### ORDINANCE NO. \_\_\_\_\_\_\_

AN ORDINANCE AMENDING TROUTDALE DEVELOPMENT CODE FOR COMPLIANCE WITH TITLE 3 OF THE METRO URBAN GROWTH MANAGEMENT FUNCTIONAL PLAN PERTAINING TO WATER QUALITY AND FLOOD MANAGEMENT and REPEALING TROUTDALE MUNICIPAL CODE CHAPTER 15.24 FLOOD DAMAGE PREVENTION.

### THE TROUTDALE CITY COUNCIL FINDS AS FOLLOWS:

- 1. Metro Title 3 of the Urban Growth Management Functional Plan describes specific performance standards and practices for floodplain and water quality protection to implement Oregon Statewide Planning Goal 6: Air, Water and Land Resources Quality and Goal 7: Areas Subject to Natural Disasters and Hazards.
- 2. Metro has adopted a Water Quality and Flood Management map identifying properties possibly subject to Title 3 performance standards.
- 3. Troutdale is required to amend its Comprehensive Land Use Plan and its Development Code to ensure compliance with Metro Title 3. Amendments to Troutdale Comprehensive Land Use Plan Goal 6: Air, Water and Land Resources Quality and Goal 7: Areas Subject to Natural Disasters and Hazards, are not necessary.
- 4. Troutdale Development Code Chapter 4.600 Flood Hazard and Water Quality Overlay District standards are revised to comply with the National Flood Insurance Program. And, since there are duplicate standards for flood management in the Troutdale Municipal Code (TMC), to avoid duplication, TMC Chapter 15.24 will be repealed.
- 5. Pursuant to compliance with Statewide Ballot Measure 56, which was adopted by Oregon voters on November 3, 1998, Metro circulated a public notice to all property owners affected by the proposed changes to the Development Code on September 1, 1999. As the City's proposed Development Code text amendments also affect properties having slopes of 25% or greater that are not mapped on the Title 3 maps, the City provided Metro with a list of those affected property owners, and Metro mailed the same notice to those affected property owners on September 1, 1999.
- **6.** Pursuant to Development Code Section 15.010, the text amendments are processed as Type IV legislative amendments.

## Ordinance No. 702

- 7. Pursuant to compliance with Development Code Section 15.020 Hearing Notice for a Legislative Type IV Procedure, a notice of the first evidentiary hearing in this matter was published in the Gresham Outlook on September 11, 1999.
- 8. Pursuant to Troutdale Development Code Chapter 15.050 Amendments, the Troutdale Planning Commission held a public hearing on September 22, 1999 in this matter, and recommended adoption of these text amendments to the City Council.
- **9.** Pursuant to Troutdale Development Code Section 15.050(A)(1) Approval Criteria for Text Amendments, the proposed text amendments comply with Oregon's Statewide Planning Goal 6 Air, Water and Land Resources Quality, and Goal 7 Areas Subject to Natural Disasters and Hazards, and related Administrative Rules.
- **10.** Pursuant to Troutdale Development Code Section 15.050(A)(2), the public need is best satisfied by the proposed text amendments. The proposed text amendments protect water quality and enhance public safety by reducing flood and landslide hazards and pollution of the region's waterways.
- **11.** Pursuant to Troutdale Development Code Section 15.050(A)(3), the proposed text amendments will not adversely affect the health, safety and welfare of the community. The development standards set forth in the Troutdale Development Code, will enhance and protect the health, safety and welfare of the community by reducing flood and landslide hazards and pollution of the region's waterways.
- **12.** Pursuant to Troutdale Development Code Section 15.050(A)(4), proposed text amendments to the Development Code do not conflict with applicable Troutdale Comprehensive Land Use Plan goals or policies. The proposed Development Code text amendments implement the goals and policies of Goal 6: Air, Water and Land Resources Quality and Goal 7: Areas Subject to Natural Disasters and Hazards.
- **13.** The following maps are referenced in the Troutdale Development Code:
  - a. The Metro Title 3 <u>Water Quality and Flood Management Map</u>, 1998, which includes data from: USGS, FEMA, Aerial photographs, information from the 1996 flooding, US Department of Fish and Wildlife.
  - b. The <u>Flood Insurance Rate Map</u> (FIRM) Community Panel Number 410184 005D, dated August 3, 1998.
  - c. The US Department of the Interior, Department of Fish and Wildlife <u>Wetland</u> <u>Inventory Map</u> (NWI) 1988 - Camas and Washougal sections.

## Ordinance No. <u>702</u>

- Chapter 1 Introductory Provisions: Section 1.040 Flood Hazard and Hillside Overlay District Definitions Section 1.050 Erosion Control and Water Quality Definitions
- Chapter 4.300 Hillside and Erosion Control Overlay District
- Chapter 4.600 Flood Hazard and Water Quality Overlay District
- Chapter 5.600 Erosion Control and Water Quality Overlay Standards
- Chapter 8 Site Orientation and Design Standards: Section 8.050 Procedures and Submission Requirements Subsection C. Filing Plans

### NOW, THEREFORE, BE IT ORDAINED:

- **Section 1.** That the following section of the Troutdale Development Code be repealed:
  - Chapter 1 Introductory Provisions: Section 1.050 Erosion Control and Water Quality Definitions
- **Section 2.** That the following sections and chapters of the Troutdale Development Code be revised:
  - Section 1.040 Vegetation Corridor & Slope District and Water Quality & Flood Management Definitions, as shown in Exhibit 1.
  - Chapter 4.300 Vegetation Corridor & Slope District (VECO), as shown in Exhibit 2.
  - Chapter 4.600 Flood Management Area (FLMA), as shown in Exhibit 3.
  - Chapter 5.600 Erosion Control and Water Quality Standards (ERCO), as shown in Exhibit 4.
  - Chapter8.000 Site Orientation and Design Standards Section 8.050 Procedures and Submission Requirements, be amended to read as shown in Exhibit 5.

Ordinance No. <u>702</u>

**Section 3.** That the following new chapter be adopted into the Troutdale Development Code:

- Chapter 5.800 Stormwater Management (STMA), as shown in Exhibit 6.
- **Section 4.** That the following maps be repealed:
  - City of Troutdale Slope Map
  - City of Troutdale Flood Plain and Stream Corridor Map
- **Section 5.** That the following maps, and the replacement maps be adopted as reference only:
  - Metro title 3 "Water Quality and Flood Management Map, 1998."
  - The "Flood Insurance Rate Map, Community Panel Number 410184 0005D, dated August 3, 1998.
  - The US Department of the Interior, Department of Fish and Wildlife "Wetland Inventory Map (NWI) 1988 - Camas and Washougal sections."
- **Section 6.** That Troutdale Municipal Code Chapter 15.24 Flood Damage Prevention be repealed.
- Section 7. Effective Date. This ordinance takes effect thirty (30) days after it is adopted.

PASSED BY THE TROUTDALE CITY COUNCIL THIS <u>24thDAY OF October</u> 2000.

YEAS: 4 NAYS: 0 ABSTAINED: Cere

Paul Thalhofer, Mayor

Dated: 10-25-00

ATTEST:

Debbie Stickney, City Regorder

Dessie Guerney, Oity Resoluei

Adopted: October 24, 2000

# **EXHIBIT 1**

### 1.040 Vegetation Corridor & Slope District and Water Quality & Flood Management Definitions

1.040.01 <u>Appeal</u>. A request for a review of the Director's interpretation of any provision of this ordinance or request for a variance from requirements of Chapter 4.600 Flood Management Area.

1.040.02 <u>Area of Special Flood Hazard (100 Year Flood Plain)</u>. The land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on FEMA Flood Insurance Rate Maps (FIRM) always includes the letters A or V.

1.040.03 <u>Bankfull Stage</u>. As defined in the Oregon Administrative Rules pertaining to removal/fill permits, the stage or elevation at which water overflows the natural banks of a stream or other waters of the state and begins to inundate upland areas. In the absence of physical evidence, the two-year recurrent flood elevation (storm level) may be used to approximate the bankfull stage. The bankfull stage is the starting point for measuring the width of a vegetation corridor from a protected water feature. In the absence of any data to establish the bankfull stage or two-year storm event, the starting point for measuring the vegetation corridor is determined by the following indicators: 1) water marks on fixed objects (vegetation, rocks, buildings, etc.); 2) drift lines (deposited waterborne twigs, litter, etc.); or 3) waterborne sediment deposits on the soil surface or fixed objects (vegetation, rocks, buildings, etc.);

1.040.04 <u>Base Flood</u>. A flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year" flood.

1.040.05 <u>Basement.</u> Any area of the building having its floor subgrade (below ground level) on all sides.

1.040.06 <u>Conservation Easement.</u> An easement applied to environmentally sensitive lands, including, but not limited to, lands identified as hillsides, wetlands, flood plains and floodways. The field verification shall be done by a licensed surveyor, engineer, hydrologist or any other licensed specialist in the fields of engineering, hydrology or botany. A conservation easement prohibits most forms of development, and assures that native vegetation will be maintained or enhanced. Conservation easements usually affect privately owned land, and are enforceable by the City of Troutdale. Trails and limited public facilities may be permitted under carefully controlled conditions within conservation easements.

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

does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

1.040.08 <u>Debris.</u> Debris includes discarded man-made objects and may include: tires, vehicles, litter, scrap metal, construction waste, lumber, plastic or styrofoam. Debris does not include objects necessary to a use allowed by this ordinance, or ornamental and recreational structures. Debris does not include existing natural plant materials or natural plant materials which are left after flooding, downed or standing dead trees or trees which have fallen into protected water features.

1.040.09 <u>Department of Environmental Quality (DEQ) Water Quality Standards</u>. DEQ water quality standards are the numerical criteria or narrative condition needed in order to protect an identified beneficial use.

1.040.10 <u>Design Flood Elevation</u>. The elevation of the 100-year storm as defined in FEMA Flood Insurance Studies or, in areas without FEMA flood plains, the elevation of the 25-year storm, or the edge of mapped flood prone soils or similar methodologies.

1.040.11 <u>Developer</u>. The owners of property or their agents or contractors, or their successors and assigns, who have undertaken or are proposing development which is regulated by Chapters 4.300 <u>Vegetation Corridor and Slope District</u>, 4.600 <u>Flood Management Area</u>, 5.600 <u>Erosion Control and Water Quality</u> and 5.800 <u>Stormwater Management</u> of this Code.

1.040.12 <u>Development</u>. Any man-made change to improved or unimproved real estate, including but not limited to construction, installation or change of a building or a structure, land division, storage on the land, tree cutting, drilling and site alteration such as that due to land surface mining, dredging, grading, paving excavation or clearing. Development does not include the following:

a) Stream enhancement or restoration projects approved by the Oregon Division of State Lands, the Oregon Department of Fish and Wildlife, the US Army Corps of Engineers and the City or Multnomah County;

b) Farming practices and farm use as defined in the Oregon Revised Statutes, which were actively occurring prior to December 1999, and all modifications to existing buildings. Construction of new buildings associated with farm practices and farm uses are subject to the requirements of Section 5.080 <u>Agricultural Use Permitted</u> and Section 5.611E Exemptions.

1.040.13 <u>Disturb</u>. Any man-made changes to the existing physical status of the land, which are made in connection with development. The following uses are excluded from the definition: a) enhancement or restoration of the Water Quality Resource Area; b) planting native cover identified in the Metro Native Plant List.

1.040.14 <u>Emergency</u>. Any man-made or natural event or circumstance causing or threatening loss of life, injury to person or property, and includes, but is not limited to, fire, explosion, flood, severe weather, drought earthquake, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation disruptions, and disease.

1.040.15 Engineer. A registered professional engineer licensed by the State of Oregon.

1.040.16 <u>Enhancement</u>. The process of improving upon the natural functions and/or values of an area or feature which has been degraded by human activity. Enhancement activities may or may not return the site to a pre-disturbance condition, but create/recreate processes and features that occur naturally.

1.040.17 <u>Erosion</u>. Erosion is the detachment and movement of soil particles, rock fragments,, or other material, organic or inorganic, resulting from actions of water, wind, human or animal activity.

1.040.18 <u>Erosion Prevention and Sediment Control Plans, Technical Guidance Handbook</u>. The reference authority for erosion control, abbreviated as The Handbook. Published by the City of Portland Bureau of Environmental Services and the Unified Sewerage Agency of Washington County. The most current edition shall be used. The Community Development Director and Public Works Director may also develop regulations and procedures in accordance with The Handbook to implement erosion control measures as needed.

1.040.19 <u>Erosion, visible or measurable</u>. Visible or measurable erosion includes, but is not limited to: 1) Deposits of mud, dirt sediment or similar material exceeding one-half cubic foot in volume on public or private streets, adjacent property, or onto the storm and surface water system, either by direct deposit, dropping discharge, or as a result of the action of erosion; 2) Evidence of concentrated flows of water over bare soils; turbid or sediment laden flows; or evidence of on-site erosion such as rivulets on bare soil slopes, where the flow of water is not filtered or captured on the site; 3) Earth slides, mudflows, earth sloughing, or other earth movement that leaves the property.

1.040.20 Excavation. Any act by which soil or rock is cut into, dug, quarried, uncovered, removed, displaced or relocated.

1.040.21 <u>Fill</u>. Any material such as, but not limited to, sand, soil, rock, gravel, clay or mud that is placed on a site for the purposes of development or redevelopment.

1.040.22 FIRM. See Flood Insurance Rate Map.

1.040.23 <u>Flood or Flooding</u>. A general and temporary condition of partial or complete inundation of normally dry land areas from: a) The overflow of inland or tidal waters and/or; b) The unusual and rapid accumulation of runoff of surface waters from any source.

1.040.24 <u>Flood Insurance Rate Map (FIRM)</u>. The official map of a community for which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

1.040.25 <u>Flood Insurance Study</u>. The official report provided by the Federal Emergency Management Agency (FEMA) that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

1.040.26 <u>Flood Management Area</u>. All lands contained within the 100-year floodplain, flood area and floodway as shown on the FIRM and the area of inundation for the February 1996 flood. In addition, all lands which have documented evidence of flooding.

1.040.27 <u>Floodplain</u>. The land area identified and designated by the United States Army Corps of Engineers, the Oregon Division of State Lands, FEMA, or the City of Troutdale that has been or may be covered temporarily by water as a result of a storm event of identified frequency. It is usually the flat area of land adjacent to a stream or river formed by floods.

1.040.28 Floodplain, 100-year. See Base Flood.

1.040.29 <u>Floodway</u>. The portion of a watercourse required for the passage or conveyance of a given storm event as identified and designated on the Flood Insurance Rate Map as produced by the Federal Emergency Management Agency. The floodway shall include the channel of the watercourse and the adjacent floodplain that must be reserved in an unobstructed condition in order to discharge the base flood without increasing the flood levels by more than one foot.

1.040.30 Joint Fill Permit / 404 Removal/Fill Permit. A permit issued jointly by the Oregon Division of State Lands (DSL) and the US Army Corps of Engineers to allow, with conditions and mitigation, the removal or fill of wetlands determined to be of either local or state significance by DSL.

1.040.31 <u>Lowest floor</u>. 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 the Flood Hazard regulations.

1.040.32 <u>Mitigation</u>. The reduction of adverse effects of a proposed project by considering, in the order: a) avoiding the impact all together by not taking a certain action or parts of an action; b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; c) rectifying the impact by repairing, rehabilitating or restoring the effected environment; d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action by monitoring and taking appropriate measures; and e) compensating for the impact by replacing or providing comparable substitute water quality resource areas.

1.040.33 <u>Mulch</u>. Application of plant residue, netting, or other suitable materials to the land surface to conserve moisture, hold soil in place and aid in establishing plant cover.

1.040.34 <u>National Wetland Inventory (NWI) Map</u>. The City of Troutdale is mapped on the Camas and Washougal, Washington-Oregon wetland maps prepared by the US Department of the Interior, Fish and Wildlife Service.

1.040.35 <u>NPDES Permit</u>. The National Pollutant Discharge Elimination System 1200-C Permit is a State of Oregon, Department of Environmental Quality (DEQ) permit that covers federal storm water regulations as they pertain to construction activities in Oregon. The permit is administered by the City.

1.040.36 <u>ODFW Construction Standards</u>. The Oregon Department of Fish and Wildlife construction guidelines for building roads, bridges and culverts or any transportation structure within a waterway.

1.040.37 <u>Open Space</u>. Land that is undeveloped and that is planned to remain so indefinitely. The term encompasses parks, forests and farm land. It may also refer only to land zoned as being available to the public, including playgrounds, watershed preserves and parks.

1.040.38 <u>Perennial Streams</u>. All primary and secondary perennial waterways mapped by the U.S. Geological Survey, having year-round flow.

1.040.39 <u>Practicable</u>. Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose.

1.040.40 <u>Protected Water Features, Primary</u>. Primary Protected Water Features shall include: 1) Title 3 wetlands; and 2) rivers, streams (creeks or brooks) and drainages downstream from the point at which 100 acres or more are drained to that water feature (regardless of whether it carries year-

round flow); and 3) streams carrying year-round flow; and 4) springs which feed streams and wetlands and have perennial (year-round) flow and 5) natural lakes.

1.040.41 <u>Protected Water Features, Secondary</u>. Secondary Protected Water Features include intermittent streams and seeps downstream of the point at which 50 acres are drained and upstream of the point at which 100 acres are drained to that water feature.

1.040.42 <u>Restoration</u>. The process of returning a disturbed or altered area or feature to a previously existing natural condition. Restoration activities reestablish the structure, function, and/or diversity to that which occurred prior to impacts caused by human activity.

1.040.43 <u>Resource</u>. A "resource" is a functioning natural system such as a wetland or stream.

1.040.44 <u>Riparian</u>. Those areas associated with streams, lakes and wetlands where vegetation communities are predominately influenced by their association with water.

1.040.45 <u>Routine repair and maintenance</u>. Activities directed at preserving an existing allowed use or facility, or nonconforming use without expanding the development footprint or site use.

1.040.46 <u>Sediment</u>. Any material that is in suspension, is being transported, or has been moved from its site of origin by water, wind, or gravity as a result of erosion.

1.040.47 <u>Site.</u> The lot, or contiguous lots under the same ownership, that are subject to a development permit or erosion control plan.

1.040.48 <u>Slope District.</u> Slopes of 25% or greater throughout the City that have a minimum horizontal distance of 50 feet. Engineered slopes associated with a public streets or roads are not included.

1.040.49 <u>Statewide Planning Goal 5</u>. Oregon's statewide planning goal that addresses open space, scenic and historic areas, and natural resources. The purpose of the goal is to conserve open space and protect natural and scenic resources.

1.040.50 <u>Statewide Planning Goal 6</u>. Oregon's statewide planning goal that addresses air, water and land resources quality to "maintain and improve the quality of the air, water and land resources of the state" as implemented by the Land Conservation and Development Commission (LCDC).

1.040.51 <u>Statewide Planning Goal 7</u>. Oregon's statewide planning goal that addresses areas subject to natural disasters and hazards to "protect life and property from natural disasters and hazards" as implemented by the Land Conservation and Development Commission (LCDC).

1.040.52<u>Stockpile</u>. On-site storage of any soil, sand, gravel, clay, mud, debris, vegetation, refuse or any other material, organic or inorganic, in a concentrated state.

1.040.53 <u>Stream</u>. A body of running water moving over the earth's surface in a channel or bed, such as a creek, rivulet or river. It flows at least part of the year, including perennial and intermittent streams. Streams are dynamic in nature and their structure is maintained through build-up and loss of sediment.

1.040.54 Stream Bank, top of. See Bankfull Stage.

1.040.55 <u>Structure</u>. A building or other improvement that is built, constructed or installed.

1.040.56 <u>Substantial improvement</u>. Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

- 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 purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.
- c. The term does not, however, include either:
  - 1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or
  - 2) any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

1.040.57 <u>Surface Water Management System</u>. All natural and constructed facilities used to regulate the quantity and quality of surface water, including drainage easements, culverts, storm drains, catch

basins, drainage ditches, natural drainage ways, stream corridors, rivers, ponds, wetlands and impoundments.

1.040.58 <u>Title 3</u>. Title 3 is part of the Metro *Urban Growth Management Functional Plan* pertaining to water quality, flood management and fish and wildlife conservation and directly pertains to Statewide Planning Goals 5, 6 and 7.

1.040.59 <u>Vegetation, approved.</u> Vegetation which typically does not require irrigation or fertilization, because it is adapted to natural soil, water and climatic conditions. The list of approved vegetation species is based on the Metro Native Plant List, and is on file in the Community Development Department.

1.040.60 <u>Vegetation corridor</u>. The undisturbed area between a development and a protected water feature as designated in Sections 4.316 <u>Width of Vegetation Corridor</u> and 4.317 <u>Proposed Method</u> for Determining Vegetation Corridors of this Code, or slopes of 25% or greater throughout the City, excepting engineered slopes associated with public streets or roads.

1.040.61 <u>Vegetation, invasive, non-native or noxious</u>. Plant species that have been introduced and due to aggressive growth patterns and lack of natural enemies in the area where introduced, spread rapidly into native plant communities, or which are not listed on the Metro Native Plant List.

1.040.62 <u>Vegetation, native</u>. Native vegetation is any vegetation native to the Portland metropolitan area or listed on the Metro Native Plant List.

1.040.63 <u>Water features</u>. See Protected Water Features, primary and secondary.

1.040.64 <u>Water Quality Resource Area</u>. The water quality resource area is the vegetation corridor and the adjacent water feature as established in Title 3 of Metro's Urban Growth Management Functional Plan.

1.040.65 <u>Water quality facility</u>. A created or constructed structure or drainageway that is designed, constructed and maintained to collect, filter, retain or detain, surface water run-off during and after a storm event for the purpose of stormwater management and water quality improvement. The facility may take on characteristics of a wetland, but it does not become a resource.

1.040.66 <u>Watershed</u>. A geographic unit defined by the flows of rainwater or snowmelt. All land in a watershed drains to a common outlet, such as a stream, lake or wetland.

ADOPTED 10/24/2000

8

1.040.67 <u>Wetlands</u>. Areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands are those areas identified and delineated by qualified wetland specialist as set forth in the 1987 Corps of Engineers Wetland Delineation Manual.

- a. <u>Wetland Determinations</u>. The identification of an area as either wetland or nonwetland.
- b. <u>Wetlands, constructed</u>. Wetlands developed as a water quality or quantity facility, subject to change and maintenance as such. These areas must be clearly defined and/or separated from naturally occurring or created wetlands.
- c. <u>Wetlands, created</u>. Those wetlands developed in an area previously identified as a non-wetland to replace, or mitigate wetland destruction or displacement. A created wetland shall be regulated and managed the same as an existing wetland.
- d. <u>Wetlands, Title 3.</u> Wetlands of metropolitan concern as shown on the Metro *Water Quality and Flood Management Overlay District* Map and other wetlands not mapped but determined significant by DSL, consistent with the criteria in Title 3, Section 7.C. of Metro's Urban Growth Management Functional Plan. Title 3 wetlands do include created wetlands approved and monitored by DSL and the US Army Corps of Engineers. Title 3 wetlands do not include artificially constructed and managed stormwater and water quality treatment facilities.

# **EXHIBIT 2**

### 4.300 VEGETATION CORRIDOR & SLOPE DISTRICT

- 4.310 <u>Purpose</u>. The purpose of these standards is to promote the public health, safety, and general welfare. Provisions under this Chapter are designed to:
  - A. Restrict or prohibit uses, activities or development which is damage-prone or damageinducing to the land or to water quality;
  - B. Require uses vulnerable to landslides, including public facilities which serve such uses, to be protected at the time of initial construction;
  - C. Maintain land and water quality by minimizing erosion and sedimentation, and by restricting or prohibiting development, excavation and vegetation removal on vegetation corridors and slopes associated with primary and secondary protected water features and on slopes of 25% or greater not directly associated with a protected water feature.
  - D. To comply with the provisions of Title 3 of the Metro Urban Growth Management Functional Plan and Statewide Planning Goal 6 (Air, Water and Land Resources Quality) and Goal 7 (Natural Hazards).
- 4.311 <u>Applicability</u>. The standards apply to all development in the Vegetation Corridor and Slope District as defined in Section 1.040 of this Code. The Vegetation Corridor, inclusive of the wetland areas identified on the US Department of the Interior, Fish and Wildlife Service "National Wetland Inventory" 1988 (NWI), are generally mapped on the Metro Title 3 map. Metro's Title 3 map is used as reference only. Not all wetlands recognized by the Oregon Division of State Lands are mapped on either the NWI or Title 3 map.
  - A. Specific determination of the Vegetation Corridor and Slope District shall be made at the time of a development proposal. The final boundary shall be based on a topographical and slope analysis provided by a professional licensed surveyor in the State of Oregon, and a wetland delineation, if applicable, submitted by a qualified wetland specialist. The Oregon Division of State Lands must approve delineations of wetlands under their jurisdiction. The City will keep a record of all surveys and wetland delineations as revisions to the local copy of the Title 3 map. The survey will be used instead of the Title 3 map to determine the vegetation corridor width. The City will submit this information to Metro for future updates of the Title 3 map.
    - 1. The vegetation corridor is the minimum buffer width to be established between development and a protected water feature as defined in Section 1.040. The vegetation corridor width is determined by following the methods

VECOOCT24COUNCIL.WPD

ADOPTED OCT 24, 2000

established in Section 4.316 <u>Width of Vegetation Corridor</u> and Section 4.317 <u>Method for Determining Vegetation Corridors Next to Primary Protected</u> <u>Water Features</u>.

- 2. The Slope District consists of slopes of 25 percent or greater that have a horizontal distance of 50 feet or greater in any area of the City.
- 3. Exceptions:
  - a. Engineered slopes associated with public streets.
  - b. Development of lots within subdivisions platted with conservation easements and/or buffers specified on that plat that are less than those specified in Section 4.316 Width of Vegetation Corridor. Development on the lot within said subdivision shall still be subject to all other applicable development standards of this Code.
- B. Properties within the Vegetation Corridor and Slope District may also be within the Flood Hazard and Water Quality Overlay District (Chapter 4.600 of this Code), and subject to the development standards therein.
- C. Warning and Disclaimer of Liability. The degree of landslide protection required by this Chapter is considered reasonable for regulatory purposes and is based on common engineering and scientific practices. Landslides may occur on rare occasions in areas outside the vegetation corridors and may occur on slopes less than 25%. This Chapter does not imply that compliance with these standards will assure that property will be free from significant mass movement or landslide damage. This Chapter shall not create City liability for damage resulting from reliance on the provisions of this Chapter or any administrative decision lawfully made thereunder.

### 4.312 Uses Within the Vegetation Corridor and Slope District.

- A. Permitted Uses within the Vegetation Corridor and Slope District.
  - 1. Open space and trails, walkways and bike paths, as designated by the Troutdale Parks Plan, or as approved with a land use application, and in compliance with Section 4.315(D).
  - 2. Removal of refuse and unauthorized fill.

- 3. Removal of nuisance or invasive plant species, or planting of approved vegetation species on the Metro Native Plant List subject to the approval of a removal / revegetation plan prepared by a licensed landscape architect, landscape designer, botanist or arborist with specific knowledge of native plant species, planting and maintenance methods, survival rates, and their ability to control erosion and sedimentation in compliance with chapter 5.600. The Metro Native Plant List will be kept on file at the Community Development Department.
- 4. Removal of dead or dying trees that are an imminent danger to public safety as determined by the Director.
- 5. Expansion of existing streets and public utility facilities or construction of new streets and public utility facilities necessary to support permitted development outside the vegetation corridor and on slopes less than 25% in compliance with Section 4.315 G.
- 6. Routine repair and maintenance of existing structures (conforming and nonconforming uses), streets, driveways, utilities, accessory uses and other existing development on the site (including landscaped yards, decks, patios, boat ramps, etc.) if the development existed prior to the effective date of these standards.
- 7. Any permitted use in the underlying zoning district developed in compliance with Section 4.315.
- 8. Construction of stormwater quality facilities in compliance with the standards of Section 5.840 of this Code.
- 9. Engineered retaining walls, or similar man-made walls are allowed to protect existing structures upon a determination from a licensed engineer that earth movement threatens the structural integrity of the building. Engineered retaining walls are not allowed to create land for new construction, or to prevent the earth movement of property that is not developed.
- 10. Rehabilitation or replacement of a structure that is damaged or destroyed to any extent, whether it is partially or fully within the Vegetation Corridor and slope District, in compliance with Section 4.315(E) <u>Prescribed Conditions</u> of

this Chapter. NOTE: Any structure or use deliberately removed or demolished may not be rehabilitated or replaced except as provided for in Section 4.315(A) <u>New Development</u>.

- B. Prohibited Uses within the Vegetation Corridor and Slope District, unless specifically permitted under Subsection A of this Section.
  - 1. Man made structures.
  - 2. Vegetation removal except as allowed in Section 4.312A(3).
  - 3. Private utility and road construction, including development of individual sewage disposal systems, including, but not limited to septic tanks.
  - 4. Excavation.
  - 5. No new partitions or subdivisions or property line adjustments within the industrial, commercial or residential zoning districts shall be approved on land that is exclusively within the Vegetation Corridor and Slope District, or that results in creating a new lot exclusively within the District.
  - 6. Outside storage of hazardous materials as defined by DEQ.
  - 7. Expansion of nonconforming uses.

#### 4.313 <u>Approval Procedures</u>. Permits are required for all uses within this district.

- A. Administrative Review: A Site Development Application shall be obtained for uses listed in Section 4.312(A) not requiring a building, plumbing, electrical or right-ofway permit.
- B. Type I Procedure: New development for a single-family dwelling within the Vegetation Corridor and Slope District shall be reviewed under the Type I Site and Design Review procedure only if the proposed use or structure meets all of these conditions:
  - 1. That development standards are met as prescribed under Section 4.315 and provisions are made for vegetation corridors as provided for in Section 4.316

VECO

<u>Width of Vegetation Corridor</u> and Section 4.31<u>7Method for Determining</u> <u>Vegetation Corridors Next to Primary Protected Water Features</u>;

- 2. That adequate protection is utilized to minimize landslide and erosion hazards, consistent with Chapter 5.600 Erosion Control and Water Quality Standards, Chapter 5.800 Stormwater Management, and that the reports as required in Section 4.314 Submission Requirements have been certified by a licensed engineer;
- C. Type II Procedure: The Site and Design Review Committee shall approve plans for any permitted use in the underlying zoning district requiring a building permit, other than a single family dwelling, under the Type II Site and Design Review Land Use Application.
- D. Type III Procedure: A variance from the standards of this Chapter shall be a Type III procedure. The Planning Commission shall review variances to this Chapter pursuant to Troutdale Development Code Section 6.220 Type II <u>Variance Criteria</u>. An affirmative finding must be made, with or without conditions, for each variance criteria.
- 4.314 <u>Submission Requirements</u>. For the purpose of minimizing sedimentation of protected water features, maintaining water quality and minimizing erosion and landslide hazards, where development is proposed within the Vegetation Corridor and Slope District, the Director shall require submission of the following information.
  - A. Site Development Application. A Site Development Application for purpose of implementing this Chapter shall consist of a grading and erosion control plan and a water quality plan. The applicant or developer shall be responsible for submitting such information with a land use application, or in the case of single family construction, submitted with the construction plans.
    - 1. Grading & Erosion Control Plan: The grading and erosion control plan for the development shall comply with <u>Technical Guidance Handbook</u>, <u>Erosion</u> <u>Prevention and Sediment Control Plans</u>, by the City of Portland Bureau of Environmental Services and the Unified Sewerage Agency of Washington County, this Chapter and Chapter 5.600 of this Code. The grading plan shall include information on terrain (two foot contours), drainage, direction of drainage flow, location of surface and subsurface devices, retaining walls, water wells, dams, sediment basins, storage reservoirs, gas pipeline easements,

or other in-ground utilities, either public or private, which may be affected by the proposed grading operations.

- a. A current topographical survey shall be prepared for the entire site. The contours shall be at two-foot intervals.
- b. At least three slope measurements along the affected water feature shall be made, at no more than 100-foot increments.
- c. The contour maps identifying slope percentages shall be prepared and certified by a licensed professional. The mapping shall depict the width of the vegetation corridor as established in Section 4.316 <u>Width of Vegetation Corridor</u> and Section 4.317 <u>Method for Determining</u> <u>Vegetation Corridors Next to Primary Protected Water Features</u>. The vegetation corridor width will vary from site to site.
- d. The grading plan shall also include a construction phase erosion control plan and a schedule of operations and shall be prepared by a professional engineer registered in Oregon.
- 2. Water Quality Plan: The applicant's engineer shall provide a water quality plan, consistent with the provisions of Chapter 5.600 of this Code and with the State of Oregon Department of Environmental Quality's (DEQ) National Pollutant Discharge Elimination System (NPDES) program administered by the City.
- B. A hydrology, geology and soils report of the site in accordance with the following:
  - 1. Is prepared by a licensed professional and certified by the same.
  - 2. Include information on the hydrological activities of the site, the effect of hydrologic conditions on the proposed development, and any hydrological or erosion hazards.
  - 3. Quantify the current stormwater volume and rate that leaves the site and show direction of flow within the site and toward adjoining properties.
  - 4. Include recommendations for the engineering and location of on-site detention facilities to meet the standards of Chapter 5.800 <u>Stormwater Management.</u>

ADOPTED OCT 24, 2000

- 5. Depict all stormwater facilities (swales, detention or retention ponds) existing or proposed, and show the finished contours and elevations, including all cut and fill slopes and proposed drainage channels.
- 6. Describe how the site is suitable for the proposed use, and why there is no practicable alternative to the site.
- 7. Include geological characteristics of the site and identify any geological hazard that might present a hazard to life and property, or adversely affect the use or stability of a public facility or utility.
- 8. Include information on the nature, distribution and strength of existing soils and an assessment of grading procedures required to impose the minimum disturbance to the existing topography and native vegetation.
- C. Vegetation Report. This report shall consist of a survey of existing vegetative cover, whether it is native or introduced. Measures for enhancement or revegetation with approved plant species will be clearly stated, as well as methods for immediate and long-term stabilization of slopes and control of soil erosion. The revegetation plan shall be prepared by a licensed landscape architect, landscape designer, botanist or arborist with specific knowledge of native plant species, planting and maintenance methods, survival rates, and their ability to control erosion and sedimentation, in compliance with Chapter 5.600.
- 4.315 <u>Development Standards</u>. Permitted uses in the vegetation corridor and slope district are to be developed in compliance with the following development standards:
  - A. New Development.
    - 1. The applicant shall demonstrate that no reasonably practicable alternative design or method of development exists that would have a lesser impact on the vegetation corridor and slope than the one proposed.
    - 2. If no such reasonably practicable alternative design or method of development exists, new structures and development shall be limited in scale, as specified in this Section, so that the impacts on the Vegetation Corridor and Slope District are the least necessary and the plans shall include restoration,

replacement or rehabilitation of the vegetation corridor and/or slope associated with the site:

- a. Notwithstanding the provisions of Chapter 6.220 Variance, of this Code, a maximum of 30% of the total area of the Vegetation Corridor and Slope District on the lot may be used for the development, inclusive of any walkways, driveways, patios, decks, accessory buildings, and similar impervious features.
- b. Notwithstanding the provisions of Chapter 6.220 Variance, where necessary to avoid construction within the Vegetation Corridor and Slope District the following provisions are available for lots of record affected by the Vegetation Corridor and Slope District.
  - 1) Setbacks may be reduced up to 50% from the underlying zoning district setback dimension where necessary to avoid construction on slopes of 25 percent or greater or within the required vegetation corridor, and otherwise meet the standards of Chapter 4.300.
  - 2) The maximum allowed height within the A-2 zoning district may be increased to 45 feet for apartment construction.
  - 3) In order to retain the density allowed within the underlying residential zoning district, the minimum lot area may be reduced up to 3,000 square feet in area if:
    - a) No buildable lot created is within the Vegetation Corridor and Slope District;
    - b) That portion of the original lot remaining within the Vegetation Corridor and Slope District is platted as a separate lot and preserved as open space;
    - c) Covenants, Conditions, and Restrictions are recorded for the maintenance of the open space lot created exclusively within the Vegetation Corridor and Slope District as provided in this Section.

- 3. The applicant shall provide mitigation to ensure that impacts to the functions and values of the vegetation corridor and integrity of the slope will be mitigated or restored to the extent practicable.
  - a. The existing tree canopy, and understory comprised of native plants, shall be retained wherever possible, outside of the building envelope. A tree preservation and maintenance plan is required to be submitted with the land use application as part of the landscaping plan, or in the case of a single family dwelling with the building permit. Only those trees approved for removal by the Director, the Site and Design Review Committee or Planning Commission may be removed.
  - b. Any disturbed portions of the site shall be restored and enhanced by removing non-native plants and noxious weeds and restoring the vegetation corridor with native plant species listed on the Metro Native Plant List. Only native grass varieties will be permitted.
  - c. A mitigation and restoration plan shall be submitted with construction plans, and shall be implemented prior to issuance of a Certificate of Occupancy.
  - d. The portion of the Vegetation Corridor and Slope District that is not disturbed with the use, shall be conserved and maintained as open space. This may occur through private ownership, through private conditions, covenants and restrictions, through conservation easements enforceable by the City or other public or private nonprofit agency, or where approved by the City Council, dedication to the City or donation to other appropriate public or private nonprofit agency.
- 4. The use satisfies all applicable standards of Chapter 4.600 Flood Management Area; Chapter 5.600 Erosion Control; and Chapter 5.800 Stormwater Management of this Code.
- 5. All excavation over 3 feet in depth shall require submission of an engineering report addressing the hydrology, geology and soils of the site as specified in this Chapter. The siting, engineering, erosion control, water quality and enhancement or revegetation of the site shall comply with the standards of this Chapter. The applicant's engineering plans shall certify that runoff from the

site will not increase above pre-development quantity and rate, and that visible and measurable erosion is prevented.

- B. Additions or alterations of development in the vegetation corridor and on slopes of 25% and greater, may be allowed provided that it meets the standards of Section 4.315(A) parts (1) through (3), as applicable, and the following:
  - 1. The addition or alteration is allowed in the underlying zoning district.
  - 2. The addition or alteration does not encroach closer to the Protected Water Feature than the existing structures, roadways, driveways or accessory uses and development.
  - 3. The addition or alteration satisfies the other applicable standards of this Chapter, Chapter 5.600 Erosion Control and Chapter 5.800 Stormwater Management of this Code.
- C. Construction of public utilities and public streets not included in the review of tentative plat, shall be processed as a Type II Site and Design Review Land Use Application, and shall be subject to the following approval criteria, and provided that it meets the standards of Section 4.315(A) parts (1) through (3), as applicable, are met, and the following:
  - 1. The application shall declare a need for a public street or public utility crossing of the Vegetation Corridor and Slope District.
  - 2. All grading and improvement plans, for such public street, including necessary accessory engineered slopes and utility extensions underneath the street, shall be submitted with the application.
  - 3. The location of the public street or public utilities is proper in relation to adjacent uses, the development of the community and to the various elements and objectives of the Comprehensive Plan and the Transportation System Plan.
  - 4. The public street or public utility will not be materially detrimental to the character of the neighborhood nor will it endanger the public health, safety and general welfare.

- 5. It has been demonstrated that the public street will improve and enhance traffic circulation in a manner advantageous to the public convenience and welfare.
- 6. The establishment of the proposed public street will not impede the normal and orderly development and improvement of surrounding property for permitted uses.
- 7. Adequate drainage devices, landscaping and other necessary appurtenances will be provided to city standards.
- 8. Alternative designs for street access have been evaluated and examined and have been determined to be infeasible.
- D. Approval Standards for Walkways and Bike Paths:
  - 1. A gravel walkway or bike path shall not be constructed closer than 10 feet from the boundary of the protected water feature. Walkways and bike paths shall be constructed so as to minimize disturbance to existing vegetation. Where practicable, a maximum of 10 percent of the trail may be within 30 feet of the protected water feature.
  - 2. A paved walkway or bike path shall not be constructed closer than 10 feet from the boundary of the protected water feature. For any paved walkway or bike path, the width of the vegetation corridor must be increased by a distance equal to the width of the path. Walkways and bike paths shall be constructed so as to minimize disturbance to existing vegetation. Where practicable, a maximum of 10 percent of the trail may be within 30 feet of the protected water feature; and
  - 3. A walkway or bike path shall not exceed 10 feet in width.
- E. Prescribed Conditions for the Rehabilitation or Replacement of Pre-existing structures.
  - 1. The structure was in existence prior to November 24, 2000.
  - 2. The use is allowed in the underlying zoning district at the time the application is made to rehabilitate or replace the structure.

#### VECOOCT24COUNCIL.WPD

- 3. The rehabilitation or replacement is rebuilt on the same footprint of the original structure.
- 4. The rehabilitation or replacement satisfies the applicable standards of Chapter 4.600 Flood Management Area, Chapter 5.600 Erosion Control and Chapter 5.800 Stormwater Management of this Code, and other applicable federal, state or county standards.
- 5. A site development application is submitted in accordance with Section 4.314 of this Chapter.

## 4.316 Width of Vegetation Corridor

Protected Water Feature	Slope Adjacent to Protected Water Feature <sup>1</sup>	Starting Point for Measurements from Water Feature	Minimum Width of Vegetation Corridor <sup>2 &amp; 3</sup>
Primary Protected Water Features	< 25%	<ul> <li>Edge of bankfull stage or 2-year storm level</li> <li>Delineated edge of Title 3 Wetland</li> </ul>	50 feet
Primary Protected Water Features	≥ 25% for less than 150 feet <sup>3</sup>	<ul> <li>Edge of bankfull stage or 2-year storm level</li> <li>Delineated edge of Title 3 Wetland</li> </ul>	Distance from starting point of measurement to top of ravine (break in $\ge$ 25% slope) <sup>4</sup> , plus 50 feet <sup>5</sup> .
Primary Protected Water Features	≥ 25% for 150 feet or more <sup>3</sup>	<ul> <li>Edge of bankfull stage or 2-year storm level</li> <li>Delineated edge of Title 3 Wetland</li> </ul>	200 feet⁴
Secondary Protected Water Features	< 25%	Edge of bankfull stage or 2-year storm level	15 feet
Secondary Protected Water Features	≥ 25% <sup>3</sup>	Edge of bankfull stage or 2-year storm level	50 feet

1. At least three slope measurements, evenly spaced along the frontage adjacent to the protected water feature, shall be made, at no more than 100-foot increments.

2. These minimum setbacks may be affected by other overlay standards.

3. Vegetation corridors in excess of 50-feet for Primary Protected Water Features, or in excess of 15-feet for Secondary Protected Water Features, apply on steep slopes only in the *uphill* direction from the protected water feature.

4. Where the Protected Water Feature is confined by a ravine or gully, the top of the ravine is the break in the slope that is  $\geq 25\%$  (see Figures 4 & 5 in Section 4.317). If a slope of  $\geq 25\%$  continues beyond this 200 feet, the development standards of this Chapter continue to apply until the break in slope.

5. A maximum reduction of 25 feet may be permitted in the width of vegetation corridor beyond the break in slope if a geotechnical report demonstrates that the slope is stable. To establish the width of the vegetation corridor, measure in 25-foot increments from the minimum setback away from the water feature until the slope is less than 25% (top of ravine).

4.317 Method for Determining Vegetation Corridors Next to Primary Protected Water Features.

**Figure 1.** <u>How to measure slopes</u>: Measure 50 feet horizontally (L1) from the bankfull stage and determine the slope (H1/L1 is the difference in elevation divided by the difference in horizontal distance multiplied by 100).

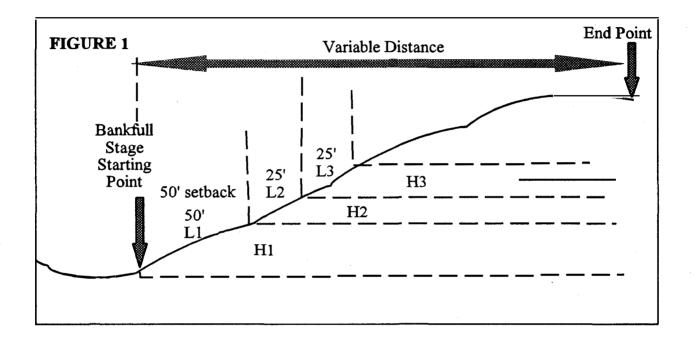


Figure 2. If the slope in this 50-foot area is less than 25%, the corridor width is 50 feet from the bankfull stage.

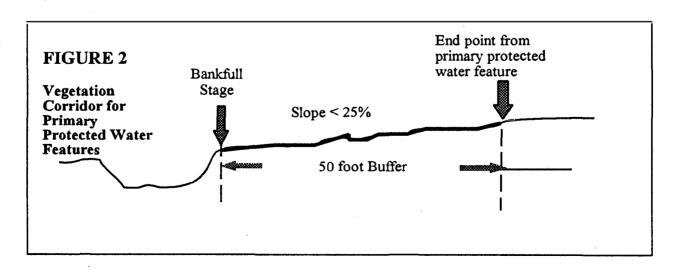
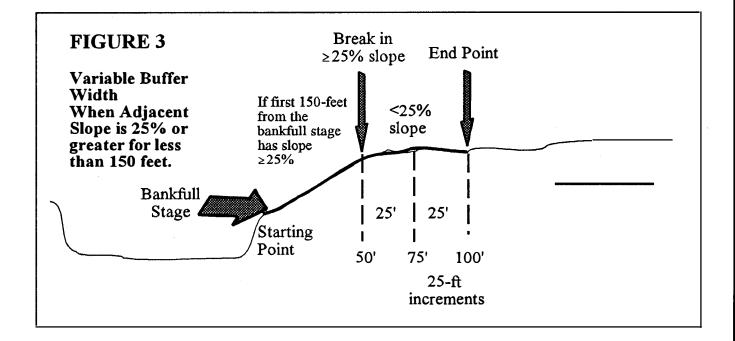
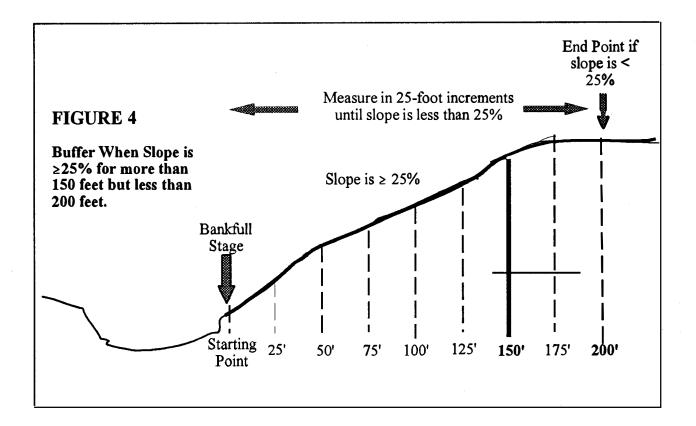


Figure 3. If the slope adjacent to the protected water feature is 25% or greater ( $\geq$ ) for less than 150 feet, measure horizontally in increments of 25 feet until the slope is *less than 25%* (H2/L2 < 25%) and add 50 feet. This is a variable end point. The vegetation corridor may be 50-, 75-, 100-, 125-, or 150-feet in width.



### VECO

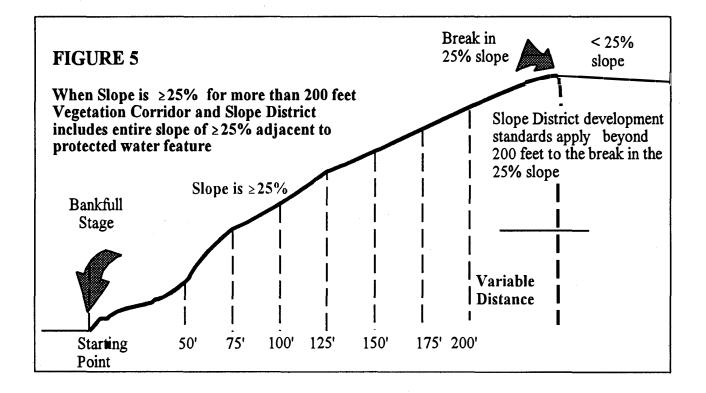
**Figure 4.** If the slope is greater than 25% in this incremental 25-foot area for more than 150 feet, continue measuring the slope every 25 feet (H/L) until you find a slope less than 25%. When you find a slope less than 25%, the vegetation corridor equals the distance from the bankfull stage to the *end point* of the last surveyed 25-foot increment with a slope greater than 25% *PLUS* an additional 50 feet up to a distance of 200 feet from the top of the bank. If the slope continues beyond 200 feet, refer to Figure 5.



VECO

ADOPTED OCT 24, 2000

Figure 5. When you reach 200 feet from the top of the bank and the slope continues to be  $\geq 25\%$  beyond the 200 feet, continue measuring until the break in the  $\geq 25\%$  slope. No additional setback will be required beyond the break in slope.



Advantages:

- Provides protection for slopes of 25% and greater, yet corridor widths can be varied to fit a number of different situations. Note: Development on slopes in excess of 25% beyond the vegetation corridor as determined by Table 4.316 and the proceeding methods, are still protected under the provisions of this Chapter pursuant to Section 4.311.
- Provides flexibility. The end point will be unique for each property based upon an actual topographical survey.

# **EXHIBIT 3**

## 4.600 FLOOD MANAGEMENT AREA

FLMA

- 4.610 <u>Purpose</u>. The purpose of this Chapter is to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions or degradation of water quality in specific areas by provisions designed:
  - A. To protect human life and health;
  - B. To minimize expenditure of public money and costly flood control projects;
  - C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
  - D. To minimize prolonged business interruptions;
  - E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
  - F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
  - G. To ensure that potential buyers are notified that property is in an area of special flood hazard;
  - H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions;
  - I. To maintain and improve water quality;
  - J. To minimize erosion and loss of native vegetation;
  - K. To maintain wetlands, including swamps, marshes, bogs and similar areas within the City, because wetlands help to maintain water quality and maintain flood storage capacities; and
  - L. To avoid any increase in base flood elevations as a result of development.

### 4.600 FLOOD MANAGEMENT AREA

- 4.611 <u>Methods of Reducing Flood Losses and Maintaining Water Quality</u>. In order to accomplish the purpose of this Chapter, this Section includes methods and provisions for:
  - A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
  - B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
  - C. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
  - D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
  - E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.
  - F. Maintaining and reintroducing approved vegetation, which minimizes erosion and helps to maintain and improve water quality.

#### 4.612 Applicability.

- A. This Chapter shall apply to all development of land within the Flood Management Area within the planning jurisdiction of the City of Troutdale.
- B. The 100-year floodplain has been mapped generally by the Federal Insurance Administration in a scientific and engineering report entitled, <u>The Flood Insurance Study for The City of Troutdale, Oregon</u>, dated August 3, 1998, as amended, with accompanying Flood Insurance Rate Map (FIRM), Community Panel Number 410184 0005D, dated August 3, 1998, as amended, published by the Federal Emergency Management Agency (FEMA). Metro has included the flood hazard areas from the FIRM and areas inundated by flooding in 1996, on the Title 3 map. The Title 3 maps, the Flood Insurance Study and the FIRM are adopted for reference only. The applicant for development within this area shall be responsible for precisely establishing base flood elevations and delineating the boundaries of the Flood Management Area based upon site-specific field surveys and delineations certified by a licensed surveyor. Contested base flood elevations are to be reviewed under the provisions of Section 4.613(C). The City will keep a record of all surveys,

delineations and any Letter of Map Amendments approved by FEMA, as revisions to the local copy of the Title 3 map. The City will submit this information to Metro for future updates of the Title 3 map. A field survey shall consists of the following:

- 1. 100-year floodplain boundaries, and the base flood elevation as measured from mean sea level (MSL).
- 2. The 1996 flood boundaries, and the base flood elevation as measured from mean sea level (MSL).
- 3. Floodway boundaries as determined by datum available from any of the following agencies: FEMA, the US Army Corps of Engineers (Corps), Metro, or the Oregon Division of State Lands (DSL).
- 4. The name, location and dimensions of affected streams or rivers and the bankfull flow or the two-year storm level;
- 5. The area comprising the vegetation corridor as established by Sections 4.316 Width of Vegetation Corridor and 4.317 Method for Determining Vegetation Corridors.
- 6. Wetlands that are determined significant by the Oregon Division of State Lands or have the following characteristics. All wetland determinations made prior to development must be reviewed and acknowledged by DSL prior to issuance of City permits. The characteristics shall be determined by a qualified scientists.
  - a. The wetland is fed by surface flows, sheet flows or precipitation, and has evidence of flooding during the growing season, and at least 60 percent of the area is vegetation, and is over one-half acre in size; or the wetland qualifies as having "intact water quality function" under the 1996 Oregon Freshwater Wetland Assessment Methodology; or
  - b. The wetland is in the Flood Management Area, and has evidence of flooding during the growing season, and is five acres or more in size, and has a restricted outlet or no outlet, or the wetland qualifies as having "intact hydrologic control function" under the 1996 Oregon Freshwater Wetland Assessment Methodology; or

- c. The wetland or a portion of the wetland is within a horizontal distance of less than one-fourth mile from a water body which meets the Department of Environmental Quality definition of "water quality limited water body" in OAR Chapter 340, Division 41 (1996).
- C. Warning and disclaimer of liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damage. This ordinance shall not create liability on the part of the City of Troutdale, any officer or employee thereof, or the Federal Insurance Administration, for any damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.
- 4.613 Interpretation of Flood Insurance Rate Map (FIRM) Boundaries and Edge of Bankfull Flow or Two-Year Storm Level.
  - A. The Director shall make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). In the interpretation and application of this Chapter, all provisions shall be:
    - 1. Considered as minimum requirements; and,
    - 2. Judged by established historical facts of flooding as known by, or made known to the governing body, and,
    - 3. Deemed neither to limit nor repeal any other powers granted under State statutes; and
    - 4. Defined in Section 1.040.
  - B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 4.612, the City of Troutdale may obtain, review, and reasonably utilize any base flood elevation and floodway data available from the developer or property owner, a federal, state or other source, in order to manage development within the Flood Management Area.

## 4.600 FLOOD MANAGEMENT AREA

C. Contested Boundaries. A person contesting the location of the boundary has the opportunity to submit a Letter of Map Amendment (LOMA) directly to the Federal Emergency Management Agency (FEMA) to change the FIRM mapping of their property. If a land use application is submitted before a LOMA is approved by FEMA, the application will be processed under the standards of this Chapter.

### 4.614 Uses Within the Floodplain but Outside the Floodway, Wetlands.

- A. Prohibited Uses
  - 1. Any prohibited use in the underlying zoning district.
  - 2. Excavation, fill, vegetation removal without an approved land use permit.
  - 3. Expansion of legal nonconforming uses.
  - 4. Outside storage of hazardous materials as defined by DEQ.
- B. Permitted Uses
  - 1. Any use permitted in the underlying zoning district subject to the standards for development outlined in Section 4.617. Exception: No new land divisions will be approved for properties exclusively within the Flood Management Area.
  - 2. Open space and trails, walkways and bike paths as designated by the Troutdale Parks Plan, or as approved with a land use application and in compliance with Section 4.315(D) of this Code.
  - 3. Removal of refuse and unauthorized fill.
  - 4. Removal of nuisance or invasive plant species, and/or the restoration of approved plant species on the Metro Native Plant List kept on file at the Community Development Department.
  - 5. Removal of dead or dying trees that are an imminent danger to public safety as determined by a certified arborist or the equivalent.
  - 6. Construction of new public roadways and public utilities necessary to support permitted development within and outside the Flood Management Area,

subject to the standards of Section 4.617 and the construction standards on file in the Public Works Department.

- 7. New culverts, stream crossings, and transportation projects may be permitted if designed as balanced cut and fill projects or designed to not significantly raise the design flood elevation and in compliance with the standards of Section 4.617. Such projects shall be designed to minimize the area of fill in Flood Management Areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.
- 8. Excavation and fill required for the construction of detention facilities or structures, and other facilities such as levees specifically designed to reduce or mitigate flood impacts. Levees shall not be used to create vacant buildable lands.
- 9. Emergency bank stabilization necessitating immediate action during a flood event to prevent the loss of an existing structure, or to repair a bank damaged during a natural flooding event.
- 10. Routine repair and maintenance of existing structures (conforming and nonconforming uses), streets, driveways, utilities, accessory uses and other existing development on the site (including landscaped yards, decks, patios, boat ramps, etc.) if the development existed prior to the effective date of these standards.
- 11. Rehabilitation or replacement of a structure that is damaged or destroyed to any extent, whether it is partially or fully within the Flood Management Area, in compliance with Section 4.619 <u>Prescribed Conditions</u>, of this Chapter. Note: Any structure or use deliberately removed or demolished may not be restored, replaced or rebuilt, except in compliance with all applicable provisions of the Troutdale Development Code, federal, state and county regulations.

### 4.615 Uses Within the Floodway and Wetlands.

- A. Prohibited Uses Within the Floodway and Wetlands. Unless specifically permitted under this Section, the following uses are prohibited within floodways and wetlands.
  - 1. Man-made structures.

FLMA

- 2. Vegetation removal, fill or excavation.
- 3. Private road construction.
- 4. Alterations and relocations of the water courses of Arata, Salmon or Beaver Creeks, the Sandy and Columbia Rivers, or the water course of any unnamed perennial or intermittent stream for private use, are prohibited, except as provided for in Sections 4.615(B)(13) and 4.617(S) of this Chapter.
- 5. Fill of wetlands without *both* an approved land use application and an approved Joint Fill Permit issued by the Oregon Division of State Lands and US Army Corps of Engineers.
- 6. Storage of uncontained hazardous materials as defined by DEQ.
- 7. Expansion of nonconforming uses.
- B. Permitted Uses Within the Floodway and Wetlands. The following uses are permitted subject to review under the standards for development of Section 4.617.
  - 1. Open space and trails, walkways and bike paths, as designated by the Troutdale Parks Plan, or as approved with a land use application.
  - 2. Removal of refuse and unauthorized fill.
  - 3. Removal of nuisance or invasive plant species, and/or the restoration of approved plant species on the Metro Native Plant List kept on file at the Community Development Department.
  - 4. Removal of dead or dying trees that are an imminent danger to public safety as determined by a certified arborist or the equivalent.
  - 5. Routine repair and maintenance of existing structures (conforming and nonconforming uses), streets, driveways, utilities, accessory uses and other existing development on the site (including landscaped yards, decks, patios, boat ramps, etc.) if the development existed prior to the effective date of these standards.

- 6. Construction, expansion and/or maintenance of public roadways and public utility facilities necessary to support permitted development.
- 7. Maintenance of existing private roadways and utilities to serve existing development.
- 8. Excavation and fill required for the construction of detention facilities or structures and other facilities such as levees specifically designed to reduce or mitigate flood impacts. Levees shall not be used to create vacant buildable lands.
- 9. New culverts, stream crossings, and transportation projects necessary to implement the City of Troutdale <u>Transportation System Plan</u> or other development permitted under this Chapter, and meeting the specifications of Oregon Department of Fish and Wildlife (ODFW) construction standards.
- 10. Permanent bank stabilization necessary to preserve an existing structure. Exception: Bank stabilization is not permitted for development on a vacant lot of record.
- 11. Emergency temporary bank stabilization necessitating immediate action during a flood event to prevent the loss of an existing structure in compliance with the standards set forth in Section 4.617.
- 12. Fill of wetlands is permitted only when processed concurrently with a land use application for site and design review, land division, a planned development application, or a conditional use. A Joint Fill permit may be applied for prior to application for a land use permit. However, if a Joint Fill permit is approved by the Oregon Division of State Lands and the US Army Corps of Engineers prior to applying for the land use application, in no instance may fill proceed until the final decision for the land use application has been made by the City.
- 13. Alteration of watercourses to accommodate public projects administered by the Sandy Drainage Improvement company, or its successor, or the City of Troutdale and in compliance with Section 4.617(S) of this Chapter.
- 4.616 <u>Permit Required</u>: A permit is required for development within the Flood Management Area.
  - A. Level of Review:

TO COUNCIL OCT24FLMA.WPD

8

- 1. A Type I Site and Design Review is required for the following:
  - a. Removal of non-native plants and planting of approved native plant species.
  - b. Construction of a single family dwelling, including the placement of a manufactured home. An elevation certificate and the information required in Section 4.616(B)(2) shall be submitted with the construction plans. Single family dwellings and manufactured homes shall be built in compliance with the applicable development standards in Section 4.617 of this Code.
  - c. Construction of an accessory structure as defined in Section 5.010.
  - d. Grading or fill activity less than 50 cubic yards outside of the floodway or wetlands.
- 2. A Type II Site and Design Review shall be processed for all other permitted or excepted uses requiring only a Type II SDR in the underlying zoning district, or as listed in this Chapter.
- 3. A Type III Site and Design Review shall be processed for uses requiring a Type III review in the underlying zoning district, and for all special variances requested from the standards of this Chapter.
- 4. A Type IV Site and Design Review shall be processed for any proposed alteration of a water course of any perennial or intermittent streams.
- B. Submission Requirements. A Type II, III or IV Site and Design Review application for development within the Flood Management Area shall include the following:
  - 1. Topographic Survey. Where development, excavation or vegetation removal is proposed within the Flood Management Area, an on-the-ground topographical survey shall be prepared for the entire site. The survey shall show trees or tree clusters, existing roads, utilities and structures, with 2 foot contours. The survey maps shall be provided by the property owner or applicant for development approval.

- 2. Base Flood Elevation Data: Where base flood elevation data is provided through the City of Troutdale Flood Insurance Study, or by other means as permitted in this Chapter, the developer shall obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, including the placement of a manufactured home, and whether or not the structure contains a basement. This information shall be provided on a City Flood Hazard Permit form.
  - a. For all new or substantially improved elevated or floodproofed structures, verify and record the actual elevation (in relation to mean sea level).
  - b. Review of Building Permits. Where elevation data is not available either though the Flood Insurance Study or from another authoritative source as authorized in Section 4.613(B), 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 the highest adjacent grade in these zones may result in higher insurance rates.
- 3. Hydrology and Soils Report. This report shall include information on the hydrological activities of the site, the effect of hydrologic conditions on the proposed development, and any hydrological or erosion hazards. This report shall also include characteristics of the soils on the site, suitability for development, its carrying capacity, and erosion or slumping characteristics that might present a hazard to life and property, or adversely affect the use or stability of a public facility or utility. Finally, this report shall include information on the nature, distribution and strength of existing soils; the adequacy of the site for development purposes; and an assessment of grading procedures required to impose the minimum disturbance to the natural state. The report shall be prepared by a professional engineer registered in Oregon.
- 4. Grading Plan. The grading plan shall be specific to a proposed physical structure or use and shall include information on terrain (two-foot intervals of property), drainage, direction of drainage flow, location of proposed structures and existing structures which may be affected by the proposed grading operations, water quality facilities, post-grading and finished contours

or elevations, including all cut and fill slopes and proposed drainage channels. Project designs including but not limited to locations of surface and subsurface devices, walls, dams, sediment basins, storage reservoirs, and other protective devices shall form part of the submission. The grading plan shall also include a construction phase erosion control plan and a schedule of operations and shall be prepared by a professional engineer registered in Oregon.

- 5. Vegetation Report. This report shall consist of a survey of existing vegetation, and whether it is native or introduced, and how it will be altered by the proposed development. Measures for enhancement of the site, including revegetation with approved plant species, will be clearly stated, as well as methods for immediate and long-term stabilization of slopes and control of soil erosion. The vegetation report shall be prepared by a landscape architect, landscape designer, botanist or arborist with specific knowledge of approved plant species, planting and maintenance methods, survival rates, and their ability to control erosion and sedimentation. The contractor for installation and maintenance will be responsible for replacing any approved plant species that do not survive the first two years after planting.
- 4.617 <u>Development Standards</u>. The Land Use Application shall establish through the use of narrative, site plans, and professional reports the following:
  - A. New development, including additions or alterations to existing structures in the flood management area may be allowed provided that:
    - 1. The applicant shall demonstrate that no reasonably practicable alternative design or method of development exists that would have a lesser impact on the flood management area than the one proposed.
    - 2. If no such reasonably practicable alternative design or method of development exists, the project shall be designed in compliance with applicable sections of Subsection F, so that the impacts on the flood management area are the least necessary and the plans shall include restoration, replacement or rehabilitation of the vegetation corridor or wetlands associated with the flood management area.
    - 3. The applicant shall provide mitigation to ensure that impacts to the functions and values of the vegetation corridor and integrity of the slope will be mitigated or restored to the extent practicable.

- B. A professional engineer registered in Oregon must certify that the development will not result in any increase in flood levels during the occurrence of the base flood discharge, and that water quality will not be adversely affected.
- C. As applicable, the development must be authorized by the Oregon Division of State Lands, the US Army Corps of Engineers, the Oregon Department of Fish and Wildlife, and the Federal Emergency Management Agency. The applicant shall obtain and submit a copy of all required State and Federal permits for any proposed development in the Flood Management Area, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 USC 1334.
- D. Unless otherwise authorized under the provisions of this Chapter, the development shall comply with the underlying zoning district dimensional standards and the minimum vegetation corridor as established in Sections 4.316 <u>Width of Vegetation</u> <u>Corridor and 4.317 Method for Determining Vegetation Corridors.</u>
- E. Protect the water quality resource and Flood Management Area functions and values from uncontained areas of hazardous materials as defined by DEQ water quality standards.
- F. Limit impervious surface areas in the Flood Management Area.
  - 1. The impervious surface of the development may not exceed 30% of the floodplain area, provided the standards of this Code are met. Exception: Public roads necessary to serve the transportation needs of the City, may exceed the 30% of the Flood Management Area.
  - 2. Clustering of houses and multi-family units, zero lot line developments and/or modifications to setbacks may be approved under the Type II procedure in order to accommodate the density permitted within the underlying zoning district and not exceed the impervious surface limitation of 30% of the Flood Management Area on the site.
  - 3. The Director may grant an administrative variance of up to 50% of any dimensional standard in the underlying zoning district where necessary to avoid construction within the Flood Management Area.
- G. Maintain flood storage capacity. Balanced cut and fill is required for permitted development in the Flood Management Area. Excavation and fill shall be performed

in a manner to maintain or increase flood storage and conveyance capacity and not increase design flood elevations.

- 1. All fill placed at or below the design flood elevation in the Flood Management Area shall be balanced with at least an equal amount of soil material removal. The development shall be designed to minimize development within the Flood Management Area and amount of fill necessary.
- 2. Excavation shall not be counted as compensating for fill if such areas will be filled with water in non-storm winter conditions.
- 3. The cumulative effect of any proposed development shall not increase the water surface elevation of the base flood. On-site flood storage capacity shall not decrease as a result of development, vegetation removal or excavation. A "No Rise" certification is required for any permitted development within the floodway pursuant to Section 60.3(d)(3) of the National Flood Insurance Program (NFIP).
  - a. The "no-rise" supporting data and a copy of the engineering certification must be submitted to and reviewed by the City prior to approval of development, and the data shall be submitted with the Site and Design Review application.
  - b. The "no-rise" certification and supporting technical data must stipulate NO impact on the 100-year flood elevations, floodway elevations, or floodway widths at the new cross-sections and at all existing cross-sections anywhere in the model.
  - c. A sample "no-rise" certification is available in the Community Development Department.
- H. Residential Construction.
  - 1. Elevate structures. The minimum finished floor elevations for all new or substantially improved residential structures in the Flood Management Area shall be at least one foot above the design flood elevation, as confirmed by FEMA and/or the US Army Corps of Engineers. A Federal Emergency Management Agency National Flood Insurance Program Elevation Certificate shall be submitted with the construction plans. The elevation certificate shall include the elevation of the lowest floor (including basement). The elevation

certificate shall be certified by a land surveyor, engineer, or architect who is authorized by state or local law to certify elevation information for construction within special flood hazard areas. The City shall maintain the elevation certificates for public inspection.

- 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 flood waters. 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 devices provided that they permit the automatic entry and exit of flood waters.
- I. Manufactured Homes. All manufactured homes to be placed within, or substantially improved within Zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is a minimum of one foot above the base flood elevation and shall be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section 4.617(P) Anchoring.
- J. Recreational Vehicle Parks. Approved Recreational Vehicle Parks (RV Parks) built within Special Flood Hazard area Zones A1-30, AH, and AE as shown on the Community FIRM panel, are subject to the following standards:
  - 1. The RV is built on a single chassis;
  - 2. The RV is 400 square feet or less in area when measured at the largest horizontal projection.
  - 3. The RV is self-propelled or permanently towable by a light duty truck;

- 4. The RV is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
- 5. The RV is fully licensed and ready for highway use (street legal), on its wheels or jacking system, and attached to the site only by quick disconnect type utilities (water, electricity, sewer) and security devices, and having no permanent attached additions.
- 6. The occupancy of the RV site is for fewer than 180 consecutive days.
- 7. The RV "pads" shall be paved with asphaltic concrete or comparable and have a special water quality facility for the collection of the storm water from the site.
- 8. The RV "pads" shall be wide enough to accommodate a trailer parked next to the towing vehicle or be long enough to accommodate both towing vehicle and trailer.
- 9. National Flood Insurance Program (NFIP) regulations [reference Code of Federal Regulations (CFR) 60.3(c)(14)(iii)] require that if a recreational vehicle does <u>not</u> meet the criteria of this subsection, then the vehicle must, "meet the elevation and anchoring requirements for manufactured homes," pursuant to Sections 4.616(B)(2) and 4.617(I) of this Chapter.
- K. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, including basement, elevated to no less than one foot above the base flood elevation; or together with attendant utility and sanitary facilities, shall:
  - 1. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water. A floodproofing certificate shall be filed with the City of Troutdale following the form and procedure established by the Federal Emergency Management Agency.
  - 2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy, in accordance with standards established by the Federal Emergency Management Agency and the National Flood Insurance Program.

- 3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of National Flood Insurance Program regulations [CFR 60.3(c)(4) and 60.3(c)(5)] based on their development and/or review of the structural design, specifications, and plans. Such certifications shall be provided to the City of Troutdale.
- 4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in Section 4.617(H)(2).
- 5. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building floodproofed to the base flood elevation will be rated as one foot below).
- L. Remove temporary fills. Temporary fills permitted during construction shall be removed prior to issuance of a Certificate of Occupancy or release of any bond issued for the development.
- M. Preserve and/or restore the vegetation corridor within the disturbed areas, and retain the existing tree canopy as established in Sections 4.316 <u>Width of Vegetation</u> <u>Corridor</u> and 4.317 <u>Method for Determining Vegetation Corridors</u>. An enhancement plan for disturbed areas shall be prepared and implemented to stabilize slopes to prevent landslides on slopes and sedimentation of water features. This plan shall provide for the replanting and maintenance of approved plant species designed to achieve pre-disturbance conditions.
- N. Maintain or reduce stream temperatures.
- O. Minimize erosive velocities, nutrient and pollutant loading into water. Use filtering, infiltration and natural water purification for storm water runoff in compliance with the Erosion Control and Water Quality standards of Chapter 5.600. The applicant's engineering plans shall certify that runoff and sedimentation from the site will comply with the standards of Chapter 5.600 of this Code.
- P. Anchoring. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- Q. 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. No construction materials or methods may be used within the floodplain that would impair or damage water quality or native vegetation.
- 5. All development shall have adequate drainage provided to reduce exposure to flood damage and maintain water quality.
- R. Utilities and Roads.
  - 1. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable, and comply with ODFW construction standards.
  - 2. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
  - 3. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and
  - 4. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
  - 5. Utility and road placement shall occur outside the floodway and vegetation corridor unless the utility or road is necessary to serve permitted development, and there is no reasonable alternative.
  - 6. Water quality facilities, shall comply with the siting and construction standards of Chapter 5.800 of this Code.

- S. For any alterations or relocations of a water course, the City shall obtain the required authorization and permits from the Oregon Department of Land Conservation and Development, Oregon Division of State Lands, the US Army Corp of Engineers, the Oregon Department of Fish and Wildlife Service, the Federal Emergency Management Agency, and other affected agencies, as applicable. The flood carrying capacity of the altered or relocated watercourse shall not be diminished and shall be maintained.
- T. Subdivision Proposals. If a variance is approved to allow subdivision of land that is exclusively within the Flood Management Area, in addition to compliance with the underlying zoning district standards and this Chapter, the construction of the subdivision shall be subject to the following additional criteria.
  - 1. All subdivision proposals shall be consistent with the need to minimize flood damage.
  - 2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
  - 3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.
  - 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).

## 4.618 Flood Management Area Variance Procedures.

- A. The Director may grant an administrative variance of up to 50% of any dimensional standard in the underlying zoning district where necessary to avoid construction within the Flood Management Area.
- B. The Planning Commission shall hear and decide requests for variances from the dimensional standards of this Chapter and the maximum impervious surface area in accordance with the City's participation in the National Flood Insurance Program.

**FLMA** 

- C. Variances shall only be issued upon consideration of the purpose of this Chapter. The Planning Commission may attach such conditions to the granting of variances as it deems necessary to further the purpose of this Chapter.
- D. As a participant in the National Flood Insurance Program, the City is not authorized to grant a variance from the requirement to elevate or floodproof structures in accordance with state and federal regulations, whichever is most restrictive.
- E. The City cannot grant a variance from the special flood hazard designation assigned by the Federal Emergency Management Agency (FEMA) to a site. However, a property owner may request a Letter of Map Amendment (LOMA), a Letter of Map Revision (LOMR) or a Letter of Map Change (LOMC) from FEMA.
- F. In approving variance applications, the Planning Commission shall consider all technical evaluations, all relevant factors, and standards specified in other Sections of this Chapter, and other Chapters of this Code, and make affirmative findings, either with or without conditions, for each of the following criteria:
  - 1. A showing of good and sufficient cause, that the need for the variance is not of the applicant's making and will not result in a use of the site that is not otherwise permitted in the underlying zoning district.
  - 2. A determination that failure to grant the variance would result in exceptional hardship to the applicant and is the minimum necessary to grant relief. The test being that there is no possible relief from the current tax rate on an undeveloped lot currently being zoned for the denied use, and that the owner has attempted to sell the property within the past 6 months to conservation agencies or the City for the taxable value of the property, as determined by the Multnomah County Tax Assessor's Office.
  - 3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws and ordinances.
  - 4. The safety of access to the property in times of flood for ordinary and emergency vehicles.

## 4.619 Prescribed Conditions for the Rehabilitation or Replacement of Pre-existing Structures.

- A. The structure was in existence within the District prior to November 24, 2000.
- B. The use is allowed in the underlying zoning district at the time the application is made to rehabilitate or replace the structure.
- C. A permit is applied for in accordance with Section 4.616(A) Level of Review, of this chapter.
- D. The rehabilitation or replacement is rebuilt on the same footprint of the original structure and does not increase the impervious area within the 100-year floodplain.
- E. The rehabilitation or replacement satisfies the standards of this Chapter, Section 4.617 Development Standards, Subsections B, C, G, and H, I or K as applicable, and L, M, N, O, P, Q, and R; the applicable standards of Chapter 5.600 Erosion Control and Chapter 5.800 Stormwater Management of this Code, and federal, state or county standards.

- 5.610 <u>Purpose</u>. The purposes of the erosion control standards are: 1) To prevent erosion and restrict the discharge of sediments and other contaminants from entering protected water features, public streets, and the sanitary sewer system during construction, and 2) to require permanent erosion prevention measures, including, but not limited to restoration or enhancement of vegetation corridors (pursuant to Sections 4.316 <u>Width of Vegetation Corridor</u> and 4.317 <u>Proposed Method for Determining Vegetation Corridors</u> of this Code) between the development and the protected water feature.
- 5.611 <u>Applicability</u>. An erosion control and mitigation plan shall be required and approved by the Director or the Director's representative, under any of the following circumstances.
  - A. Prior to final plat approval for any subdivision, in accordance with Chapter 7.100 of this Code.
  - B. Prior to Site Orientation and Design Review, in accordance with Chapter 8 of this Code.
  - C. Prior to any activity listed herein, or approval of any building permit, site development application, flood hazard permit, grading permit or fill permit.
    - 1. Prior to disturbance of any vegetation, mining, dredging, paving, filling, or grading that disturbs an area of 1,000 square feet or greater outside of the Vegetation Corridor and Slope District or Flood Hazard Area.
    - 2. Prior to any vegetation removal, mining, dredging, paving, filling, or grading on sites within the Vegetation Corridor and Slope District or Flood Hazard Area.
  - D. Upon a finding that visible or measurable erosion has entered, or is likely to enter, the public storm and surface water system.
  - E. Exemptions:
    - 1. Farming activities as defined in ORS 30.930 and farm uses as defined in ORS 215.203, (except construction or reconstruction of buildings on the site associated with farm practices) are exempt from the provisions of this

Chapter, provided that the specific land area has been cultivated within the last three years.

- 2. Construction of residential accessory structures that do not require a building permit that are outside of the Vegetation Corridor and Slope District and the Flood Hazard Area.
- 5.612 <u>Reference Authority</u>. The current edition of the <u>Technical Guidance Handbook</u>, <u>Erosion</u> <u>Prevention and Sediment Control Plans</u>, published by City of Portland / Unified Sewerage Agency of Washington County (hereinafter called The Handbook) shall be the primary guide for the City of Troutdale in establishing and reviewing erosion control techniques, methods and requirements.
- 5.613 Erosion and Sediment Control Plan Submission Requirements.
  - A. A site development permit application shall be completed and submitted with the erosion and sediment control plan, and with other applicable land use application forms or building permit forms prior to the start of construction.
  - B. Schedule of Installation. A schedule of planned erosion control and revegetation measures shall be provided, which sets forth the progress of construction activities, and mitigating erosion control measures. The developer shall call for an inspection, to certify that erosion control measures are installed in accordance with the approved erosion control plan.

#### 5.614 Approval Standards for Erosion Control.

- A. Plans shall show compliance with the standards of The Handbook and applicable standards of this Code.
- B. Responsibility and Records.
  - 1. The applicant shall be the responsible person, or shall designate a specific person, herein identified as the developer, to be responsible for carrying out the Erosion and Sediment Control Plan.
  - 2. The City shall maintain records of erosion and sediment control plans in the Community Development Department.
- C. The duration of exposure of soils shall be kept to a minimum during construction. Exposed soils shall be covered by mulch, use of erosion blankets, sheeting, temporary

seeding or other suitable material following grading or construction, until soils are stabilized and new vegetation has been established. During the rainy season (November 1 through April 30), soils shall not be exposed for more than seven consecutive (7) days. All disturbed land areas which will remain unworked for 21 days or more during construction, shall be mulched, seeded, or tarped.

- D. Control runoff: Ensure that where erosion cannot be completely avoided, the sediment control measures will be adequate to prevent erosion from entering onto public rights-of-way, or into the public stormwater system, surface water system, or protected water feature.
  - 1. During construction, runoff from the site shall be controlled, and sediment resulting from soil disturbance shall be retained on-site. Temporary diversions, sediment basins, barriers, check dams, or other methods shall be provided as necessary to hold sediment and runoff.
  - 2. All such temporary diversions that are in a protected water feature, shall be approved by the Oregon Division of State Lands, US Army Corps of Engineers and/or the Oregon Department of Fish and Wildlife prior to submission of the plan to the City for approval, as applicable.
- E. Limit the rate of discharge: In no case shall soil erosion and sediment transport from the site exceed the rate of one ton per acre per year, nor result in more than ten percent cumulative increase in natural stream turbidity, as measured relative to a control point immediately upstream of the turbidity causing activity. However, limited duration activities necessary to address an emergency or to accommodate essential dredging, construction or other legitimate activities, and that cause the standard to be exceeded may be authorized provided all practicable turbidity control techniques have been applied.
- F. Keep site clean.
  - 1. No mud, dirt, rock or other debris shall be deposited upon a public street or any part of a private or public stormwater system, surface water system. Eroded sediment shall be removed immediately from pavement surfaces, offsite areas, and from the surface water management system, including storm drainage inlets, ditches and culverts. In the event that sediment is inadvertently deposited in a wetland or stream, the developer shall immediately contact the Oregon Division of State Lands and the Oregon Department of Fish and Wildlife Service to implement remedial actions. The

Developer shall send the Community Development Director copies of correspondence between DSL, ODFW and the developer.

- 2. The removal of all sediments which are carried into the streets, or on to adjacent property, are the responsibility of the developer. The developer shall be responsible for cleaning and repairing streets, catch basins, and adjacent properties, where such properties are affected by sediments or mud. In no case shall sediments be washed into storm drains, ditches, drainageways, streams, or wetlands. (See also Chapter 12.09 of the Troutdale Municipal Code, related to public facilities.)
- G. Filter water. Water containing sediment shall not be flushed into the surface water management system, wetlands or streams without first passing through an approved sediment filtering facility or device.
  - 1. Pollutants such as fuels, lubricants, bitumens, raw sewage, and other harmful materials shall not be discharged into or near rivers, streams, or impoundments, and shall be properly stored and disposed.
  - 2. Direct discharge of storm and/or construction waters into a protected water feature, including known streams, wetlands or rivers, is prohibited unless approval is obtained from DSL, the Corps and ODFW.
  - 3. All sediment-laden water from construction operations shall be routed through stilling basins, filtered, or otherwise treated to reduce the sediment load in the receiving water body.
- H. Control Dust. Troutdale is especially susceptible to wind erosion. Therefore, the Director may require that additional dust control measures be included in the Erosion and Sediment Control Plan. Such control measures may include, but are not limited to, the following, and will be enforced depending upon the conditions of the site and weather conditions during construction:
  - 1. Sprinkle with water or apply dust palliatives to access and haul roads and other exposed dust producing areas with water.
  - 2. Establish a temporary vegetation cover or use mulch as approved by the City.
  - 3. Hydrate cut and fill surface areas.
  - 4. Cover the materials in the haul equipment.

#### EROSIONEXHIBIT4.WPD TOCOUNCILOCT24

4

- I. Storage. All erodible or toxic materials delivered to the job site shall be covered and protected from the weather and stored according to appropriate health and safety guidelines.
  - 1. Such materials shall not be exposed during storage.
  - 2. Waste material, rinsing fluids, and other such material shall be disposed of in such manner that pollution of groundwater, surface water, or air does not occur.
  - 3. In no case shall toxic materials be dumped into drainage ways or onto land.
- J. Site Enhancement. In addition to compliance with native vegetation removal and enhancement provisions of Chapters 4.300 and 4.600 of this Code, the developer shall be responsible for enhancement of the vegetation corridor adjacent to protected water features or on slopes of 25% or greater, public and private open spaces, utility easements, and on developed or undeveloped rights-of-way adjacent to and / or
   affected by the development. Submit a landscape plan showing compliance with the standards of The Handbook, and the following:
  - 1. If the vegetation existing prior to site development is non-native or invasive, it shall be replaced with native or non-invasive plant species from the Metro Native Plant List.
  - 2. Work areas on the immediate site shall be carefully identified and marked to reduce potential damage to trees and vegetation. Establish a root protection zone around all existing trees that will be preserved on the construction site, through the use of construction fencing or equivalent that clearly marks the protection zone on the site.
  - 3. Trees shall not be used as anchors for stabilizing working equipment.
  - 4. During clearing operations, trees and vegetation shall not be permitted to fall or be placed outside the work area.
  - 5. In areas designated for selective cutting or clearing, care in falling and removing trees and brush shall be taken to avoid injuring trees and shrubs to be left in place.

- 6. Stockpiling of soil, or soil mixed with vegetation, shall not be permitted on a permanent basis. Topsoil removal for development shall be stockpiled and reused on-site to the degree necessary to restore disturbed areas to their original or enhanced condition, or to assure a minimum of six inches of stable topsoil for re-vegetation. Additional soil shall be provided if necessary to support revegetation.
- 5.615 <u>Duration of Maintenance</u>. Continuous maintenance of the erosion and sediment control devices approved with the site development permit application, after development, including revegetation of all graded areas, shall be the responsibility of the developer, subsequent developers or property owners.
  - A. Inspect erosion control measures: During active construction, the developer shall inspect erosion control measures daily during rainy periods. Spot checks will be conducted by the City during construction. In all cases, the developer shall be responsible for maintenance, adjustment, repair and replacement of erosion control measures to ensure that they are functioning properly without interruption.
  - B. Written Records. When required by the Director, the developer shall maintain written records of all site inspections of erosion control measures which shall be provided to the Director upon request.
  - C. Call for Inspection. In addition, the developer shall call for City inspection, prior to the foundation inspection for any building, to certify that erosion control measures are installed in accordance with the erosion control plan.
  - D. Erosion control measures shall be maintained during construction and for one year after development is completed. The Director may, upon a finding that soils are completely stabilized, reduce this period.
- 5.616 <u>Correction of Ineffective Measures</u>. If the facilities and techniques approved in the erosion control plan are not effective or sufficient to meet the purpose of this Chapter, based on an on-site inspection, the Director may require a revised plan.
  - A. Upon receiving notice, the developer shall immediately install interim erosion and sediment control measures as specified in The Handbook and call within 24 hours for a reinspection.
  - B. The revised erosion control plan shall be provided within 5 working days if written notification by the Director was required.

EC

- C. The developer shall implement fully the revised plan within 5 working days of approval by the Director.
- 5.617 <u>Penalties</u>. In addition to those penalties available under Troutdale Development Code, Chapter 17.110 <u>Abatement and Penalty</u>, the Director may enforce the following additional penalties to this Chapter.
  - A. Issue a stop work order where erosion control measures are not being properly maintained or are not functioning properly due to faulty installation or neglect.
  - B. Refuse to accept any further permit applications until erosion control measures have been installed properly and maintained in accordance with this Chapter.
  - C. The owner of the property from which the erosion occurs, together with any person or parties who cause such erosion, shall be responsible for mitigating the impacts of the erosion and for preventing future erosion.
  - D. The City Attorney may institute appropriate action in any court to enjoin development of a site or building project which is in violation of this Chapter, or to require conformance with this Chapter.
- 5.618 Security. Except as provided for in subsection B of this Section, after an Erosion Control Plan is approved by the Director and prior to the issuance of a grading or building permit, the applicant shall provide a performance bond or other financial guarantee in the amount of 120% of the value of the erosion control measures necessary to stabilize the site and maintain water quality.
  - A. Duration. The performance bond shall be in effect for a period of at least one year after the erosion control measures are installed. The performance bond or other financial guarantee shall be released when the Director determines that the erosion control measures are operating adequately. All or a portion of the performance bond or financial guarantee may be withheld by the City for a period of up to five years beyond the one year maintenance period, if it has been determined by the Director that the erosion control measures are not operating adequately.
  - B. Exemptions. Single family and two family residential residences on individual lots shall be exempt from posting a performance bond or other financial guarantee.
  - C. Conflict. Due to the immediate threat to water quality posed by failure to comply with the strict provisions of the erosion control measures required under this Chapter.

the provisions of this Section shall supersede the more general provisions of Troutdale Development Code Sections 17.050 Bond or Cash Deposit; 17.060 Noncompliance with Provisions Under Obligation; and 17.070 Adjusting Bond or Deposit for Future Obligation, where conflicts exist.

EROSIONEXHIBIT4.WPD TOCOUNCILOCT24

8.050 C. Filing Plans. A complete application with final drawings for site and design review shall be submitted to the Planning Division. An application shall not be deemed complete unless all information requested is provided and fees paid.

Upon completion of a technical review by staff and approval by the Site and Design Review Committee, the site plan and landscape plan shall act as the official approved development plan, and any construction, addition, or extension of the buildings or structures to occur on that site shall be in strict compliance with the approved site plan.

If the property owner finds it necessary to vary from the approved landscape plan, an application shall be filed with the Planning Division requesting an amendment to the approved plan.

Plans shall include all items listed below:

- 1. A project summary shall accompany the application when deemed necessary to describe any special circumstances which may require approval of variances or special exceptions by the Planning Commission. In addition, plans shall include the following, which may be combined, as appropriate onto one or more drawings:
- 2. The site analysis will provide the basis for the proper design relationship of the proposed development to the site, adjacent properties, existing man-made improvements (including but not limited to buildings and roads), and hillsides (slopes), streams and rivers and other natural features. A site analysis shall include:
  - a. A fully dimensional vicinity map, drawn to scale, showing property lines of the lot being developed, all right-of-ways (roads and railroad tracks), and property lines of lots within 250 feet of the site.
  - b. A fully dimensional site map, drawn to scale, showing all existing structures, proposed structures and phasing lines.
  - c. A site survey map showing the following features of the development area and within 50 feet of the site is required: roads, pedestrian and bicycle ways, and utility access, easements (recorded or unrecorded), fences, any features which cross property boundaries

FILE: CHAPTER8EXHIBIT5.WPD TO COUNCIL OCT 24

1

**ADOPTED OCT 24, 2000** 

Draft Title 3 changes for TDC 8.050 Procedures and Submission Requirements

d. Depict the natural hazard areas, including potential flood or high ground water, landslides, erosion, drainageways and weak foundation soils, all seasonal and perennial streams, creeks or rivers, marshes or wetland areas, underground springs, wildlife habitat areas, wooded areas and surface features such as earth mounds, large rock outcroppings.

e. Show drainage patterns of the site and adjacent lands for a minimum distance of 250 feet around the perimeter of the site.

f. Wetlands shall be delineated by a scientist following established State of Oregon procedures, as administered by the Oregon Division of State Lands.

g. A contour map based upon an actual field survey. The map shall be at two-foot intervals and delineated by a licensed surveyor if the site is mapped on the Title 3 Water Quality and Flood Management Area Map, or has slopes in excess of 25%, or is on the FIRM. All other sites may be mapped at 5 or 10 foot intervals. The contour map shall include a delineation of the vegetation corridor and slopes based upon Sections 4.316 <u>Width of Vegetation Corridor</u> and 4.317 <u>Proposed</u> <u>Method for Determining Vegetation Corridors</u> of this Code.

h. The location of trees over six inches in caliper diameter as measured at four and a half (4½) feet from the ground; wooded areas, significant clumps or groves of trees, and specimen conifers, oaks and other large deciduous trees.

i. In order to establish the pre-development vegetation coverings on sites mapped on Metro's Title 3 Water Quality Resource Areas and Flood Management Overlay District map, submit either a complete vegetation inventory of the site or a current aerial photograph of the site if the site is mapped on the Title 3 map.

j. A hydrology and soils report, for any site subject to review under Chapter 4.300 <u>Vegetation Corridor and Slope District</u>, and Chapter 4.600 <u>Flood Management Area</u>. Draft Title 3 changes for TDC 8.050 Procedures and Submission Requirements

3. Site Plan. The site plan is to show how the site will look after development. The site plan is not the construction plans, which will be submitted following Site and Design Review or Conditional Use approvals, but may contain some of the elements of a construction plan. Structural calculations for buildings are not reviewed at this stage. The site plan shall be fully dimensional and drawn to scale and shall include the following:

a. The footprint of existing and new buildings; the layout of the parking lot and loading areas; the points of ingress and egress.

- b. Boundary lines and dimensions for the property and all proposed lot lines. Future building in phased developments shall be indicated.
- c. A map key and identification information, including names and addresses of project designers.
- d. Natural features which will be utilized as part of the required landscaping.
- e. Location, dimensions and names of all existing or platted streets or other public ways, easements, railroad rights-of-way, on or adjacent to the property.
- f. The location of at least one protected temporary benchmark, the nearest survey pin of record, and spot elevations when needed.
- g. Location and dimensions of all existing structures, improvements or utilities, noting structures to be removed.
- h. Community Resources.
- i. Approximate location and size of storm water retention or detention facilities and storm drains.
- j. Location, exterior dimensions, and calculations of square footage of the footprint of all proposed structures, and impervious surfaces.
- k. Relation to transit, location and dimension of parking and loading areas, pedestrian and bicycle circulation, and related access ways. Individual parking spaces shall be shown.

3

ADOPTED OCT 24, 2000

# Draft Title 3 changes for TDC 8.050 Procedures and Submission Requirements

- 1. Orientation of structures showing windows and doors, entrances and exits.
- m. Outdoor lighting. The fixtures shall be constructed or fully shielded in such a manner that all light emitted by the luminaire, either directly from the lamp or indirectly from the luminaire, is projected below the horizontal plane through the luminaire's lowest light emitting part.
- n. Service areas for waste disposal, recycling, loading and delivery.
- o. Location of mail boxes.

#### FILE: CHAPTER8EXHIBIT5. WPD TO COUNCIL OCT 24

# **EXHIBIT 6**

## 5.800 STORMWATER MANAGEMENT

#### STMA

5.810 <u>Purpose</u>: The purpose of the stormwater management standards is to prevent the degradation of primary or secondary protected water features. Developers will be required to install a water quality treatment facility prior to releasing stormwater into natural drainage ways for purposes of minimizing water quality impacts on the Sandy and Columbia Rivers and their tributaries and watersheds, including but not limited to Arata Creek, Beaver Creek, Salmon Creek, and wetlands.

## 5.820 Reference Authority.

- A. The current edition of the *Stormwater Management Manual*, City of Portland Environmental Services and addendums adopted by the Troutdale Public Works Department, is adopted into this ordinance by reference and shall be the guide for requirements, design standards for the water quality facilities. Where conflict exists between this ordinance and any of these documents, the more restrictive shall apply.
- B. The current edition of the City of Troutdale's, *Construction Standards for Public Works Facilities* is adopted into this ordinance by reference with respect to the design of catch basins in parking lots and private and public streets. Where conflict exists between this ordinance and any of these documents, the more restrictive shall apply.
- C. Other publications or maps adopted by reference to implement the standards of this Chapter are: The Metro Title 3 *Water Quality and Flood Management Area* map. The Federal Emergency Management Agency's *Flood Insurance Rate Map* (FIRM). The National Wetlands Inventory Map.
- D. Wetland determinations acknowledged by the Oregon Division of State Lands, that were submitted with previous land use applications, and on record in the Community Development Department.
- E. The "North Troutdale Storm Drainage Master Plan," prepared by David J. Newton Associates, Inc., March 1990. This plan includes Arata and Salmon Creeks.
- F. The "South Troutdale Storm Drainage Master Plan," prepared by KCM and Associated Firms, May 1996. This plan includes Beaver Creek and the Sandy River.
- 5.830 <u>Applicability</u>. The Director shall require water quality treatment or detention facilities for stormwater for developments which qualify under any of the following:

1

# 5.800 STORMWATER MANAGEMENT

- A. The site is within or draining to the vegetation corridor established in Sections 4.316 <u>Width of Vegetation Corridor</u> and 4.317 <u>Proposed Method for Determining</u> <u>Vegetation Corridors</u> of this Code, within or draining to the Flood Management Area established in Chapter 4.600 of this Code, or is adjacent to and or draining to a protected water feature.
- B. The development occurs on *natural* slopes of 25% or greater.
- C. The site is contiguous to either a City-owned water well or an active private well.
- D. The development involves paved parking areas, fuel storage or dispensing areas, vehicle wash areas, outside storage areas, or vehicle maintenance or dismantling areas.
- 5.840 <u>Design Standards</u>. Water quality facilities for stormwater management shall be designed and constructed, and sited on the site by the developer to ensure that stormwater runoff is treated on site prior to discharge into the public storm system, dry-well, street gutters, or any protected water feature. The design shall comply with the current edition of the *Stormwater Management Manual*, City of Portland Environmental Service and addendums adopted by the Troutdale Public Works Department.
  - A. Water quality and flow control facilities to be utilized are outlined in the *Stormwater Management Manual*, City of Portland Environmental Services, or as approved by the City of Troutdale. Although a bioswale, detention or retention pond may begin to take on characteristics of a wetland resource, the facility does not become a resource or protected water feature unless it is part of a wetland mitigation plan.
  - B. Placement of water quality facilities shall be limited as follows:
    - 1. The water quality facility shall not be placed on land with slopes of 15% or greater, or within the vegetation corridor as established in Sections 4.316 <u>Width of Vegetation Corridor</u> and 4.317 <u>Proposed Method for Determining</u> <u>Vegetation Corridors</u> of this Code, or within a 25-year flood area, or within a wetland, or within a defined floodway area. Exception: A water quality facility may encroach a maximum of 25 feet into the required vegetation corridor associated with a protected water feature if there is no reasonable alternative location on the site. A three-part alternative analysis of Section 4.315A(1 through 3) shall be required to determine if there is no reasonable alternative location on the site, and provide for mitigation.

2.

- The water quality facility may be constructed within the 100 year floodplain, provided that the area is (a) outside the area covered by the 25-year flood event, and (b) the water quality facility effectively and exclusively uses native plant species, and that the facility complies with all federal standards pertaining to the National Flood Insurance Program.
- 3. Where it is determined that a more efficient and effective regional site exists within the sub-basin, the water quality facility may be constructed off-site to accommodate anticipated development at the intensity and density of the underlying zoning districts within that sub-basin.
- 4. The design of the water quality facility shall be certified by a professional engineer registered in Oregon that it meets or exceeds the current standards of the *Stormwater Management Manual*, City of Portland Environmental Services.
- 5. The plan shall specifically consider source control of pollution, runoff treatment, streambank erosion control, wetland impacts, impacts on water quality sensitive areas, and off-site analysis and mitigation
- 6. A long-term (20-year) operation and maintenance plan shall be required. This plan shall document how and by whom the water quality facility will be maintained.
- 7. If the water quality facility is dedicated to the City, maintenance of the facility shall be the responsibility of the developer for at least two years after the facility has been constructed and approved by the City. If the facility is not dedicated to the City, then it shall be the continuing responsibility of the developer.
- 8. In all cases, runoff from impervious areas used for repair, cleaning, refueling, storing or servicing of vehicles and machinery shall be treated on site to remove conventional pollutants such as, but not limited to: oil, grease, TSS, metals, and fecal coliform.
- 9. An oil/water separator may be used in conjunction with other treatment devices, but may not be used solely.
- 5.850 <u>Security</u>. The applicant shall provide a performance bond or other financial guarantee in the amount of 120% of the value of the water quality facility prior to construction or grading.

- A. Duration. The performance bond shall be in effect for a period of at least two years from completion of the facility, and shall be released at the end of that two-year period provided that the Director determines that the water quality facility is performing as intended. All or a portion of the performance bond or other financial guarantee retained by the City may be withheld for a period of up to five years beyond the two year maintenance period if it has been determined by the Director that the water quality facility is not performing as intended.
- B. Conflict. Due to the immediate threat to water quality posed by failure to maintain a stormwater quality facility required under this Chapter, the provisions of this Chapter shall supersede the more general provisions of Troutdale Development Code Sections 17.050 Bond or Cash Deposit; 17.060 Noncompliance with Provisions Under Obligation; and 17.070 Adjusting Bond or Deposit for Future Obligation, where conflicts exist.
- 5.860 <u>Penalties</u>. Each violation of any provision of this Chapter, or any failure to carry out the conditions of any approval granted pursuant to this Chapter, shall be unlawful and a civil infraction subject to the enforcement provisions of Troutdale Development Code, Section 17.110, Abatement and Penalty.
  - A. Additional Penalties. In addition to those penalties available under Troutdale Development Code, Section 17.110 Abatement and Penalty, the Director may refuse to accept any development permit application from the developer or applicant for other land use development; revoke or suspend any development; deny occupancy of the subject property until the stormwater quality facility has been installed properly and maintained in accordance with this Chapter; or recommend to the Mayor denial of a business license or renewal of a business license of the developer or applicant.
  - B. The owner of the water quality facility or a Home Owner's Association or other entity bound to the deed restrictions pertaining to the water quality facility, shall be responsible for mitigating the impacts of the erosion and for preventing future erosion.
  - C. Upon request of the City Administrator or at the direction of the City Council, the City Attorney may institute appropriate action in any court to enjoin development of a site or building project which is in violation of this Chapter, or to require conformance with this Chapter.

4