Added by Ord. #479, 5/19/97]
15. Antenna(e): Any exterior, apparatus, electrical conductor or group of electrical conductors, the surface of which is designed for telephonic, radio or television communications by sending and/or receiving radio-frequency or electromagnetic waves, including those sent and/or received by wireless communication facilities. Antennae include the following types:
  - A. Directional or Parabolic (“panel” or “disk”) antenna, which receives and transmits signals in a directional pattern typically encompassing an arc of 120 degrees.
  - B. Omni-direction (“whip”) antenna, which receives and transmits signals in a 360-degree pattern.
  - C. Other, which means all other transmitting or receiving equipment not specifically described herein. Other antennae shall be regulated in conformity with the type of antenna described herein which most closely resembles such equipment. For purposes of this ordinance, the term antenna shall not include ancillary antennae, which are antennae less than 12 inches in their largest dimension and are not directly used to provide personal wireless communication services. (Added by Ord. #479, 5/19/97)
  - D. Satellite Dish antenna, which receives signals from satellites.
16. Apartment: A type of multi-family dwelling.
17. Appeal: Means a request for a review of any land use decision or interpretation of any provision of this ordinance.
18. Appropriate Potential Tree Height: The Appropriate Potential Tree Height (APTH) is used to delineate certain areas adjacent to the riparian corridor. The APTH is the mature average height of the appropriate tree species that does or could potentially grow on the site. The term “appropriate” is meant to limit the potential tree species to those species that provide critical riparian functions, and are appropriate and

acceptable on the specific site based on such factors as public safety, property protection, zoning and other factors. The minimum APTH is fifty feet.

19. Arborist: An arborist who is a member of the American Society of Consulting Arborists (ASCA) or is certified by the International Society of Arboriculture, or an ornamental horticulturist or urban forester who possesses equivalent credentials and experience, and who is approved by the City Planning Director.
20. Architectural Character: The distinctive qualities of the form, features, details, color and ornamentation that comprise a style of building.
21. Area of Limited Conflicting Uses: See Section 4.139.00
22. 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.
23. 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. This is the area subject to a base flood event. Designation on FIRM maps always includes the letters A or V.
24. Attached Family Dwelling Units: A building or structure designed to house two (2) or more families, whether related to each other or not.
25. Attached Wireless Communication Facility: A wireless communication facility that is affixed to an existing structure, (e.g., an existing building wall or roof, mechanical equipment, or alternative tower structure. [Added by Ord. #479, 5/19/97]
26. Attachment: An antenna or other piece of related equipment affixed to a transmission tower. [Added by Ord. #479, 5/19/97]
27. Accessory Dwelling Unit: A dwelling unit of not more than 600 square feet on the same lot as a single family dwelling, and being of substantially the same exterior design as that single family dwelling, whether attached or detached.
28. 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 FIRM maps always includes the letters A or V.
29. Basement: A portion of a building which has less than one-half (1/2) of its height measured from finished floor to finished ceiling above the average elevation of the adjoining grade.
30. Bed and Breakfast Home or Boarding House: A building or premises used for the provision of lodging and meals, where not more than five (5) rooms are available for rent.
31. Bikeway: Bikeway is a general term used to describe any type of travel way that is designated for use by bicycles. Bikeways may include bike lanes, bike paths, shared roadways, shoulder bikeways and other bikeways.
  - A. Bike Lane: A bike lane facility is a type of bikeway where a section of the roadway is designated for exclusive bicycle use.

- B. Bike /Pedestrian Path: A bike/pedestrian path facility is a type of bikeway that is entirely separate from the roadway and is designed and constructed to allow for safe use by both pedestrians and bicyclists.
  - C. Recreational Trail: A recreation trail is a type of pedestrian or equestrian facility that is entirely separate from roadways and has unimproved, gravel, or bark dust surface.
  - D. Shared Roadway: A shared roadway facility is a type of bikeway where motorists and cyclists occupy the same roadway area.
  - E. Shoulder Bikeway: A shoulder bikeway facility is a type of bikeway where cyclists occupy the paved roadway shoulder. Shoulder bikeways are common in rural areas.
32. Block: A tract of land bounded by streets, or bounded by such features as the City limits or barriers such as bodies of water or steep slopes.
  33. Block Complex: An assemblage of buildings bounded entirely by intersecting streets so as to form a single, comprehensive group.
  34. Block Perimeter: The outer boundary of a block.
  35. Board: The Development Review Board established pursuant to Chapter 2 of the Wilsonville Code.
  36. Buffers or Buffering: Distance, landscaping, walls, berms, or other measures used to separate one land use from another, and to mitigate or minimize the adverse effects of one land use on another.
  37. Build-To Line: A line shown on a final plat or other development plan indicating that buildings are required to be built to it, rather than set back from it.
  38. Building: Any structure built for the support, shelter or enclosure of any persons, animals, chattels, or property of any kind which requires location on the ground or is attached to something having a location on the ground.
  39. Building Façade: The exterior elevation(s) of a building; usually set parallel to the front lot line, often distinguished by elaboration of architectural characteristics.
  40. Building Façade, Primary: The main exterior elevation of a building; usually associated with its primary entrance and/or street address.
  41. Building Frontage Width, Minimum: A Development Standard that controls the degree of spatial definition of public open space. Described as a percentage, the Minimum Building Frontage Width is calculated as the ratio of the length of the primary building façade(s) to its corresponding lot line length, exclusive of required setbacks.
  42. Building Line: A line that is adjacent to the front side of a main building parallel to the front lot line.
  43. Building or Structure Height: The term 'height of building or structure' shall be deemed to mean the perpendicular distance from the average elevation of the adjoining ground to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the middle height gable between the eaves and ridge of a pitch or hip roof. If a building is divided into units by means of masonry division walls, each unit shall be considered separately in calculation for height of building.

44. Category of Use: Type of use. See Mixed Use.
45. Change of Use: Within the Willamette River Greenway means making a different use of the land or water than that which existed on December 6, 1975. It includes a change which requires construction, alterations of the land, water or other areas outside of the existing buildings or structures and which substantially alters or affects the land or water. It does not include a change of use of a building or other structure which does not substantially alter or affect the land or water upon which it is situated. The sale of property is not in itself considered to be a change of use. An existing open storage area shall be considered to be the same as a building. Landscaping, construction of driveways, modifications of existing structures, or the construction or placement of such subsidiary structures or facilities as are usual and necessary to the use and enjoyment of existing improvements shall not be considered a change of use for the purposes of Sections 4.500.
46. Civic: Relating to, or derived from, a city or citizen.
47. Civic Building or Place: A building or place that functions communally, such as religious, cultural, environmental or educational institutions.
48. Clear Vision Area: A standard for sight lines at intersections of streets, railways, and driveways. See section 4.125.09, Street Improvement Standards.
49. Cluster Housing: Small lot detached single-family dwellings arranged in groups, with a courtyard(s) containing shared green space and a public access sidewalk easement.
50. Commercial: Development having to do with retail, service, commercial recreation, and/or office uses.
51. Community Center: A structure for the social, cultural, and educational activities of an entire neighborhood or group of people having common rights, privileges, or interests, or living in the same place under the same laws and regulations.
52. Community Elements Book: A plan which is used to establish the type and location of community elements within the Village zone. Community elements may include lighting, site furniture, , bollards, trash receptacles, recycling receptacles, benches, bicycle racks, , and playground equipment. The Community Elements Book also includes a Street Tree Master Plan and Lighting Master Plan.
53. Community Housing: Dwellings developed as defined by ORS 426.502(2).
54. Collocation: The use or placement of two or more antenna systems or platforms by separate FCC license holders on a single support structure, transmission tower or building. [Added by Ord. #479, 5/19/97]
55. Commercial Nursery or Tree Farm. A plant or tree nursery or tree farm where trees are planted and grown on the premises for sale in the ordinary course of business, but not including commercial woodlots, or land that is designated or assessed as forest land for tax deferral purposes or managed for timber production.
56. Commercial Recreation: A planned development commercial center or complex of recreational and complimentary uses. Typical uses include miniature golf courses, bowling alleys, theaters, tennis and racquetball clubs, health spas, swim centers, pool halls and sports complexes. Appropriate complimentary uses would include restaurants and sporting goods stores.

57. Commercial Woodlot. A site of at least 30,000 square feet on which trees are grown for the purpose of harvesting, and which is assessed as forest land for tax deferral purposes, and which is not a part of the approved open space or landscaping of a previously approved development.
58. Commission: The Planning Commission of the City established in Chapter 2 of the Wilsonville Code.
59. Comprehensive Plan: The City of Wilsonville Comprehensive Plan (effective date June 7, 2000).
60. Conditional Use: A use allowable if processed in accordance with the procedures listed in Section 4.512 and 4.184.
61. Conference Center: A facility where the primary function is the formal gathering of large groups of people.
62. Contiguous: See Adjoining.
63. Convenience Store: A retail business that provides for the purchase of limited food and household sundries.
64. **Critical Facility: Facilities for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste.**
65. Crown Cover: The area within the drip line or perimeter of the foliage of a tree.
66. Curb Line: The line indicating the edge of the vehicular roadway within the overall right-of-way.
67. DATELUP: An acronym for the Dammasch Area Transportation-Efficient Land Use Plan, which is the City of Wilsonville's 1997 adopted land-use plan within the Comprehensive Plan Area of Special Concern "B".
68. Design: The conceptualization of the built environment in response to specific sets of human needs and desires.
69. Design Standards, Village Center: Criteria applicable to the design and construction of development within the Village Center, to guide the selection and arrangement of building elements to achieve a minimum level of quality and consistency in the finished product.
70. Design Principles, Village Zone: The fundamental concepts that support the objectives of the Master Plan and guide the intrinsic qualities of the built environment within the Residential Village Plan District. Design Principles are implemented through conformance with the Design Standards.
71. Design Standards, Village Zone: Criteria applicable to the design and construction of development within the Village zone, to guide the selection and arrangement of building elements to achieve a minimum level of quality and consistency in the finished product.
72. Density: The number of residential units per acre of land.
73. Development: Any human-caused 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 flood plain~~ or **storage of equipment or materials located within the area of special flood hazard.**

74. Development Standards: Criteria established for initial planning of any change to improved or unimproved real estate that determines the relative size and arrangement of common building elements in order to achieve a certain level of quality and consistency in the built environment.
75. Diameter Breast Height (d.b.h.): A tree's diameter in inches measured by diameter tape at four and one-half (4-1/2) feet above grade. On multi-stem trees, the largest diameter stem shall be measured.
76. Director: The Planning Director as established in Section 2.190 of the Wilsonville Code. As used in this Chapter, the term "Planning Director" also applies to other staff persons or consultants specifically assigned to act on behalf of the Director.
77. Drip Line: An imaginary vertical line extending downward from the outermost tips of the tree branches to the ground.
78. Duplex: Two dwelling units on a single lot, neither of which meets the definition of an accessory dwelling unit.
79. Dwelling: A building, mobile home, or manufactured home, designed for residential occupancy, but not a house trailer or recreational vehicle.
80. Dwelling, Multiple Family: Three or more attached dwelling units located on a single tax lot. In the Village zone, such use also includes stacked flats or townhouses.
81. Dwelling, Single Family: A dwelling unit designed for occupancy by one family. A single-family dwelling may be detached or attached, provided that each such unit is located on its own tax lot. A single-family dwelling may also include an accessory dwelling unit, if approved for that use as specified in this Code.
82. Dwelling Unit: A building or portion thereof providing complete housekeeping facilities for one family, including a kitchen and bathroom, but not a trailer house or other recreational vehicle.
83. Encroachment Area: See Section 4.139.00
84. Equipment Enclosures: A small structure, shelter, cabinet or vault used to house and protect the electronic equipment necessary for processing wireless communication signals. Associated equipment may include air conditioning and emergency generators. [Added by Ord. #479, 5/19/97]
85. Essential Government Services. Services and facilities provided by a governmental unit, that are basis and inherent to the public health and welfare including, but not limited to, fire, police, water, sewer, transportation, emergency communication, and education, and governmental services and facilities in support thereof. [Added by Ord. 545, 8/19/02]
86. Exempt tree or vegetation: As used in the solar access provisions of this Code, the terms "exempt tree or exempt vegetation" refer to the full height and breadth of vegetation that has been identified by the City as "solar friendly," and any vegetation listed as exempt on a plat, a document recorded with the plat, or a solar access permit.

87. **Existing Manufactured Home Park or Subdivision**: 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.
88. **Exterior Display**: The outdoor exhibit of merchandise by a retail merchant.
89. **Family**: One or two persons with or without their direct descendants and adopted children (and including domestic employees thereof) together with not more than five (5) persons not so related, living together in a room or rooms comprising a single housekeeping unit. Every additional group of five (5) or fewer persons living in such housekeeping unit shall be considered a separate family. For housing developed to implement ORS 426.508 or under the Fair Housing Amendments Act of 1988, family shall mean all persons living in a dwelling unit, regardless of relationship.
90. **Feasible**: Able to be accomplished, considering all aspects of preservation and proposed site development, including the cost of mitigation and relocation.
91. **Fill**: Any act by which earth, sand, gravel, rock, structures or any similar material is deposited, erected, placed, pulled or transported, including the conditions resulting therefrom, whether within the limits of the 100-year flood plain or not.
92. **Final Development Plan**: A plan that includes a final map and other writing containing all the descriptions, locations, specifications, dedications, provisions and information concerning a land development, in the form required by Section 4.125(.18).
93. **Flag Lot**: A flag-shaped lot located behind another lot where the frontage on the street is only wide enough for its vehicular and pedestrian access; often found at the end of a street or adjacent to the outside corner of an L-shaped block.
94. **Flood or Flooding**: General and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters, and/or the unusual and rapid accumulation of runoff of surface waters from any source.
95. **Flood Insurance Rate Map (FIRM)**: The official map prepared for the City of Wilsonville on which the Federal Insurance Administration has delineated both the flood plain and the risk premium zones applicable to the community.
96. **Flood Insurance Study**: The official report prepared for the City of Wilsonville by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.
97. **Flood Plain**: Flood-prone areas as identified on the FIRM.
98. **100-Year Flood Plain**: Land adjacent to a floodway that has a one percent chance of flooding in any given year, and as identified within the "A" zones of the FIRM.
99. **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.
100. **Floodway Fringe**: That portion of the flood plain not contained in the floodway.

101. Floodway Map: An official map prepared for the City of Wilsonville by the Federal Insurance Administration which identifies floodways.
102. Floor Area: The area of the building, exclusive of porches and exterior stairs which shall extend to the exterior faces of all walls. Floor area shall include all levels within a structure, including mezzanines and additional stories above the first floor. Within a residential structure, floor area does not include garages or carports.
103. Front lot line: For purposes of the solar access regulations, a lot line abutting a street. For corner lots the front lot line is that with the narrowest frontage. When the lot line abutting a street is curved, the front lot line is the chord or straight line connecting the ends of the curve. For a flag lot, the front lot line is the shortest lot line adjoining the pole portion of the lot, excluding the unbuildable portion of the pole (see Figure 2: Front Line Lot).
104. Garage: Enclosure for the storage of vehicles.
105. Garage, private: An accessory building or portion of a main building used for the parking or temporary storage of vehicles owned or used by occupants of the main building.
106. Grocery Store: A retail business that sells food and household sundries.
107. Grocery Store, Specialty: A retail business that sells specialty food and specialty household sundries.
108. Habitable floor: Any floor usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof. A floor used only for storage purposes is not a "habitable floor".
109. Hearing Body: The City Council, the Development Review Board, or the Planning Commission having the authority to review an application assigned by Section 4.031, Section 4.032, and Section 4.033.
110. Heritage Tree: A tree that, due to age, size, species, quality or historic association, is considered of landmark importance to the community and has been designated as such by the City Council.
111. Home Business: A business operating from a dwelling unit that does not meet the definition of a "Home Occupation" listed below, and for which a conditional use permit has been issued by the City.
112. Home Occupation: "Home Occupation" means an occupation, profession, or craft, which is customarily incidental to or carried on in a dwelling place or premises and not one in which the use of the premises as a dwelling place is largely incidental to the business use. A home occupation is carried on by an immediate member of the family residing within the dwelling place. A home occupation shall require no structural alteration or changes to the exterior of the dwelling, and shall include no display of merchandise on the premises which can be seen from the exterior of the dwelling. Any instruction shall be limited to one pupil at a time. Noise, odor, smoke, gases, fallout, vibration, heat or glare resulting from the use shall not be of the intensity as to be detected outside of the containing structure. Traffic and parking are to be such as to give no outward appearance that a business is being conducted on the premises.

113. Hospital: A building or premises providing in-patient services that is used for human medical or surgical treatment.
114. Hospital, Animal: A building or premises for the medical or surgical treatment of domestic animals or pets, including dog, cat and veterinary hospitals.
115. Hotel, Motel, or Overnight Lodging Facility: A building which is designed or used to offer lodging, with or without meals, for compensation, for six (6) or more people.
116. Human Occupancy: For purposes of Section 4.172(.02)(C.)(4.), any structure usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof, is considered to be for human occupancy. A structure used only for storage purposes is not for "human occupancy." [Added by Ordinance No. 538, 2/21/02.]
117. Impact Area: See Section 4.139.00
118. Impervious Area: An area with minimal infiltration of surface water into the underlying soil and shall include pavement (including but not limited to concrete or asphaltic concrete surfaces), gravel roads, structures, roadways, and roofs.
119. Intensification of Use: Within the Willamette River Greenway means any additions which increase or expand the area or amount of an existing use, or the level of activity. Remodeling of the exterior of a structure not excluded below is an intensification when it will substantially alter the appearance of the structure. Maintenance and repair usual and necessary for the continuance of an existing use is not an intensification of use. Reasonable emergency procedures necessary for the safety or the protection of property are not an intensification of use. Residential use of land within the Greenway includes the practices and activities customarily related to the use and enjoyment of one's home. Landscaping, construction of driveways, modification of existing structures or construction or placement of such subsidiary structures or facilities adjacent to the residence as are usual and necessary to such use and enjoyment shall not be considered an intensification for the purposes of this Code. Seasonal increases in gravel operations shall not be considered an intensification of use.
120.  kennel: Any lot or premises on which four (4) or more dogs, more than four (4) months of age, are kept for boarding, breeding or sales.
121. Lane: See "Alley
122. Landscaping: The term "landscaping" includes trees, grass, shrubs, flowers, water features, and garden areas, and the arrangement of paths, walkways, fountains, patios, decks, fencing, street furniture and ornamental concrete or stonework areas, earth forms such as grading, mounding and contours and shall include exterior use of artificial turf or carpeting, artificial plants, shrubs or flowers. Both native and non-native vegetation may constitute landscaping materials. This definition pertains to complete site modifications rather than just buildings.
123. Legislative process: A process that leads to the adoption of rules or policies that have broad implications for a large geographic area or for the community overall.
124. Light Manufacturing: Low- to moderate-impact industrial, manufacturing, processing, and assembly uses that exhibit benign external characteristics compatible with the character and overall design of a Residential Village environment.

125. Lighting Master Plan: A plan that indicates the criteria for, and general location of exterior lighting within the Village zone. See also Community Elements Book.
126. Lot: A unit of land owned by or under the lawful control and in the lawful possession of one distinct ownership, or separated from other land by a drawing on a recorded subdivision or partition plat, for separate individual use or development.
127. Lot Area: The total horizontal area within the lot lines of a lot, excluding the driveway portion of a flag lot.
128. Lot Coverage: The area of a lot covered by all of the buildings on that lot, expressed as a percentage of the total lot area.
129. Lot Depth: The lot depth is the mean average distance between the front lot line and rear lot line of a lot measured within the lot boundaries.
130. Lot, Front: The boundary line of a lot abutting a street, other than a boundary line along a side or rear yard. If the lot does not abut a street, the narrowest boundary line shall be considered to be the front.
131. Lot, Key: A lot, the side line of which abuts the rear line of one or more adjoining lots.
132. Lot Line, Front: The boundary line of a lot abutting a street, other than a boundary line along a side or rear yard. If the lot does not abut a street, the narrowest boundary line shall be considered to be the front. In the Village zone: the case of an interior lot, the lot line separating the lot from the public space, public street or private way, other than an alley. In the case of a corner lot, the shortest lot line along a public space, public street or private way, other than an alley. The boundary line of a lot abutting a street, other than a boundary line along a side or rear yard. If the lot does not abut a street, the narrowest boundary line shall be considered to be the front.
133. Lot Line, Rear: Any boundary line opposite and most distant from a front line and not intersecting a front lot line, except in the case of a corner lot.
134. Lot Line, Side: Any boundary line not a front or rear lot line.
135. Lot, Through: Any lot, except a corner lot, that abuts two or more streets other than a freeway.
136. Lot, Width: The 'lot width' is the mean horizontal distance between the side lot lines of a lot measured within the lot boundaries.
137. 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.
138. Major Alteration: Any change, enlargement or modification to existing site improvements or structures, or use thereof or any which substantially alters the exterior appearance or function of the site or building or increases the previous floor area by an amount equal to or greater than one-third.
139. Manufactured Dwelling: Includes residential trailer, mobile home, mobile house, trailer and manufactured home. This definition does not include any building or

structure subject to the structural specialty code adopted pursuant to ORS 455.100 to 455.450 or any unit identified as a recreational vehicle by the manufacturer.

140. **Manufactured Home**: A structure **built on a permanent chassis and designed for use with or without a permanent foundation when attached to the required utilities**, for movement on the public highways, that has sleeping, cooking and plumbing facilities, that is intended for human occupancy, and was constructed in accordance with Federal Manufactured Housing Construction and Safety Standards regulations in effect at the time of construction. (Amended, Ord. #317, 11/4/87). For flood plain management purposes, the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For flood insurance purposes, and City zoning standards, the term "manufactured home" does not include park trailers, travel trailers and other similar vehicles.
141. **Manufactured Home or Mobile Home Park**: Means a parcel (or contiguous parcels) of land divided into two or more spaces that are rented or leased for the placement of manufactured or mobile homes.
142. **Manufactured Home or Mobile Home Subdivision**: Means a group of three (3) or more separate lots intended for the location of manufactured or mobile homes, and which lots may be rented or sold.
143. **Master Plan**: See "Villebois Village Master Plan".
144. **Master Planner**: A professional team selected by the City of Wilsonville and the State of Oregon in accordance with ORS 426.508 to master plan the area prescribed in DATELUP.
145. **Master Signage and Wayfinding Plan**: A plan that describes the design principles and standards of public and private signage and wayfinding elements within the Village zone.
146. **Mixed Solid Waste**: Solid Waste that contains recoverable or recyclable materials and materials that are not capable of being recycled or recovered for further use. [Amended by Ord. # 426 - April 4, 1994]
147. **Mixed Use**: A development in which a site or building provides more than one type of use, such as commercial and residential
148. **Mobile Home**: A structure constructed for movement on the public highways that has sleeping, cooking, and plumbing facilities, that is intended for human occupancy, and that was constructed between January 1, 1962, and June 15, 1976, and met the construction requirements of the Oregon mobile home law in effect at the time of construction. [Amended by Ord. #317, 11/4/87]
149. **Modular Home**: A structure intended for residential use that has sleeping, cooking and plumbing facilities and is constructed off-site in compliance with the Uniform Building Code (Oregon State Structural Specialty Code) and designed to be transported to a site for installation and/or assembly of modular components to form a permanent structure. [Amended by Ord. #317, 11/4/87].
150. **Native**: As applied to any tree or plant, this term means indigenous to the northern Willamette Valley.

151. Neighborhood: An urban sector of multiple uses served by a network of pedestrian-friendly streets and alleys within approximately ¼ mile in radius. Neighborhoods are defined by arterial or collector streets and/or open space at their edges and include a Neighborhood Commons at their center.
152. Neighborhood Center: An area of mixed-use buildings at or near the center of a neighborhood, providing nearby residents with convenient access to goods and services.
153. Neighborhood Commons: A site within a neighborhood, for use by local residents, which may include a transit shelter and waiting place for transit riders, and public space, providing a social gathering place.
154. Neighborhood Commercial: A planned development commercial center or complex of commercial uses to provide for the daily convenience, goods and services of nearby residential areas. Typical uses include grocery, hardware, and drug stores; barber and beauty stores; banks; laundry and dry cleaning; and professional offices, but exclude service stations.
155. **New Construction: For purposed of flood plain management, structures for which the "start of construction" commenced on or after June 17, 2008.**
156. New Facility: The installation of a new transmission tower. New attachments are not new facilities. [Added by Ord. #479, 5/19/97]
157. 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) was completed on or after the effective date of flood plain management regulations adopted by the City.
158. Non-Conforming Lot: A legally created lot or parcel that does not conform in terms of area, width, depth, or other dimensions with the standards of the zone in which it is located.
159. Non-Conforming Site Conditions: A legally established site that does not conform with the landscaping, parking or other site development standards of the zone in which it is located. A site may be rendered non-conforming to development standards through a change in zoning requirements or through the acquisition of some portion of the property by a public agency. For purposes of this Code, a site for which Stage II Planned Development approval has been granted by the City, and which approval remains in effect, shall not be deemed non-conforming. [Amended by Ordinance No. 538, 2/21/02.]
160. Non-Conforming Structure: A legally established building or other structure that does not conform with the height, setback, area, lot coverage, or other standards for structures of the zone in which it is located. A structure may be rendered non-conforming through a change in zoning requirements or through the acquisition of some portion of the property by a public agency. For purposes of this Code, a structure for which Stage II Planned Development approval has been granted by the City, and which approval remains in effect, shall not be deemed non-conforming. [Amended by Ordinance No. 538, 2/21/02.]

161. Non-Conforming Use: A legally established use, which was established prior to the adoption of the zoning use requirements for the site with which it does not conform. For purposes of this Code, a use for which or Stage II Planned Development approval has been granted by the City, and which approval remains in effect, shall not be deemed non-conforming. [Amended by Ordinance No. 538, 2/21/02.]
162. Northern lot line: The lot line that is the smallest angle from a line drawn east-west and intersecting the northernmost point of the lot, excluding the pole portion of a flag lot. If the north line adjoins an undevelopable area other than a required yard area, the northern lot line shall be at the northern edge of such undevelopable area. If two lot lines have an identical angle relative to a line drawn east-west, or if the northern lot lines is less than 35 feet, then the northern lot line shall be a line 35 feet in length within the lot parallel with and at a maximum distance from the front lot line (see Figure 3: Northern Lot Line in Section 4.137).
163. North-south dimension: The length of a line beginning at the mid-point of the northern lot line and extending in a southerly direction perpendicular to the northern lot line until it reaches a property boundary (see Figure 4: North-South Dimension of the Lot in Section 4.137).
164. Office: A use category designating buildings commonly used as a workplace for professional or government functions.
165. Office Complex: A planned development commercial center or complex of administrative, professional and general office uses. Typical uses include governmental, financial, architectural, medical, dental, legal, real estate, accounting, insurance and general business offices.
166. Office Complex - Technology. Applies to office uses in an industrial, typically high-technology, setting, including research and development, software or hardware development, telecommunication or data manipulation operations.  
Typically in an industrial campus setting, Technology-Office Complexes are expected to generate less traffic than general office uses.  
Technology-Office Complex is not intended to apply to general office uses such as medical offices, real estate sales offices, or similar operations that are more appropriately the predominate uses in non-industrial areas.
167. Official Map: The map established by the City Council on which the plan locations, particularly of streets, are indicated with detail and exactness so as to furnish the basis for property acquisition, building restrictions, building permits, zoning or other uses, the original -of which is on file in the office of the City Recorder.
168. Open Space: Land that is not covered by buildings, paving , or other hard surfaces, unless such hard surfaces are part of an approved landscape plan.
169. Open Space Area: A specific measurement. See Section 4.125(.08), Open Space.
170. Ornamentation: The details of shape, texture, and color that are deliberately added to a structure for decorative effect.
171. Outdoor Dining Area: A space designated for commercial dining, partially bounded by building walls, screening or property lines, but open to the sky, and open on at least one side to a street or public space.

172. Outdoor Living Area: Outdoor recreational area intended for the use of the residents of the development. In order to be considered "outdoor living area" it must be usable and accessible by the residents of the development.
173. Parking Facility, Commercial: A surface lot or parking structure that is operated as a business and is not integral to a specific use or uses within Villebois.
174. Parking Space: A permanently surfaced and marked area not less than nine (9) feet wide and eighteen (18) feet long, excluding paved area necessary for access, for the parking of a motor vehicle.
175. Parking Space, Accessible: A permanently surfaced and marked area meeting the standards established by ORS 447.233. Such spaces shall be appropriately reserved and signed for use by the disabled and shall be subject to any additional standards of the Americans with Disabilities Act (ADA) or other applicable provisions of local, state or federal law.
176. Parking Space, Compact: A permanently surfaced and marked area not less than eight (8) feet wide and sixteen (16) feet long, excluding paved area necessary for access, for the parking of a compact motor vehicle. In order to be considered a compact parking space, it must be clearly labeled as such.
177. Parking Space, Handicapped: Be designed for safe and convenient access that meets ADA and ODOT standards. All parking areas which contain ten (10) or more parking spaces, shall for every fifty (50) standard spaces, provide one ADA-accessible parking space that is constructed to building code standards, Wilsonville Code 9.000. [Amended by Ordinance No. 538, 2/21/02.]
178. Parking Space, Motorcycle: A permanently surfaced and marked area not less than four (4) feet wide and eight (8) feet long, excluding paved area necessary for access, for the parking of a compact motor vehicle. In order to be considered a motorcycle parking space, it must be clearly labeled as such.
179. Partition:
- A. "Partition" means either an act of partitioning land or an area or tract of land partitioned under the provisions of Section 4.200. As used in this Code, a land partition may be either a "major" or "minor" partition, as those terms are commonly used.
  - B. "Partition land" means to divide an area or tract of land into two or three parcels when such area or tract of land exists as a unit or contiguous units of land under single ownership. "Partition land" does not include divisions of land resulting from lien foreclosures, and divisions of land made pursuant to a court order, including but not limited to court orders in proceedings involving testate or intestate succession; and "partition land" does not include any adjustment of a lot line by the relocation of a common boundary where an additional parcel is not created and where the existing parcel reduced in size by the adjustment is not reduced below the minimum lot size established by any applicable zoning ordinance.
180. Pathway: A pathway is a pedestrian facility that is entirely separate from the roadway and generally serves as an on-site pedestrian system for multi-family, commercial and

industrial developments. The Americans with Disabilities Act defines a pathway as an "Exterior Accessible Route."

181. Pattern Book: An illustrative document that depicts the architectural character of a proposed development, in compliance with the Design Principles and Design Standards. See Section 4.125.15, Pattern Book.
182. Pedestrian Access: A path of travel to approach and enter a building , or open space on foot.
183. Permit (Tree cutting): Approval to remove trees according to the following categories:
  - A. Type A - Permits removal of one to three trees within a twelve (12) month period on any property.
  - B. Type B - Permits removal of four or more trees on any property (a) not subject to site development review, or b) previously approved for site development, and is c) not in a commercial woodlot.
  - C. Type C - Permits removal of trees on property under a site development application.
  - D. Type D - Permits removal of trees on a commercial woodlot.
184. Permit Grantee: Any person, including the person's successors-in-interest, whose application for a Permit has been approved, or who is acting on the permit grantee's behalf with the grantee's consent.
185. Person: Any individual or legal entity.
186. Phasing: To plan and then carry out development in stages over time. The length of time will be determined by several factors, including response to market conditions, availability and capacity of existing utilities and infrastructure, and timing of road improvement approval and funding.
187. Planning Commission: The Planning Commission of the City of Wilsonville established in Chapter 2 of the Wilsonville Code.
188. Planning Director: The Planning Director as established in Section 2.190 of the Wilsonville Code. As used in this Chapter, the term "Planning Director" also applies to other staff persons or consultants specifically assigned to act on behalf of the Planning Director.
189. Plat: A map, diagram, drawing, replat or other writing containing all of the descriptions, locations, specifications, dedications, provisions and information concerning a subdivision, condominium division or land partition. A tentative plat is one that is prepared for review and consideration by the City. A final plat is one that is prepared for recordation with the County after the City has approved the tentative plat.
190. Plaza: A public space at the intersection of important streets, as illustrated and described in the Villebois Village Master Plan, for civic purposes and commercial activity.
191. Porch: An open-air room appended to the mass of a building, with floor and roof.
192. Pre-existing Towers and Pre-existing Antennae: Any tower or antennae for which a building permit has been properly issued prior to the effective date of this ordinance.  
[Added by Ord. 479, 5/19/97]

193. Preliminary Development Plan: A conceptual and quantitatively accurate representation of a defined area within an approved Specific Area Plan, in the form required by Section 4.125(.18).
194. Premises: A site with or without buildings.
195. Professional-Type Services: A “professional-type service” shall include activities such as those offered by a physician, surgeon, dentist, lawyer, architect, engineer, accountant, artist, teacher, real estate and insurance sales.
196. Protected solar building line: A line on a plat or map recorded with the plat that identifies the location on a lot where a point two feet above may not be shaded by structures or non-exempt trees (see Figure 11: Soar Lot Option 2: Protected Solar Building Line in Section 4.137).
197. Protected Outdoor Space: An outdoor space that is partially protected from direct exposure to the weather by a roof, building walls, and/or other enclosures.
198. Private Way: A private area dedicated to circulation, including the roadway for private streets, bikeways, paths or utilities.
199. Public Space: An area without buildings, reserved for public use, whether owned and maintained by a public or private organization, including but not limited to, plazas, parks, natural preserves, and trails.
200. Public Way: A public area dedicated to circulation, including the roadway or street, bikeways, paths and public utilities.
201. Quasi-judicial process: A process that leads to a decision on a land use or development application involving a single property or small group of properties. (Please see the definition of Legislative Process, above.)
202. Rainwater Management Program: Infrastructure and procedures for the collection, filtration, and conveyance of rainwater.
203. Rainwater Management System: The physical components of the Rainwater Management Program.
204. Rainwater Path: The route of movement of rainwater from building roofs and paved surfaces to the Rainwater Management System.
205. 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.
206. Religious Institution: A building or structure, or groups of buildings or structures, such as a church, synagogue, temple or mosque, that is used for conducting organized religious services, including ceremonies, rituals, and education pertaining to a particular system of beliefs.

207. Remove or Removal: The act of removing a tree by topping, digging up or cutting down, effecting removal through damage, or causing to be removed, transplanted or destroyed.
208. Replacement Area: the mitigation area required to compensate for an encroachment into the SROZ when allowed in accordance within Section 4.139.00
209. Research and Development: Commercial and non-profit establishments primarily engaged in performing laboratory or other physical or biological, primary, basic, or applied research, development and testing. Does not include Light Manufacturing.
210. Residential Facility: As used in ORS 197, a residential facility is a residential treatment or training facility, licensed by the State of Oregon, which provides care, treatment or training for six (6) to fifteen (15) individuals, and which may also provide housing for staff persons who provide services to those individuals. For the purposes of this Code, unless inhabited by a single family, a residential facility is considered to be a form of multiple family residential development.
211. Residential Home: As used in ORS 197, a residential home is a residential treatment or training home, or adult foster home, licensed by the State of Oregon, which provides care, treatment or training for five (5) or fewer individuals, and which may also provide housing for staff persons who provide services to those individuals. For the purposes of this Code, a residential home is considered to be a form of single-family dwelling unit.
212. Residential Trailer: A structure constructed for movement on the public highways, that has sleeping, cooking and plumbing facilities, that is intended for human occupancy, is being used for residential purposes and was constructed before January 1, 1962. [Amended by Ordinance 317, 11/4/87].
213. Residential Village Comprehensive Plan Designation: The area within which the Village zone applies, as illustrated on the Comprehensive Plan Map.
214. Row House: A form of single family dwelling where individual units are arranged in an unbroken row with no intervening side yards, with or without an accessory dwelling unit or building.
215. Right-of-way: The area between boundary lines of a public way.
216. Riparian Corridor: See Section 4.139.00.
217. Riparian Corridor Cross Sections: See Section 4.139.00.
218. Riparian Impact Area: See Section 4.139.00.
219. Roadway: The portion of a street right-of-way developed for use by vehicular traffic.
220. School: An educational facility.
221. School, Commercial: A school operated as a commercial enterprise. See Section 4.125(.04), Conditional Uses.
222. School, Private: Schools, including kindergartens, nurseries, children's or adult day care facilities, play schools, and other such facilities, operated primarily through private funding sources. See Section 4.125(.04), Conditional Uses.
223. School, Public: A school endowed and/or supported by taxation. See Section 4.125(.04), Conditional Uses.

224. Screening: Any construction whose essential function is to visually conceal, as in sight-obscuring fencing or sight-obscuring planting. See Section 4.176.
225. Setback: The distance between a reference line (usually a property line) and the nearest point of a building, or portion thereof. In the Village Zone, see Section 4.125.06, Standards Applying to all Developments.
226. Service Center: A planned development commercial center or complex of uses related to serve the motoring public and located at or near the freeway interchanges. Typical uses include restaurants, motels, automobile and truck service stations and centers.
227. Shade point: The part of a structure or non-exempt tree that casts the longest shadow onto the adjacent northern lot(s) when the sun is at an altitude of 21.3 degrees and an azimuth ranging from 22.7 degrees east and west of true south; except a shadow caused by a narrow object such as a mast or whip antenna, a dish antenna with a diameter of 3 feet or less, a chimney, utility pole, or wire. The height of the shade point shall be measured from the shade point to either the average elevation at the front lot line or the elevation at the midpoint of the front lot line. If the shade point is located at the northern end of a ridgeline of a structure oriented within 45 degrees of a true north-south line, the shade point height computed according to the preceding sentence may be reduced by 3 feet. If a structure has a roof oriented within 45 degrees of a true east-west line with a pitch that is flatter than 5 feet (vertical) in 12 feet (horizontal) the shade point will be the eave of the roof. If such a roof has a pitch that is 5 feet in 12 feet or steeper, the shade point will be the peak of the roof (see Figures 5: Height of the Shade Point of the Structure and Figure 6: Shade Point Height in Section 4.137).
228. Shade reduction line: A line drawn parallel to the northern lot line that intersects the shade point (see Figure 7: Shade Reduction Line in Section 4.137).
229. Shade: As used in the solar access provisions of this Code, a shadow cast by the shade point of a structure or vegetation when the sun is at an altitude of 21.3 degrees and an azimuth ranging from 22.7 degrees east and west of true south.
230. Shadow pattern: A graphic representation of an area that would be shaded by the shade point of a structure or vegetation when the sun is at an altitude of 21.3 degrees and an azimuth ranging between 22.7 degrees east and west of true south (see Figure 13: Shadow Pattern in Section 4.137).
231. Sidewalk: A walkway, within or adjacent to a street right-of-way, paved to City standards.
232. Sight-Obscuring Planting: A dense perennial evergreen planting with sufficient foliage to obscure vision as specified in Section 4.176 and which will reach a height of at least six (6) feet within thirty (30) months after planting.
233. Sign: A device or display used or intended to be used for advertising purposes or used or intended to be used to inform or attract the attention of the public. "Sign" includes, where applicable, the structure, display surface, or other component parts of the device or display. Examples include, but are not limited to, advertising sign, banner, outdoor advertising sign, on-premises sign, temporary sign, window sign, message, light (other than a device used primarily to illuminate a building and/or premise), emblem, figure or, painting, drawing, placard, or poster. The display of merchandise that is offered on

the premises shall not be considered to be a sign unless it is attached to any exterior surface or structure of the building including, but not limited to, roofs, walls, marquees, monuments, or poles. Flags of the United States, State of Oregon, Clackamas or Washington County or City of Wilsonville shall not be considered to be signs and shall not be subject to these regulations.

- A. Addressing Signs: Signs indicating, at a minimum, the numerical address of the building. Such signs are provided in lieu of a street graphics sign.
- B. Building Graphics: building mounted signs.
- C. Changing image sign. Any sign which, through the use of moving structural elements, flashing or sequential lights, lighting elements, or other automated method, results in movement, the appearance of movement, or change of sign image or text.
- D. Directional signs: Signs on private property that provide directions for the traveling public and deemed necessary for the safe traverse of the public.
- E. District Sign: a sign indicating the entrance to a Planned Development containing at least fifty (50) acres.
- F. Electric Sign: any sign containing electric wiring, but not including signs illuminated by an exterior floodlight source.
- G. Flashing Sign: any illuminated sign on which the artificial light is not maintained stationary or constant in intensity or color at all times when such sign is in use. For the purpose of this Code, any moving illuminated sign shall be considered a flashing sign.
- H. Freestanding Sign: A sign erected and maintained on a freestanding frame, mast, or pole not attached to any building, and not including ground-mounted signs.
- I. Ground-mounted Sign: a sign which extends from the ground, or has support which places the bottom of the sign less than two (2) feet from the ground, including monument signs.
- J. Inflatable Sign: any device that depends on a differential between internal and external air pressure to maintain its size, form or shape regardless of whether it is tied, tethered, mounted or connected to a pole, building, or ground.
- K. Institutional Signs: signs that identify public buildings, churches, public and private schools and other such structures used for public gathering or to serve the general public. The Planning Director shall determine the nature of such signs if there is a question. Institutional signage shall comply with all applicable provisions of this Code.
- L. Integral Sign: a sign carved into stone, concrete or similar material or made of bronze, aluminum or other permanent type construction indicating names of buildings, date of erection, monumental citations, commemorative tablets and the like when made an integral part of the structures.
- M. Marquee Sign: a canopy or covering structure bearing a signboard or graphics projecting from, and attached to, a building.
- N. Permanent Sign: any sign that does not meet the definition of a temporary sign, below.

- O. Portable Sign: a sign that is not permanently affixed to a building, structure, or the ground; a sign designed to be moved from place to place; other than garage sale signs and real estate signs. These signs include, but are not limited to movable A-frame signs, sandwich board signs, signs on vehicles or trailers, signs attached to wood or metal frames designed to be self-supporting and movable, including trailer reader boards, paper, cardboard or canvas sign wrapped around supporting poles.
  - P. Projecting Sign: a sign, other than a wall sign which projects from and is supported by a wall of a building or structure. Projecting Signs are differentiated from Wall Flat Signs as defined below.
  - Q. Roof Sign: A sign located on or above the roof of any building, not including a false mansard roof, canopy or other fascia.
  - R. Selling slogans: a brief striking phrase used in advertising or promotion. The hours of operation of a business shall be considered to be a selling slogan.
  - S. Sign Area: the display surface or face of the sign, including all frames, backing face plates, non-structured trim or other component parts not otherwise used for support. Where a sign is displayed on a surface that includes both signage and blank area, the Planning Director shall have the responsibility for calculating the sign area and shall include all of the surface generally bounding any lettering or other display.
  - T. Site Area, Net: The area of a development site, excepting all areas in public or private streets, driveways, and parking spaces.
  - U. Street Graphics: signs that indicate the name and function of a business or institution and are located on private property but within fifteen (15) feet of the right-of-way of a public street.
  - V. Temporary Sign: a banner, pennant, poster or advertising display constructed of paper, window paint, cloth, canvas, plastic sheet, cardboard, or other like materials intended to be displayed for a limited period of time.
  - W. Wall Flat Sign: a sign affixed directly to or painted on or otherwise inscribed on an exterior wall and confined within the limits of any building and which projects from that surface not more than twelve (12) inches at all points.
- 234. Significant Resource Impact Report (SRIR): See Section 4.139.00
  - 235. Significant Resource Overlay Zone (SROZ): See Section 4.139.00
  - 236. Site Development: Any human-caused change to improved or unimproved property -, including, but not limited to, land surface mining, grading, filling, excavation, tree cutting, clearing, construction, installation or alteration of a building or other structure, establishment or termination of an access or outdoor storage on the land.
  - 237. Solar access height limit: A series of contour line establishing the maximum permitted height for non-exempt vegetation on lots affected by a Solar Access Permit (see Figure 12: Solar Access Height Limit in Section 4.137).
  - 238. Solar access permit: A document issued by the city that describes the maximum height that non-exempt vegetation is allowed to grow on lots to which a solar access permit applies.

239. Solar feature: A device or combination of devices or elements that does or will use direct sunlight as a source of energy for such purposes as heating or cooling of a structure, heating or pumping of water, and generating electricity. Examples of a solar feature include a window or windows that contain(s) at least 20 square feet of glazing oriented within 45 degrees east and west of true south, a solar greenhouse, or a solar hot water heater. A solar feature may be used for purposes in addition to collecting solar energy, including but not limited to serving as a structural member or part of a roof, wall, or window. A south-facing wall without windows and without other features that use solar energy is not a solar feature for purposes of this Section.
240. Solar gain line: A line parallel to the northern property line(s) of the lot(s) south of and adjoining a given lot, including lots separated only by a street, that intersects the solar feature on that lot (see Figure 8: Solar Gain Line in Section 4.137).
241. Source Separated Recyclables: Recyclable materials designated “principle recyclable materials” by the Oregon Environmental Quality Commission under ORS 495A.025 with the exception of yard debris, as well as other source-separated recyclables that may be designated by local ordinance or regulation. (Amended by Ordinance #426 - April 4, 1994)
242. South or South facing: True south, or 20 degrees east of magnetic south.
243. Special Flood Hazard Area: Means an area having special flood, mudslide (i.e., mudflow), and/or flood-related erosion hazards, and shown on an FHBM or FIRM as zone A, AO, A1-30, AE, AR, A99, AH, VO, VI-30, VE, V, M, OR E.
244. Specific Area Plan (SAP): A plan with a series of detailed components covering one of the five distinct areas of the Villebois Village Master Plan. These plans provide a higher level of analysis and detail than the Villebois Village Master Plan.
245. Stacked Flats: Two or more single-level dwelling units, the second arranged above the first, etc.
246. **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 or within any lawful extension of the 180 day permit period provided for by the Oregon State Structural Specialty Codes. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.**
247. Stoop: A small uncovered platform or porch at the entrance to a dwelling, usually up several steps from the sidewalk.
248. Storage Area for Solid Waste or Recyclables: The space necessary to store mixed solid waste and source separated recyclables that accumulate between collection days. [Amended by Ordinance #426 - April 4, 1994]

249. Story: That portion of a building included between a floor and the ceiling next above it, exclusive of a basement.
250. Street: The entire right-of-way of a dedicated public way, which provides vehicular and pedestrian access to adjacent properties. It shall include the terms street, court, road, drive, and other such terms. Except in the Village zone, a right-of-way less than twenty (20) feet in width shall not be recognized as a street.
251. Street, Arterial: A street used primarily for through traffic.
252. Street, Collector: A street used to some extent for through traffic and to some extent for access to abutting properties.
253. Street, Frontage: A minor street parallel to and adjacent to a major street providing access to abutting properties and protection from through traffic.
254. Street, Half: A portion of the width of a street, usually along the edge of a development where the remaining portion of the street could be provided in another adjacent development. In the Village Zone, see Section 4.125(.09), Street Improvement Standards.
255. Street Tree Master Plan: A plan that denotes the species, spacing, minimum size and location of all street trees.
256. Street, Local: A street used exclusively for access to abutting properties.
257. Structure: Anything built which requires location on the ground or is attached to something having a location on the ground. ~~For purposes of the City's Flood Plain Development regulations, things located below grade are not considered to be structures, unless they are subterranean buildings, basements, or cellars.~~
258. Structured Parking: Enclosure for the storage of four or more vehicles.
259. Subdivide: To effect a subdivision of land, as defined below.
260. Subdivider: Any owner commencing proceedings under Sections 4.200 to 4.290 to effect a subdivision of land.
261. Subdivision: Either an act of subdividing land, or an area or tract of land subdivided as defined in this Code. A subdivision means the division of land into more than three (3) lots.
262. **Substantial Damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to it's before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.**
263. Substantial Development: Receipt of a valid public works permit or building permit for construction activities, other than a grading permit, is deemed to constitute "substantial development."
264. Substantial Improvement: Means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent (50 percent ) of the market value of the structure, as determined by the City's Building Official, either:
- A. Before the improvement or repair is started, or
  - B. 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 is not used in the same manner as the term “substantial development” and does not 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.

265. Sunchart: One or more photographs that plot the position of the sun between 10:30 am and 1:30 pm on January 21, prepared pursuant to guidelines issued by the Planning Director. The sunchart shall show the southern skyline through a transparent grid on which is imposed solar altitude for a 45-degree and 30-minute northern latitude in 10-degree increments and solar azimuth from true south in 15-degree increments.
266. Support Structure (Telecommunication): The structure to which wireless communication antennae and other necessary hardware are mounted. For purposes of this ordinance the terms “support structure,” “tower,” and “transmission tower” shall be interchangeable. Support structures include, but are not limited to:
- A. Guyed Tower: A tower which is supported, in whole or in part, but the use of cables (guy wires) and ground anchors.
  - B. Lattice tower: A freestanding support structure which consists of an open framework of crossed metal braces on three or four sides which stabilize the tower and which is built without guy wires and ground anchors.
  - C. Monopole: A freestanding support structure consisting of a single upright pole sunk into the ground and/or attached to a foundation and engineered to be self-supporting without guy wires or ground anchors.
267. Terrace: A raised space or platform adjoining a building, paved or planted, especially one used for leisure enjoyment.
268. Theater: A building or outdoor structure providing facilities for the presentation of performances.
269. Tower Footprint: The area described at the base of a transmission tower as the perimeter of the transmission tower including the transmission tower foundation and any attached or overhanging equipment, attachments or structural members but excluding ancillary facilities and guy wires and anchors. [Added by Ord. #479, 5/19/97]
270. Tower Height: The distance measured vertically from the highest point when positioned for operation to the lowest point, which is defined as the bottom of the base of the structure being measured at either roof level for a roof-mounted structure or at ground level for a freestanding structure. The height of a tower shall include the height of any antennae positioned for operation attached or which may be attached to the highest point on the tower. [Added by Ord. #479, 5/19/97]
271. Tower Pad: The area encompassing the tower footprint, ancillary facilities, fencing and screening. [Added by Ord. #479, 5/19/97]

272. Town Center: That part of the community that is generally bounded by, or adjoining, Town Center Loop Road.
273. Townhouse: A configuration of a Multiple Family Dwelling where multi-story units are attached in an unbroken row sharing common walls, and each having a separate entrance.
274. Trailers, Travel Trailers, Mobile Coaches: A vehicle or structure constructed for movement on the public highways, that has sleeping, cooking or plumbing facilities and is intended for temporary residential and/or recreational uses. Trailers, travel trailers, and mobile coaches do not meet the standards to be considered mobile homes or manufactured dwellings noted above.
275. Transit Stop: A designated location along or near a transit street for pick-up and drop-off of transit users.
276. Transit Station: A facility at a major transit stop accommodating multiple types of transportation, including the seating, sheltering, pick-up, and drop-off of transit users; bicycle storage; automobile drop-off lanes; and other uses compatible with transit use.
277. Transit Street: A designated transit route with one or more transit stops serving TRI-MET or South Metro Area Rapid Transit (SMART) riders.
278. Tree: Any living, standing woody plant having a trunk six inches or more d.b.h. at four and one-half (4-1/2) feet above grade.
279. Tree Cutting: The falling or removal of a tree, or any procedure the natural result of which is to cause the death or substantial destruction of a tree, including topping and severe cutting back of limbs to such a degree as to destroy or adversely affect the normal growth pattern of the tree. Cutting does not include routine pruning or trimming.
280. Tree Preservation and Protection Plan: A plan that indicates the locations of existing trees to be preserved and the methods to be employed to do so. See the City of Wilsonville Tree Preservation Code, Section 4.600 for additional information.
281. Tree Pruning: Reduction of a tree to achieve a better shape and more fruitful growth, using common practices of the arboriculture industry, including the International Society of Arboriculture, the Oregon Department of Forestry (Urban Forestry), or other professional arboriculture industry organizations.
282. Tree Survey: Information provided by an arborist which describes size, species, health, and condition, and an accurate map that locates the trees on the property and descriptive text. Tree surveys shall be provided in keeping with WC 4.610.30 and 4.610.40.
283. Tree Topping: The severe cutting of the top or limbs within the tree's crown to such a degree so as to remove the natural canopy or disfigure the tree.
284. TRP: Tree Removal Permit.
285. Undevelopable area: As used in the solar access provisions of this Code, an area than cannot be used practicably for a habitable structure, because of natural conditions, such as slopes exceeding 20% in a direction greater than 45 degrees east or west of true south, severe topographic relief, water bodies, or conditions that isolate one portion of

a property from another portion so that access is not practicable to the unbuildable portion; or man-made conditions, such as existing development which isolates a portion of the site and prevents its further development; setbacks or development restrictions that prohibit development of a given area of a lot by law or private agreement; or existence or absence of easements or access rights that prevent development of a given area.

286. Urban Growth Management Function Plan (UGMFP): Regulatory requirements imposed on local governments by Metro.
287. Use: The purpose for which land or a building is arranged, designed or intended, or for which either land or a building is or may be occupied.
288. Utilities: Any water, gas, sewer, storm drainage, electrical, telephone, or communication service and all persons, companies, and agencies supplying the same.
289. Value: Current market value or replacement cost as determined by a licensed or certified professional in the tree, nursery, or landscape field.
290. 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. A Variance does not allow a use that is prohibited by this Chapter.
291. View Corridor: As located and defined in the Master Plan, a view corridor is a panorama or line-of-site that, for aesthetic or cultural reasons, is to remain free of noncontributing elements.
292. Village Center: An area illustrated and described in the Villebois Village Master Plan, providing a mixture of residential and commercial uses, at the intersection of three neighborhoods. The Village Center is the focal point of civic and commercial activity.
293. Village Center Architectural Standards: A document that includes standards for all buildings within the Village Center. [Definition amended by Ord. No. 595, 12/5/05.]
294. Village Zone: The zoning district that is applied to areas designated Residential Village on the Wilsonville Comprehensive Plan Map. The Village zone implements the Residential-Village designation and the Villebois Village Master Plan. Also known as the V zone.
295. Villebois Village Master Plan: The approved document depicting the general organizational structure of the Villebois Village Concept Plan, implemented by the Residential-Village Comprehensive Plan designation, and the Village (V) zone, including but not limited to the form and location of public open spaces, types and alignment of the utilities and various thoroughfares, and land use types and locations.
296. Violation: The division or use of land or structures, or the construction of, addition to, or alteration of, structures in a manner that does not fully comply with the provisions of Chapter 4. Structures located in flood hazard areas without adequate elevation certificates or other satisfactory proof of compliance with the provisions of Section 4.172 will be presumed to be in violation until such time as the necessary information has been provided to the Community Development Director.

297. Wall: An upright construction having a length greater than the thickness and presenting a continuous surface except where pierced by doors, windows, etc., used for shelter, protection, or privacy.
298. Water-Dependent: A use or activity which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body for water-borne transportation, recreation, energy production or source of water.
299. Water-Related: Uses which are not directly dependent upon access to a water body, but which provide goods or services that are directly associated with water-dependent land or waterway use, and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Except as necessary for water-dependent or water-related uses or facilities, residences, parking lots, spoil and dump sites, roads and highways, restaurants, businesses, factories; and trailer parks are not generally considered dependent on or related to water location needs.
300. Wayfinding Plan: See Master Signage and Wayfinding Plan.
301. Wetlands: Existing wetlands include jurisdictional wetlands as determined by the Division of State Lands (DSL) and/or the US Army Corps of Engineers (COE). "Wetlands" are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Created wetlands are mitigation wetlands as defined by the Division of State Lands or US Army Corps of Engineers. For the purpose of this ordinance, wetlands shall not include these constructed facilities:
- A. stormwater treatment ponds or swales;
  - B. stormwater treatment wetlands;
  - C. detention ponds;
  - D. a 25-foot buffer adjacent to the wetland;
  - E. an off-stream recreational lake, lagoon, fire pond or reservoir; and
  - F. ditches that are not mapped within the Significant Resources Overlay Zone and are constructed solely for the purpose of draining roads, lots, and outfalls of storm drains.
302. Wildlife Habitat: A Goal 5 resource defined as an area upon which wildlife depend in order to meet their requirements for food, water, shelter and reproduction. Wildlife habitat in the *City of Wilsonville Natural Resource Inventory and Goal 5, Title 3, Endangered Species Act Compliance and Protection Plan* refers to upland, forested areas of at least one-acre size. Hazelnut orchards, small clumps of trees and areas with only a few scattered trees are not included as wildlife habitat.
303. Wireless Communication Facilities (WCF): An unstaffed facility for the transmission and reception of radio or microwave signals used for commercial communications. WCFs are composed of two or more of the following components: (1) antenna; (2) support structure; (3) equipment enclosures; and (4) security barrier. [Added by Ord. #479, 5/19/97]
304. Yard: The open space, other than a court, on a lot, unoccupied and unobstructed other than by landscaping or permitted fences from the ground upward, between a structure

or structures and any lot line. The minimum horizontal distance between any point on a lot line and the nearest part of any structure or building is the yard depth.

305. Yard, Front: Any yard abutting a street, unless one side is determined to meet the definition of a side yard, below.
306. Yard, Rear: Any yard abutting a rear lot line.
307. Yard, Side: Any yard abutting a side lot line and, for corner lots, the side with the longest street frontage. Where a corner lot has an existing building with a primary entrance, the street side without the entrance shall be deemed the side yard. Where a corner lot has the same amount of frontage on both streets, and no primary building entrance facing either street, the Planning Director may designate the side yard in order to determine required setbacks.

[Definitions amended by Ord. 557 adopted 9/5/03]

**Section 2.** Wilsonville Code Section 4.172 is amended to read as follows:

**Section 4.172. Flood Plain Regulations.**

(.01) Purpose:

- A. To minimize public and private losses due to flood conditions in flood-prone areas.
- B. To regulate uses and alteration of land which would otherwise cause erosion, decreased storm water storage capability, increased flood heights or velocities.
- C. To require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction, alteration or remodeling.
- D. To restrict filling, grading, dredging, and other development which would increase flood damage.
- E. To prevent construction of flood barriers which would unnaturally divert flood waters or increase flood hazards in other areas.
- F. To properly regulate the 100-year flood plain identified by the Federal Insurance Administration (FIA) in the "Flood Insurance Study for **Clackamas County and Incorporated Areas the City of Wilsonville**" dated **effective June 17, 2008** ~~July 6, 1981~~, and displayed on FIA Floodway and Flood Insurance Rate Maps **dated effective June 17, 2008, which are on file with the City's Community Development Department.**
- G. To implement the policies of the Comprehensive Plan and to provide standards consistent with - Wilsonville's adopted Storm Drainage Master Plan.
- H. To insure the City and its residents and businesses, continued eligibility in the National Flood Insurance Program by complying with the requirements of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

(.02) General Provisions Affecting Flood Plains:

- A. This section shall apply to all flood plain areas in the City of Wilsonville identified by the Flood Insurance Rate Map. No Building Permits or Construction Permits for development within the flood plain shall be issued except in compliance with the provisions of the Section.

**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 "Flood Insurance Study - Clackamas County, Oregon and Incorporated Areas effective June 17, 2008," with accompanying Flood Insurance Rate Maps (effective date June 17, 2008) is hereby adopted by reference and declared part of this ordinance. The Flood Insurance Study is on file at the City of Wilsonville Community Development Department.**

- B C. The City of Wilsonville Community Development Director shall review all Building and Grading Permit applications for new construction or substantial improvement to determine whether proposed building or grading sites will be located in a flood plain. If a proposed building or grading site is located within a flood plain, any proposed new construction, grading, or substantial improvement (including prefabricated and manufactured housing) must:
1. Be designed (or modified) and anchored to prevent flotation, collapse or lateral movement of the structure.
  2. Use construction materials and utility equipment that are resistant to flood damage,
  3. Use construction methods and practices that will minimize flood damage, and
  4. Limit the addition of any fill material such that the total volume of fill within the flood plain does not exceed the volume of material removed from the flood plain in the same area.
- € D. That the City of Wilsonville Planning Director shall review subdivision proposals and other proposed new developments within the flood plain to assure that:
1. all such proposals are consistent with the need to minimize flood damage,
  2. all public utilities and facilities, such as sewer, gas, electrical and water systems are located, elevated and constructed to minimize or eliminate flood damage,
  3. adequate drainage is provided so as to reduce exposure to flood hazards, and
  4. No new lots or parcels shall be created for the purpose of increasing the development of buildings for human occupancy within the flood plain.
- ∅ E. That the City of Wilsonville Community Development Director shall require new or replacement water supply systems and/or sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and require on-site waste disposal

systems to be located so as to avoid impairment of them or contamination from them during flooding.

(.03) Development Permit Required:

- A. A Development Permit shall be obtained before construction or development, including grading, begins within any area of special flood hazard. The Permit shall be for all structures including manufactured homes and for all development including fill and other activities.
- B. Outright Permitted Uses in the 100-year Flood Plain:
  - 1. Agricultural use that is conducted without a structure other than a boundary fence.
  - 2. Recreational uses which would require only minor structures such as picnic tables and barbecues.
  - 3. Residential uses that do not contain buildings.
  - 4. Underground utility facilities.
  - 5. Repair, reconstruction or improvement of an existing structure, the cost of which is less than 50 percent of the market value of the structure, as determined by the City's Building Official, prior to the improvement or the damage requiring reconstruction, provided no development occurs in the floodway.

(.04) Uses within the 100-year Flood Plain requiring a Flood Plain Permit:

- A. Any development except as specified in subsection (.03), above, that is otherwise permitted within the Zoning District provided such development is consistent with the Flood Plain Standards.
- B. All subdivisions and land partitions.
- C. Installation of dikes to provide buildable or usable property, provided that said dikes do not conflict with the policies of the Comprehensive Plan and this Section.

(.05) Prohibited Uses in the 100-year Flood Plain:

- A. Any use or building which stores or otherwise maintains hazardous materials, chemicals, explosives or any other similar materials.
- B. Storage of any materials that are not properly anchored, enclosed or protected to prevent movement or flotation beyond the property lines.

**C. Critical Facility:**

**Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet or to the height of the 500-year flood, whichever is higher. Access to and from**

**the critical facility should also be protected to the height utilized above. Flood-proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.**

(.06) Flood Plain Permit Review Process:

- A. The Community Development Director is **the local flood plain administrator and is** hereby appointed to administer and implement this Section by granting or denying Development Permit applications in accordance with its provisions.
- B. Duties and Responsibilities of the Community Development Director:
  1. Duties of the Community Development Director shall include, but not be limited to:
    - a. Review all Development Permits to determine that the permit requirements 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 government agencies from which prior approval is required. Notify the State Department of Land Conservation and Development and FEMA of final permit decision.
    - 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 limitations of subsection (.07)(H) are met.
- C. The Permit process for developments not regulated by Section 4.140 shall be as follows:
  1. Pre-application conference with the Planning Department in accordance with the procedures set forth in **Section 4.008**.
  2. A complete application in accordance with this Section shall be submitted to the Community Development Director.
  3. Within 30 days of complete application, the Community Development Director shall approve or deny the application based on the following Findings:
    - a. Reports from the City Engineer and Planning Director as to the applicant's submittal documents' compliance with this Section, including recommendations.
    - b. The proposed development's compliance with other provisions of the Comprehensive Plan and Zoning Regulations.
- D. The decision of the Community Development Director may be appealed to the Development Review Board, upon written notice to the City Recorder within ten (10) calendar days of the date of final decision. Upon appeal, the Board shall hear the matter in accordance with **Section 4.022**

- E. Any flood plain development proposed for property regulated under Section 4.140 shall be considered by the Development Review Board and the Community Development Director as part of the Planned Development Permit process.
- F. Submittal requirements.
1. A field survey in relation to mean sea level by a licensed surveyor or civil engineer of the actual location of the 100-year flood plain, fringe, floodway and the lowest habitable finished floor elevations, including basements, of all existing structures.
  2. A Site Plan map showing all existing and proposed contours and development and supplemented by a soils and hydrologic report sufficient to determine the net effect of the proposed development on the flood plain elevations on the subject site and adjacent properties. Proposed areas of cut or fill shall be clearly indicated.
  3. A soils stabilization plan for all cuts, fills and graded areas.
- G. Use and Interpretation of Base Flood Data and maps.
1. When specific 100-year flood plain elevation data has not been provided in as required in this Section, the Community Development Director shall obtain, review and reasonably utilize any base flood elevation data available from Federal, State or other sources, in order to determine compliance with this Section.
  2. The Community Development Director shall make the final interpretation of the exact 100-year flood plain boundaries on the FIRM and the Floodway Map. Appeals shall be granted consistent with the Standards of the rules and regulations of the National Flood Insurance Program **and pursuant to WC 4.172 (.08) Appeal Board.**
- H. Monumentation and Recordation:
1. Prior to issuance of a Flood Plain Permit, the Community Development Director shall cause the placement of an elevation marker, set at two (2) feet above the 100-year flood elevation, on the subject property. The marker shall be properly identified and permanently monumented in concrete.
  2. A Site Plan or map showing the location and elevation of the monument shall be submitted to and maintained on file by the Community Development Director.
  3. Prior to issuance of an Occupancy Permit, for any structure within the 100-year flood plain, the Community Development Director shall insure by signature of a licensed surveyor or civil engineer (**elevation certificate**) that the finished floor elevation of **commercial, industrial and public buildings are is one and one-half (1-1/2) feet above the 100-year flood elevation and that residential uses are two (2) feet above the 100-year flood elevation.** The finished floor elevation shall be in relation to mean sea level, of the lowest floor (including basement) of all structures.

(.07) General Standards:

A. Anchoring:

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
2. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top of frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
3. All recreational vehicles must either be elevated and anchored or be on the site for less than 180 consecutive days ~~or and~~ be fully licensed and highway ready. A recreational vehicle is ready for highway use if its wheels are in place and it is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

B. Construction materials and methods:

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

4. **Below-grade crawl spaces:**

**a. 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*:**

**i. 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.**

**ii. 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.

iii. 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.

iv. 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.

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

vi. 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.

vii. 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.

viii. 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.

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

C. Utilities:

1. All new replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.
3. **On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.**

D. Alteration of Watercourses:

1. Provide description of the extent to which a watercourse will be altered or relocated as a result of proposed development.
2. Notify adjacent communities and the Federal Emergency Management Agency, Army Corps of Engineers, **Department of Land Conservation and Development** and **Department** ~~Division~~ of State Lands prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
3. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.  
(Amended by Ord. #316, 7/6/87).

E. Residential Construction:

1. New construction and substantial improvement of any residential structure shall have the lowest finished floor, including basement, elevated **two (2) one and one half (1-1/2)** feet above the 100-year flood elevation.
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following 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.
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
3. Manufactured homes or mobile homes placed on sites within new or existing manufactured/mobile home parks shall be anchored to a permanent foundation and ~~either~~:
  - a. Have the lowest floor 2' above the base flood elevation, or
  - b. ~~Have the chassis supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty six (36) inches above grade.~~
4. Manufactured/mobile homes outside of manufactured/mobile home parks shall meet all requirements for residential structures at the same locations.

5. All manufactured homes to be placed or substantially improved within Flood Hazard Zones AI-30, AH or 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 sub-section 4.172(.07)(A).

F. Nonresidential Construction:

1. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest finished floor, including basement, elevated one and one-half (1-1/2) feet above the 100-year flood elevation; or, together with attendant utility and sanitary facilities, shall:
  - a. Be floodproofed so that below the base flood level the structure is water-tight 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 standards of this subsection are satisfied. **Floodproofing certifications are required to be provided to the Community Development Director.**
  - d. Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as prescribed for residential construction, above.
  - e. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).

H. Floodways:

1. Located **within** the flood plain - 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. Encroachments, including fill in any new development, or **substantial improvements** shall be prohibited unless certification by a registered professional engineer is provided, demonstrating that encroachments shall not result in any increase flood levels during the occurrence of the 100-year flood discharge.
  - b. All development shall comply with all applicable flood plain standards of Section 4.172.
  - c. All buildings designed for human habitation and/or occupancy shall be prohibited within the floodway.

I. Parking Lots and Storage Areas:

1. All parking lots and storage areas below the flood plain elevation shall be paved.

2. A minimum of twenty-five (25) percent of the required parking space must be provided above the 100-year flood plain elevation for all nonresidential uses.
3. Residential uses shall provide at least one parking space per unit above the 100-year flood plain elevation.

J. Subdivision Proposals:

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

- K. 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, 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.

(.08) Appeal Board.

- A. The Development Review Board as established by the City of Wilsonville shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- B. The Development Review Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the Community Development Director in the enforcement or administration of this ordinance.
- C. Those aggrieved by the decision of the Development Review Board may appeal such decision to the City Council.
- D. In acting upon such applications, the Development Review Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and
  1. the danger that materials may be swept onto other lands to the injury of others;
  2. the danger to life an property due to flooding or erosion damage;
  3. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. the importance of the services provided by the proposed facility to the community;
  5. the necessity to the facility of a waterfront location, where applicable;
  6. the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  7. the compatibility of the proposed use with existing and anticipated development;
  8. the relationship of the proposed use to the Comprehensive Plan and flood plain management program for that area;
  9. the safety of access to the property in times of flood for ordinary and emergency vehicles;
  10. the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
  11. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas electrical and water systems, and streets and bridges.
- E. Upon consideration of the factors of Sections 4.035, 4.184, and 4.196 and the purposes of this ordinance, the Development Review Board may attach such conditions to the granting of - permits as it deems necessary to further the purposes of this ordinance and to protect lives or property.
- F. The Community Development Director shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.
- (.09) Conflicts. If any provisions of Section 4.172 conflict with any other Sections of this Code, the most restrictive shall apply.

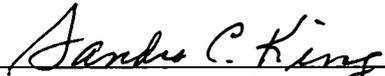
**Section 3.** Severability. In the event any provisions of this Ordinance shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

SUBMITTED to the Wilsonville City Council and read for the first time at a regular meeting thereof on the 7<sup>th</sup> day of April, 2008, and scheduled for second reading on the 21<sup>st</sup> day of April, 2008, commencing at the hour of 7:00 p.m. at the Wilsonville City Hall.

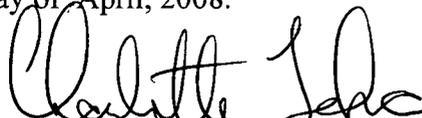
  
 Sandra C. King, MMC, City Recorder

ENACTED by the City Council on the 21st day of April, 2008, by the following votes:

YEAS:-4- NAYS: -0-

  
\_\_\_\_\_  
Sandra C. King, MMC, City Recorder

DATED and signed by the Mayor this 23<sup>rd</sup> day of April, 2008.

  
\_\_\_\_\_  
CHARLOTTE LEHAN, MAYOR

SUMMARY OF VOTES:

Mayor Lehan	Yes
Councilor Kirk	Yes
Councilor Núñez	Excused
Councilor Knapp	Yes
Councilor Ripple	Yes

**WILSONVILLE PLANNING DIVISION**  
***Legislative* STAFF REPORT**

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**HEARING DATE:** March 31, 2008

**DATE OF REPORT:** April 7, 2008

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**APPLICATION NO:** LP08-0002

**APPLICANT:** City of Wilsonville

**REQUEST:** Adoption of the Federal Emergency Management Agency's (FEMA) revised Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRM), as well as amendments to the existing flood plain management regulations (WC Section 4.172) as required by FEMA and the Department of Land Conservation and Development (DLCD) that meet the standards of Paragraph 60.3(d) of the National Flood Insurance Program (NFIP). Adoption of the maps and new code language are required for the City to remain in the National Flood Insurance Program.

**APPLICABLE REVIEW CRITERIA:** Wilsonville Comprehensive Plan: Goal 1.1- Citizen Involvement: Policy 1.1.1; Implementation Measures 1.1.1a and e; Public Facilities and Services: Policy 3.1.7; Implementation Measure 3.1.7 a, d, k, l, m; Environmental Resources and Community Design: Policy 4.1.5; Implementation Measure 4.1.5 e, f, n, t, w, z; Planning and Land Development Ordinance: Section: 4.172: Flood Plain Regulations; 4.198: Zone Changes and Amendments to this Code-Procedures; FEMA's National Flood Insurance Program.

**STAFF REVIEWER:** Chris Neamtzu, Long-Range Planning Manager, (503) 682-4960  
[neamtzu@ci.wilsonville.or.us](mailto:neamtzu@ci.wilsonville.or.us).

**LOCATION:** Mapped 100-Year Floodplains citywide (Please refer to Exhibit B-June 17, 2008 FIRM)

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**SUMMARY:**

Following a work session on February 13, 2008 and a public hearing on March 12, 2008 the Planning Commission forwarded a recommendation of approval of the adoption of new Flood Insurance Rate Maps (FIRM), the supporting Flood Insurance Study (FIS) and amendments to WC Section 4.172-Flood Plain Regulations onto the City Council. There was no written or oral testimony at the public hearing; one citizen was in attendance. Since the Planning Commission public hearing, there have been numerous discussions with consultants representing various

development projects in the City. Staff has been working diligently with citizens and the development community to address all concerns raised and to date staff is not aware of any outstanding issues.

Over the course of 2006-07', FEMA undertook an update to the 100-year flood plain maps for Clackamas County and incorporated areas. Washington County is just undergoing this process. This process is commonly referred to as a map modernization process. The City of Wilsonville is a participating community in the National Flood Insurance Program (NFIP), and administers flood plain regulations through the Development Code (WC Section 4.172). The National Flood Insurance Program was established with the passage of the National Flood Insurance Act of 1968. As a participating community in the National Flood Insurance Program, and to remain in good standing, the City is required to adopt the revised Flood Insurance Rate Maps (FIRM-Exhibit B), Flood Insurance Study (FIS-Exhibit G), and revise the local flood plain regulations to comply with Federal Regulations.

On December 14, 2007, Chief of the Engineering Management Branch at FEMA, William R. Blanton provided a letter to Mayor Lehan (Exhibit A) formally notifying the City that the flood hazard determinations had been finalized. The currently adopted floodplain maps date back to 1987. FEMA recently completed a re-evaluation of flood hazards in Clackamas County and incorporated areas. Draft flood plain maps were provided to the City in September of 2007. City Staff raised concerns about the accuracy of the draft maps and filed a formal protest. As a result of the protest, FEMA used the City's more accurate digital topography and incorporated a pending Conditional Letter of Map Refinement (CLOMR) that is now a Letter of Map Refinement (LOMR) for the Seely Ditch/Wilsonville Road culvert project and re-ran the analysis resulting in modifications to the base flood elevations in the City. The end results are the draft FIRM maps that are presented for final adoption. City staff believes that the revised maps more accurately represent the base flood elevations in the City of Wilsonville, which was the staff's goal in raising concerns and protesting the draft maps.

In order for the City to continue to obtain eligibility in the NFIP, FEMA's FIS and FIRM need to be adopted by the City, including public hearings and final adoption with the City Council prior June 17, 2008. Communities that fail to enact the necessary flood plain management regulations will be suspended in the NFIP and subject to the prohibitions contained in Section 202(a) of the Flood Disaster Protection Act of 1973, as amended.

In order to comply, the City is required to update Wilsonville Code (WC) *Section 4.172: Flood Plain Regulations* (Exhibit C) to comply with Section 1361 of the National Flood Insurance Act of 1968. To remain eligible the City must demonstrate compliance with the standards of 44 CFR Section 60.3(d) of the NFIP regulations, as audited by the DLCDC (Exhibit D).

In addition to the City using the FIS and FIRM to manage development in the flood plain, FEMA will use the FIS report to establish appropriate flood insurance rates. On the effective date, actuarial rates for flood insurance will be charged for all new structures and substantial improvements to existing structures located in the identified Special Flood Hazard Areas (SFHA). These rates may be higher if structures are not built in compliance with the flood plain management standards of the NFIP. The actuarial flood insurance rates increase as the lowest

elevations (including basements) of new structures decrease in relation to the Base Flood Elevation (BFE) established for the community. This is an important consideration for new development because building at a higher elevation can greatly reduce the cost of flood insurance.

Couple this point with the fact that the 1996 flood, which in many parts of the Willamette Valley was considered a 100-year event, resulted in different peak flood elevations than are depicted in the 1987 FIRM maps. In order to adequately protect the public from the likelihood of flood damage, Staff is recommending an increase in height above the 100-year floodplain from the current 1.5' to 2' for new residential structures, or structures that undergo a substantial improvement as defined by the WC. Commercial, industrial and public facilities will continue to have a 1.5' requirement. **This is the only policy decision that is outside of the required code changes mandated by FEMA.**

### **Community Rating System:**

Upon adoption of the new Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRM), staff will begin the process of obtaining an official Community Rating System (CRS) from FEMA. The CRS program will benefit the City by adjusting the flood insurance premium rates for property owners located in the flood hazard zones and are paying for flood insurance. The goals to achieve the adjusted insurance rates will be: reduce flood losses; facilitate accurate insurance rates; and promote the awareness of flood insurance.

By adopting the (CRS) program, our goal will be to reduce the flood insurance rates between 15% and 45% depending on the rating score.

### **ISSUES:**

FEMA/DLCD provided detailed comments to the City on the revisions that were necessary to the flood plain regulations to result in compliance with Federal standards (Exhibit D). Most of these comments are required revisions. The major revisions include:

- 1) Addition of new definitions that are contained in the Code of Federal Regulations (CFR) and the FEMA model code that are not in the local regulations.
- 2) Updates to the *Purpose* section of the flood plain regulations to reference the new maps and study.
- 3) Addition of language specifically to address the process of certifying that development complies with the regulations – called an elevation certificate.
- 4) Addition of DLCD as a required party to be noticed of flood plain alterations.
- 5) Cross reference the appeals process outlined in the City code.
- 6) Minor word additions to the utilities section and the subdivision section.
- 7) Addition of language to the non-residential structures section requiring submission of flood proofing certifications to the Community Development Director.
- 8) Modifications to the residential structures section to comply with the FEMA model code requiring manufactured homes and mobile homes to be at least 1' above BFE.

Consistent with other residential development, Staff is recommending that this elevation be 2'.

- 9) Prohibitions on substantial improvements in the floodway, unless certified by a registered civil engineer.
- 10) Addition of language that addresses critical facilities within the SFHA.
- 11) Addition of language that clearly states that the Community Development Director is the local flood plain administrator.
- 12) Addition of specific language that addresses below grade crawl spaces and comply with NFIP specifications.
- 13) Proposed addition in finished floor elevation for residential structures, mobile and manufactured homes to 2' above BFE.

**Project Acronyms:**

BFE:	Base Flood Elevation
CFR:	Code of Federal Regulations
CLOMR:	Conditional Letter of Map Revision
DLCD:	Department of Land Conservation and Development
FEMA:	Federal Emergency Management Agency
FIRM:	Flood Insurance Rate Maps
FIS:	Flood Insurance Study
LOMC:	Letter of Map Change
LOMR:	Letter of Map Revision
NFIP:	National Flood Insurance Program
SFHA:	Special Flood Hazard Area

**RECOMMENDATION:**

As this is a very time sensitive topic, a final action is needed by the City Council before June 18, 2008. If the study and maps are not adopted by June 17, 2008, Wilsonville risks suspension from the NFIP. Staff is requesting that the City Council take the following action:

- Adopt the City of Wilsonville FIRM's (Panel Nos. 234, 241, 242, 250, 261 of 1175- Effective date June 17, 2008) and the FIS as a supporting document.
- Adopt the revised text in *WC 4.172: Flood Plain Regulations* (Exhibit C) to support the FIS and FIRM consistent with FEMA requirements.

**BACKGROUND:**

Staff received the draft FIS and FIRM from FEMA in September of 2007. After following the filing of a formal protest, the maps were redrawn for the incorporated part of the City of Wilsonville. Prior to receiving the maps, Staff received an audit of the existing flood plain regulations (WC 4.172) clearly specifying what changes needed to be completed in order to

result in continued participation with the NFIP. The revised code language is contained in the packet as Exhibit C and the audit is included as Exhibit D.

Staff conducted a worksession on this topic with the Planning Commission on February 13, 2008. Notice of public hearing was provided to all owners of property containing mapped 100-year floodplains consistent with the updated maps, as well as a 50' buffer around the mapped 100-year boundary.

#### **CONCLUSIONARY FINDING(S):**

*GOAL 1.1 To encourage and provide means for interested parties to be involved in land use planning processes, on individual cases and City-wide programs and policies.*

**Policy 1.1.1 The City of Wilsonville shall provide opportunities for a wide range of public involvement in City planning programs and processes.**

***Response: The public hearing notice was sent to all property owners who have flood plains mapped on their land plus a 50 buffer. These are the affected parties regarding changes to the floodplain maps and revisions to the regulations. A Planning Commission worksession was held in February on this topic. Public hearings were held in March with the Commission, and work sessions and hearings with the Council are planned for April. Adoption has to occur prior to June 18, 2008. These criteria are supported by the public process and notices that have been provided.***

*Implementation Measure 1.1.1.a Provide for early public involvement to address neighborhood or community concerns regarding Comprehensive Plan and Development Code changes. Whenever practical to do so, City staff will provide information for public review while it is still in "draft" form, thereby allowing for community involvement before decisions have been made.*

**Response:** There has been a relatively short timeframe for compliance on this matter. The schedule is being set by FEMA. Once the final maps were provided, Staff initiated the review process with the public. The Staff has met numerous times with State DLCD Flood Plain Administrators, as well as conducted conference calls with FEMA Staff in Region X. The draft maps have been posted on the City web site, and Staff has spoken to numerous individuals who have called with specific questions. This criterion is supported by the process that is being conducted.

*Implementation Measure 1.1.1.e Encourage the participation of individuals who meet any of the following criteria:*

- 1. They reside within the City of Wilsonville.*

2. *They are employers or employees within the City of Wilsonville.*
3. *They own real property within the City of Wilsonville.*
4. **They reside or own property within the City's planning area or Urban Growth Boundary adjacent to Wilsonville.**

***Response:*** *Public hearing notices were provided to residents and employers who have mapped 100-year flood plains on their land plus buffers. The notice encourages their participation. This criterion is met.*

*Policy 3.1.7 The City of Wilsonville shall develop and maintain an adequate storm drainage system. However, where the need for new facilities is the result of new development, the financial burden for drainage system improvements shall remain primarily the responsibility of developers. The City will use systems development charges, user fees, and/or other funding sources to construct facilities to improve storm water quality and control the volume of runoff.*

***Response:*** *The City develops and maintains the public storm drainage system. Without adequate storm drainage, detention and water quality system, the likelihood of flooding would increase. The Storm Water Master Plan (2001) and the Public Works Standards are the guiding documents regarding storm water management. This criterion is met.*

*Implementation Measure 3.1.7.a In order to adequately provide for urban development, the City has established and will maintain a Stormwater Master Plan, development policies/standards for control of an on and off-site drainage, Public Works Standards, and a Capital Improvements Program to upgrade deficient structures and drainage ways.*

***Response:*** *The City's Storm Water Master Plan, Public Works Standards, and CIP which provide facilities to manage stormwater, all work together to detain and treat storm water and meter flows downstream at a pace that will not result in increased flooding and potential property damage. This criterion is generally supported by the proposal.*

*Implementation Measure 3.1.7.d Major natural drainage ways shall be retained and improved as the backbone of the drainage system and designated as open space. The integrity of these drainage ways shall be maintained as development occurs. Where possible, on-site drainage systems will be designed to complement natural drainage ways and designated open space to create an attractive appearance and will be protected by conservation, utility, or inundation easements. Alteration of minor drainage ways may be allowed provided that such alterations do not adversely impact stream flows and in-stream water quality of the major drainage ways and provide for more efficient use of the land. Such alteration must be approved by the City. Remnant creek channels, which previously carried water that has since been diverted, shall be evaluated for their wildlife habitat value before being selected for use as drainage ways. Where a remnant creek channel is found to provide unique habitat value without being a riparian zone, and that habitat*

*value would actually be diminished through the re-introduction of storm water, alternate methods of conveying the storm water will be considered and, if feasible, used.*

Response: Many of the City's major drainage ways are flood plain areas as well as sensitive wetlands and wildlife habitats. The proposed code amendments contain provisions for the alteration of flood plains and notification to the proper State and Federal agencies. This criterion is generally supported by the proposal.

*Implementation Measure 3.1.7.k One-hundred year flood plains and floodways have been established through the Federal Flood Insurance program, for all flood-prone areas of the City except Coffee Lake Creek, north of Barber Street. For that area along Coffee Lake Creek, a hydrology study to establish the 100-year flood elevation will be required prior to development approval. The floodways must continue to be protected from encroachment. Development within the flood plain shall be regulated consistent with the standards of the Federal Flood Insurance Act, and Title 3 of Metro's Urban Growth Management Functional Plan. Storm water runoff from upstream development shall be controlled so as to not adversely impact the peak flood flow in the mainstream channels.*

Response: The revised FIRM's contain limited mapping for the area of Coffee Creek (Panel 241D) north of Barber and is an area beyond the detailed study. The revised maps show that area as Zone A – No base flood elevations established. The Boeckman Road extension project contained a detailed flood plain and hydrology study, which at this time is in the form of a Conditional Letter of Map Revision (CLOMR). The CLOMR boundaries are shown on Exhibit K. Once as-builts for Boeckman Road are created and submitted to FEMA for review, the CLOMR can be made a Letter of Map Revision (LOMR), and BFE's established and new flood plain boundaries drawn for the area south and north of Boeckman to Grahams Ferry Rd. The flood way will continue to be protected from development and encroachment. The proposed amendments to WC 4.172 are consistent with the FIA, and Metro's Title 3 of the UGMFP. This criterion is met.

*Implementation Measure 3.1.7.l The City will regulate new land divisions to prevent the creation of additional lots for building sites within 100-year floodplains. This is not intended to prohibit the creation of new lots that are partially within flood plains, provided that the developable portion of each lot will be outside of the 100-year flood plain, and FEMA standards are met.*

Response: The proposed revisions to the flood plain ordinance will not alter the City's role in limiting the creation of new lots wholly within the 100-year flood plain. Proposed lots that have buildable areas outside of the 100-year boundary would continue to not be prohibited, provided FEMA standards are met.

**Implementation Measure 3.1.7.m The City will regulate cuts and fills within flood plains to assure that the amount of fill material added will not exceed the amount of cut material.**

Response: This criterion is supported by the language in the WC that requires balanced cut and fill (WC 4.172 (.02) C. 4.).

*Policy 4.1.5 Protect valuable resource lands from incompatible development and protect people and property from natural hazards.*

Response: By limiting flood plain development, restricting conflicting uses from the floodway and by providing updated language in the WC to guide flood plain development, and increasing the height of the finished floor elevation from 1.5' to 2' in new residential development, the City will protect valuable resource lands and will protect people and property from natural hazards such as flooding. This criterion is met.

*Implementation Measure 4.1.5.e Protect the beneficial uses and functional values of resources within the Water Quality and Flood Management Areas identified by Metro by limiting or mitigating the impact on these areas from development activities.*

Response: Via the City's adopted SROZ regulations, the beneficial uses and functional values of resources within the water quality and flood management areas are protected by limiting development activities. The proposed modifications to the flood plain ordinance do not alter the SROZ requirements. This criterion is met.

*Implementation Measure 4.1.5.f Ensure protection of Water Quality and Flood Management Areas pursuant to Title 3 of the Metro Urban Growth Management Functional Plan by either:*

1. *Adopting the relevant provisions of the Metro Water Quality and Flood Management model ordinance and Metro Water Quality and Flood Management Conservation Area Map; or*
2. *Demonstrating that the City's plans and implementing ordinances substantially comply with the performance standards, including the map, contained in Title 3. In this case, the purpose of this map is to provide a performance standard for evaluation of substantial compliance for the City; or*
3. *Any combination of 1 and 2 above that substantially complies with all performance standards in Section 4 of Title 3 of Metro's Urban Growth Management Functional Plan.*

Response: The City's adopted Goal 5 program resulted in substantial compliance with the requirements of Metro's Title 3. Many floodplains are protected from development via the SROZ regulations, resulting in protection of the water quality and flood

management areas. The proposal will not alter the SROZ requirements as they are more restrictive. These criteria are satisfied.

*Implementation Measure 4.1.5.n Adopt performance standards, in accordance with Metro, to conserve, preserve, protect, and enhance fish and wildlife habitat within the fish and wildlife habitat conservation areas identified on Metro's water quality and flood management area map.*

Response: The City's adopted and acknowledged Goal 5 program has resulted in compliance with the above implementation measure. Many of the SROZ areas are also flood plains. This measure does not conflict with the proposal.

*Implementation Measure 4.1.5.t Define risks of development by using Federal Emergency Management Agency maps showing flood plains and floodways. Restrict buildings in the flood plains and prohibit buildings in the floodway.*

Response: The City of Wilsonville is fortunate to have very little development in the 100-year flood plain, and staff is not aware of any development in the flood way. FEMA's FIRM maps are used regularly as a tool to inform the public and guide development. Through this process, risks are defined, and rules and regulations restricting activities communicated. This criterion is met.

*Implementation Measure 4.1.5.w Provide available information, when requested, to those interested in developing land in areas of the following hazards:*

- a. 100 year floods;
- b. slides and earthquake damage; or
- c. wind damage, possible tree topping.

Response: City Staff routinely provide a wide array of information to the public interested in developing land in Wilsonville. The 1987 flood plain maps have been on file at City Hall since their adoption. The draft FIRM maps have been posted on the City's web site for citizens to review at their own pace. Paper copies are available for anyone who requests them. The proposal does not alter the City's ability to provide information in a timely and accurate manner. This criterion is met.

*Implementation Measure 4.1.5.z Protected natural resources within the Significant Resource Overlay Zone are intended to remain undeveloped with the possible exceptions of passive recreation and underground public facilities. These areas include the following:*

1. Riparian corridors, wetlands and wildlife habitat that are determined to be significant through the Goal 5 process and are included in the Significant Resource Overlay Zone.

2. *Water quality resource areas as defined by Metro's Title 3 of the Urban Growth Management Functional Plan.*

Response: The SROZ and the flood plain areas overlap in many areas. Both sets of requirements need to be consulted before any land use decisions can be made. The more restrictive standards apply. Modifications to the flood plain ordinance and adoption of the 100-year flood plain maps will not allow activities that are not permitted in the SROZ. The proposal does not conflict with the above implementation measure.

**Planning and Land Development Code, Section 4.197, Zone Changes and Amendments to This Code:**

*(.01) The following procedure shall be followed in applying for an amendment to the text of this Chapter:*

*A. The Planning Commission shall conduct a public hearing on the proposed amendment at its earliest practicable meeting after it is proposed and shall, within forty (40) days after concluding the hearing, provide a report and recommendation to the City Council regarding the proposed amendment. The findings and recommendations of the Commission shall be adopted by resolution and shall be signed by the Chair of the Commission.*

Response: This is a City initiated Planning and Land Development Ordinance text amendment to Section 4.172-Flood Plain Regulations that is required by FEMA and DLCD as part of compliance with the NFIP. The map adoption and code revision process is moving forward to hearing in an expeditious manner following the customary worksession before the Planning Commission in February 2008 and public hearing in March of 2008. The Council hearing dates are targeted for April 7 and 21 of 2008. This criterion is met.

*B. In recommending approval of a proposed text amendment, the Planning Commission shall, at a minimum, adopt findings relative to the following:*

*1. That the application was submitted in compliance with the procedures set forth in Section 4.008; and*

*2. The amendment substantially complies with all applicable goals, policies and objectives set forth in the Comprehensive Plan; and*

*3. The amendment does not materially conflict with, nor endanger, other provisions of the text of the Code; and*

*4. If applicable, the amendment is necessary to insure that the City's Land Use and Development Ordinance complies with mandated requirements of State or Federal laws and/or statutes.*

Response:

2. The adoption of the FIRM/FIS, and amendments to WC 4.172, are being initiated by city staff, as authorized by the City Manager, at the direction of FEMA/DLCD and are necessary to remain in the NFIP. The City is the applicant for this proposal. The Planning Commission will recommend approval, approval with modifications or denial of this application to the City Council after concluding a public hearing. Public hearing notices were sent as required to all directly affected property owners, as well as to property owners within 50 feet of the mapped 100-year flood plain boundary. All of the customary agencies were notified of the city's proposal. The list of property owners and agencies notified are contained in the project file. Notice was published in the Wilsonville Spokesman as required. Findings of fact are included in the staff report.
3. The Findings found earlier in this report demonstrate substantial compliance with applicable goals, policies and objectives set forth in the Comprehensive Plan.
4. The proposed map adoption and code amendments do not conflict with other portions of the Development Code, but instead strengthen the Code by adhering to the recommendations provided by FEMA/DLCD and the requirements necessary to have good standing in the NFIP.
5. In an email to Chris Neamtzu dated 2/22/08, Mark Darienzo, DLCD Flood Map Modernization Coordinator (Exhibit G) generally stated that the proposed code amendments were reviewed and are consistent with the requirements. The proposed amendments comply with mandated State and Federal requirements.

**EXHIBITS**

- A. Letter from William Blanton to Mayor Lehan dated December 17, 2008; Final Summary of Map Actions; NFIP Elevation Certificate and Instructions; and FEMA NFIP Regulations.
- B. Flood Insurance Rate Maps (FIRM) dated June 17, 2008
- C. Updated WC 4.172 Flood Plain text language
- D. DLCD audit of the City's existing flood plain regulations.
- E. Email from Mark Darienzo, DLCD Flood Plain Modernization Coordinator to Chris Neamtzu dated 2/22/08.
- F. *Adoption of Flood Insurance Rate Maps by Participating Communities* –FEMA 495/September 2005
- G. FEMA's Flood Insurance Study for Clackamas County and incorporated areas (2 large bound documents available upon request)

New City Council Exhibits:

- H. Letter from David Maurstad, Assistant Administrator Mitigation Directorate to Mayor Lehan dated March 13, 2008.
- I. Letter from Ryan Miller, Map Modernization Coordinator, DLCD, to Community Floodplain Managers dated March 25, 2008

**CC Public Hearing Version 4.07.08 – Exhibit C**

**Proposed Changes to WC 4.172 Flood Plain Regulations.**

New language is in **bold**; Deleted language is ~~struck through~~:

**Definitions –**

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

**“Development”: Any human caused 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 floodplain~~ **storage of equipment or materials located within the area of special flood hazard.****

**“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.**

**Manufactured Home: A structure built on a permanent chassis and designed for use with or without a permanent foundation when attached to the required utilities for movement on the public highways, that has sleeping cooking and plumbing facilities, that is intended for human occupancy, and was constructed in accordance with the Federal Manufactured Housing Construction and Safety Standards regulations in effect at the time of construction. 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 flood insurance purposes, and City zoning standards, the term “manufactured home” does not include park trailers, travel trailers and other similar vehicles.**

**“New Construction” means structures for which the “start of construction” commenced on or after June 17, 2008.**

308. 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 or within any lawful extension of the 180 day permit period provided for by the Oregon State Structural Specialty Codes. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Structure: Anything built which requires location on the ground or is attached to something having a location on the ground. ~~For purposes of the City's Flood Plain Development Regulations, things located below grade are not considered to be structures, unless they are subterranean buildings, basements or cellars.~~

**"Substantial Damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to it's 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 fifty percent (50 percent) of the market value of the structure, as determined by the City's Building Official, either:

- A. Before the improvement or repair is started, or
- B. 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 is not used in the same manner as the term "substantial development" and does not 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 4.172. Flood Plain Regulations.**

(.01) Purpose:

- A. To minimize public and private losses due to flood conditions in flood-prone areas.
- B. To regulate uses and alteration of land which would otherwise cause erosion, decreased storm water storage capability, increased flood heights or velocities.

- C. To require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction, alteration or remodeling.
- D. To restrict filling, grading, dredging, and other development which would increase flood damage.
- E. To prevent construction of flood barriers which would unnaturally divert flood waters or increase flood hazards in other areas.
- F. To properly regulate the 100-year flood plain identified by the Federal Insurance Administration (FIA) in the "Flood Insurance Study for **Clackamas County and Incorporated Areas** ~~the City of Wilsonville~~" dated **effective June 17, 2008** ~~July 6, 1981~~, and displayed on FIA Floodway and Flood Insurance Rate Maps dated **effective June 17, 2008, which are on file with the City's Community Development Department.**
- G. To implement the policies of the Comprehensive Plan and to provide standards consistent with - Wilsonville's adopted Storm Drainage Master Plan.
- H. To insure the City and its residents and businesses, continued eligibility in the National Flood Insurance Program by complying with the requirements of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

(.02) General Provisions Affecting Flood Plains:

- A. This section shall apply to all flood plain areas in the City of Wilsonville identified by the Flood Insurance Rate Map. No Building Permits or Construction Permits for development within the flood plain shall be issued except in compliance with the provisions of the Section.

**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 "Flood Insurance Study - Clackamas County, Oregon and Incorporated Areas effective June 17, 2008," with accompanying Flood Insurance Rate Maps (effective date June 17, 2008) is hereby adopted by reference and declared part of this ordinance. The Flood Insurance Study is on file at the City of Wilsonville Community Development Department.**

- B C.** The City of Wilsonville Community Development Director shall review all Building and Grading Permit applications for new construction or substantial improvement to determine whether proposed building or grading sites will be located in a flood plain. If a proposed building or grading site is located within a flood plain, any proposed new construction, grading, or substantial improvement (including prefabricated and manufactured housing) must:

1. Be designed (or modified) and anchored to prevent flotation, collapse or lateral movement of the structure.
  2. Use construction materials and utility equipment that are resistant to flood damage,
  3. Use construction methods and practices that will minimize flood damage, and
  4. Limit the addition of any fill material such that the total volume of fill within the flood plain does not exceed the volume of material removed from the flood plain in the same area.
- Ⓒ D. That the City of Wilsonville Planning Director shall review subdivision proposals and other proposed new developments within the flood plain to assure that:
1. all such proposals are consistent with the need to minimize flood damage,
  2. all public utilities and facilities, such as sewer, gas, electrical and water systems are located, elevated and constructed to minimize or eliminate flood damage,
  3. adequate drainage is provided so as to reduce exposure to flood hazards, and
  4. No new lots or parcels shall be created for the purpose of increasing the development of buildings for human occupancy within the flood plain.
- Ⓓ E. That the City of Wilsonville Community Development Director shall require new or replacement water supply systems and/or sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and require on-site waste disposal systems to be located so as to avoid impairment of them or contamination from them during flooding.

(.03) Development Permit Required:

- A. A Development Permit shall be obtained before construction or development, including grading, begins within any area of special flood hazard. The Permit shall be for all structures including manufactured homes and for all development including fill and other activities.
- B. Outright Permitted Uses in the 100-year Flood Plain:
  1. Agricultural use that is conducted without a structure other than a boundary fence.
  2. Recreational uses which would require only minor structures such as picnic tables and barbecues.
  3. Residential uses that do not contain buildings.
  4. Underground utility facilities.
  5. Repair, reconstruction or improvement of an existing structure, the cost of which is less than 50 percent of the market value of the structure, as determined by the City's Building Official, prior to the improvement or the damage requiring reconstruction, provided no development occurs in the floodway.

(.04) Uses within the 100-year Flood Plain requiring a Flood Plain Permit:

- A. Any development except as specified in subsection (.03), above, that is otherwise permitted within the Zoning District provided such development is consistent with the Flood Plain Standards.
- B. All subdivisions and land partitions.
- C. Installation of dikes to provide buildable or usable property, provided that said dikes do not conflict with the policies of the Comprehensive Plan and this Section.

(.05) Prohibited Uses in the 100-year Flood Plain:

- A. Any use or building which stores or otherwise maintains hazardous materials, chemicals, explosives or any other similar materials.
- B. Storage of any materials that are not properly anchored, enclosed or protected to prevent movement or flotation beyond the property lines.

**C. Critical Facility**

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

(.06) Flood Plain Permit Review Process:

- A. The Community Development Director is **the local flood plain administrator and is** hereby appointed to administer and implement this Section by granting or denying Development Permit applications in accordance with its provisions.
- B. Duties and Responsibilities of the Community Development Director:
  - 1. Duties of the Community Development Director shall include, but not be limited to:
    - a. Review all Development Permits to determine that the permit requirements 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 government agencies from which prior approval is required. Notify the State Department of Land Conservation and Development and FEMA of final permit decision.

- 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 limitations of subsection (.07)(H) are met.
- C. The Permit process for developments not regulated by Section 4.140 shall be as follows:
  - 1. Pre-application conference with the Planning Department in accordance with the procedures set forth in **Section 4.008**.
  - 2. A complete application in accordance with this Section shall be submitted to the Community Development Director.
  - 3. Within 30 days of complete application, the Community Development Director shall approve or deny the application based on the following Findings:
    - a. Reports from the City Engineer and Planning Director as to the applicant's submittal documents' compliance with this Section, including recommendations.
    - b. The proposed development's compliance with other provisions of the Comprehensive Plan and Zoning Regulations.
- D. The decision of the Community Development Director may be appealed to the Development Review Board, upon written notice to the City Recorder within ten (10) calendar days of the date of final decision. Upon appeal, the Board shall hear the matter in accordance with **Section 4.022**
- E. Any flood plain development proposed for property regulated under Section 4.140 shall be considered by the Development Review Board and the Community Development Director as part of the Planned Development Permit process.
- F. Submittal requirements.
  - 1. A field survey in relation to mean sea level by a licensed surveyor or civil engineer of the actual location of the 100-year flood plain, fringe, floodway and the lowest habitable finished floor elevations, including basements, of all existing structures.
  - 2. A Site Plan map showing all existing and proposed contours and development and supplemented by a soils and hydrologic report sufficient to determine the net effect of the proposed development on the flood plain elevations on the subject site and adjacent properties. Proposed areas of cut or fill shall be clearly indicated.
  - 3. A soils stabilization plan for all cuts, fills and graded areas.
- G. Use and Interpretation of Base Flood Data and maps.
  - 1. When specific 100-year flood plain elevation data has not been provided in as required in this Section, the Community Development Director shall obtain, review and reasonably utilize any base flood elevation data available from Federal, State or other sources, in order to determine compliance with this Section.

2. The Community Development Director shall make the final interpretation of the exact 100-year flood plain boundaries on the FIRM and the Floodway Map. Appeals shall be granted consistent with the Standards of the rules and regulations of the National Flood Insurance Program **and pursuant to WC 4.172 (.08) Appeal Board.**

H. Monumentation and Recordation:

1. Prior to issuance of a Flood Plain Permit, the Community Development Director shall cause the placement of an elevation marker, set at two (2) feet above the 100-year flood elevation, on the subject property. The marker shall be properly identified and permanently monumented in concrete.
2. A Site Plan or map showing the location and elevation of the monument shall be submitted to and maintained on file by the Community Development Director.
3. Prior to issuance of an Occupancy Permit, for any structure within the 100-year flood plain, the Community Development Director shall insure by signature of a licensed surveyor or civil engineer (**elevation certificate**) that the finished floor elevation of **commercial, industrial and public buildings are** is one and one-half (1-1/2) feet above the 100-year flood elevation **and that residential uses are two-feet above the 100-year flood elevation.** The finished floor elevation shall be in relation to mean sea level, of the lowest floor (including basement) of all structures.

(.07) General Standards:

A. Anchoring:

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
2. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top of frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
3. All recreational vehicles must either be elevated and anchored or be on the site for less than 180 consecutive days **or** ~~and~~ be fully licensed and highway ready. A recreational vehicle is ready for highway use if its wheels are in place and it is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

B. Construction materials and methods:

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

3. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

4. **Below-grade crawl spaces:**

a. **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*:**

i. **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.**

ii. **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.**

iii. **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.**

iv. **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.**

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

vi. **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.

vii. 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.

viii. 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.

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

C. Utilities:

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

D. Alteration of Watercourses:

1. Provide description of the extent to which a watercourse will be altered or relocated as a result of proposed development.
2. Notify adjacent communities and the Federal Emergency Management Agency, Army Corps of Engineers, **Department of Land Conservation and Development** and **Department Division** of State Lands prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
3. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished. (Amended by Ord. #316, 7/6/87).

E. Residential Construction:

1. New construction and substantial improvement of any residential structure shall have the lowest finished floor, including basement, elevated **two (2) one and one-half (1-1/2)** feet above the 100-year flood elevation.

2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following 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.
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
3. Manufactured homes or mobile homes placed on sites within new or existing manufactured/mobile home parks shall be anchored to a permanent foundation and either:
  - a. Have the lowest floor 2' above the base flood elevation, or
  - ~~b. Have the chassis supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches above grade.~~
4. Manufactured/mobile homes outside of manufactured/mobile home parks shall meet all requirements for residential structures at the same locations.
5. All manufactured homes to be placed or substantially improved within Flood Hazard Zones AI-30, AH or 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 sub-section 4.172(.07)(A).

F. Nonresidential Construction:

1. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest finished floor, including basement, elevated one and one-half (1-1/2) feet above the 100-year flood elevation; or, together with attendant utility and sanitary facilities, shall:
  - a. Be floodproofed so that below the base flood level the structure is water-tight 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 standards of this subsection are satisfied. **Floodproofing certifications are required to be provided to the Community Development Director.**
  - d. Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as prescribed for residential construction, above.

- e. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).

H. Floodways:

1. Located within the flood plain - 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. Encroachments, including fill in any new development, or **substantial improvements** shall be prohibited unless certification by a registered professional engineer is provided, demonstrating that encroachments shall not result in any increase flood levels during the occurrence of the 100-year flood discharge.
  - b. All development shall comply with all applicable flood plain standards of Section 4.172.
  - c. All buildings designed for human habitation and/or occupancy shall be prohibited within the floodway.

I. Parking Lots and Storage Areas:

1. All parking lots and storage areas below the flood plain elevation shall be paved.
2. A minimum of twenty-five (25) percent of the required parking space must be provided above the 100-year flood plain elevation for all nonresidential uses.
3. Residential uses shall provide at least one parking space per unit above the 100-year flood plain elevation.

J. Subdivision Proposals:

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

- K. 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, 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.

(.08) Appeal Board.

- A. The Development Review Board as established by the City of Wilsonville shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- B. The Development Review Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the Community Development Director in the enforcement or administration of this ordinance.
- C. Those aggrieved by the decision of the Development Review Board may appeal such decision to the City Council.
- D. In acting upon such applications, the Development Review Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and
  - 1. the danger that materials may be swept onto other lands to the injury of others;
  - 2. the danger to life and property due to flooding or erosion damage;
  - 3. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - 4. the importance of the services provided by the proposed facility to the community;
  - 5. the necessity to the facility of a waterfront location, where applicable;
  - 6. the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - 7. the compatibility of the proposed use with existing and anticipated development;
  - 8. the relationship of the proposed use to the Comprehensive Plan and flood plain management program for that area;
  - 9. the safety of access to the property in times of flood for ordinary and emergency vehicles;
  - 10. the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
  - 11. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas electrical and water systems, and streets and bridges.
- E. Upon consideration of the factors of Sections 4.035, 4.184, and 4.196 and the purposes of this ordinance, the Development Review Board may attach such conditions to the granting of - permits as it deems necessary to further the purposes of this ordinance and to protect lives or property.

F. The Community Development Director shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

(.09) Conflicts. If any provisions of Section 4.172 conflict with any other Sections of this Code, the most restrictive shall apply.