



## Environmental Protection Guide

### Protecting the Environment

The City of West Linn places a high value on the conservation of natural resources. Construction activities without proper erosion and sediment control protection can contribute large amounts of sediment and other pollutants to streams, rivers, wetlands and ponds. Construction can also be harmful to trees, including the trunk, canopy and roots. This guide helps to explain the environmental requirements mandated by the City during the construction process.

### Construction Sequence

Erosion Control and Tree Protection must be installed, inspected and approved prior to any site work. Upon approval, a notice (green tag for erosion and yellow for tree protection) will be posted by the site inspector(s). It must be visible at all times, until approval of the final inspection.

### Fees

Fees will be according to the current City of West Linn fee schedule.

### Following the Law

West Linn Code prohibits the discharge of sediment-laden water and other construction-related pollutants to storm sewers or waterways. Obtain all Federal and State permits if required for your site. The City of West Linn's Municipal Tree Ordinance and Tree Technical Manual are applicable to all building sites.

### Enforcement

If the site falls into disrepair or otherwise fails to meet erosion control and/or tree protection codes and standards, a notice of non-compliance, stop work order, or fines may be issued with corrective action required. Violation of tree protection standards may also include fines and/or mitigation.

Upon receipt of an erosion control permit the developer enters into an agreement with the city stating that in the event an emergency occurs and is not repaired within 24 hours of the time that the city notifies the developer, the city may hire a contractor or employ city staff to repair the erosion problem and bill the developer 125% of the cost to the city.

### Tree Protection Notes and Practices

- All trees 6" diameter breast height (DBH) or greater are subject to tree protection measures.
- Trees that are within the otherwise approved building footprint will not require a separate tree removal permit. The City may require shifting of building footprints to save significant trees.
- Tree Protection Zone (TPZ) will normally be measured at ½ foot radius per caliper inch for any given tree. The City may require a greater area as deemed necessary.
- All trees to be preserved shall be protected with six foot high chain link fences along the length of the TPZ. Fences are to be mounted on two inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing.
- All specifications, rules, regulations and penalties as defined in the City's Tree Ordinance and Tree Technical Manual shall apply.

### Common Pollutants at Construction Sites

- sediment from grading operations and bare soil
- concrete wash from tools and trucks
- sanitary waste and pathogens from porta-potties
- debris from discarded building materials
- oil and grease from equipment and vehicles
- paint, chemicals and solvents
- litter

## **Preventing Erosion**

### **Evaluate the Site**

The diagram on the next sheet illustrates the key points to protecting individual building sites. Every building site is unique and should be evaluated for potential erosion and sediment loss. It is not difficult to predict where soil will erode. Rain falling and water flowing over bare ground will create erosion. Understanding the drainage on the site and where storm water runoff will flow is critical in planning for erosion control.

### **Revegetate the Site**

Prevent erosion on individual lots with ground cover. The soils are not left bare during home construction. Sites are covered with straw mulch and/or vegetation to prevent erosion from occurring.

## **Effective Individual Lot Best Management Practices (BMP)**

### **Temporary Mulching & Seeding**

- Establish vegetation to protect soils from erosion and keep sites clean.
- Protect exposed soils from erosion until vegetation is established.
- Use straw or wood mulch, compost, hydro seeding, or Rolled Erosion Control Products (RECPs) when temporary seeding is not practical. Mulch can be utilized in any weather at any time.

### **Sediment Control Practices**

- Install straw wattles (fiber rolls), sediment fences, compost socks, or other sediment controls on the contour to prevent concentrated flow and protect perimeters.

### **Construction Entrances & Tracking**

- As vehicles leave construction sites, sediment may be tracked onto adjacent roads. Those pollutants can get washed into storm drains, are a nuisance to drivers and vehicles, and can cause accidents.
- Stabilize driveway with a rock base over geo-textile fabric to prevent tracking onto roadways.
- Immediately clean up tracking in streets with brooms, shovels, or a professional street sweeper. Do not use water to clean pavement.

### **Inlet Protection**

- Protect drainage inlets from receiving polluted storm water through the use of inlet protection devices. Inlet protection should be maintained on a regular basis. If not maintained you may be responsible for cleaning the downstream catch-basin(s) prior to approval of the final inspection.
- Connect roof-drain downspouts, foundation drains, wall-drains, or other storm drains to an approved collection system immediately after installation.
- Do not pump sediment laden water off-site. I.E. Water that accumulates in foundations.

### **Concrete Washout**

- Use a designated concrete washout area to avoid wash water from concrete tools or trucks from entering storm drains.
- Maintain washout area and dispose of concrete waste on a regular basis.

### **Waste Containment**

- Keep your site clean. Pick up construction waste and litter each day. Potential pollutants should be stored so they do not become sources of storm water contamination.

### **Soil Stockpile Placement and Protection**

- Place stockpiled soil away from critical areas such as streams, drainage ways, and storm drain inlets. Temporarily seed and mulch, or cover stockpiles immediately to protect against erosion. Use sediment control around the base of stockpiled soil.

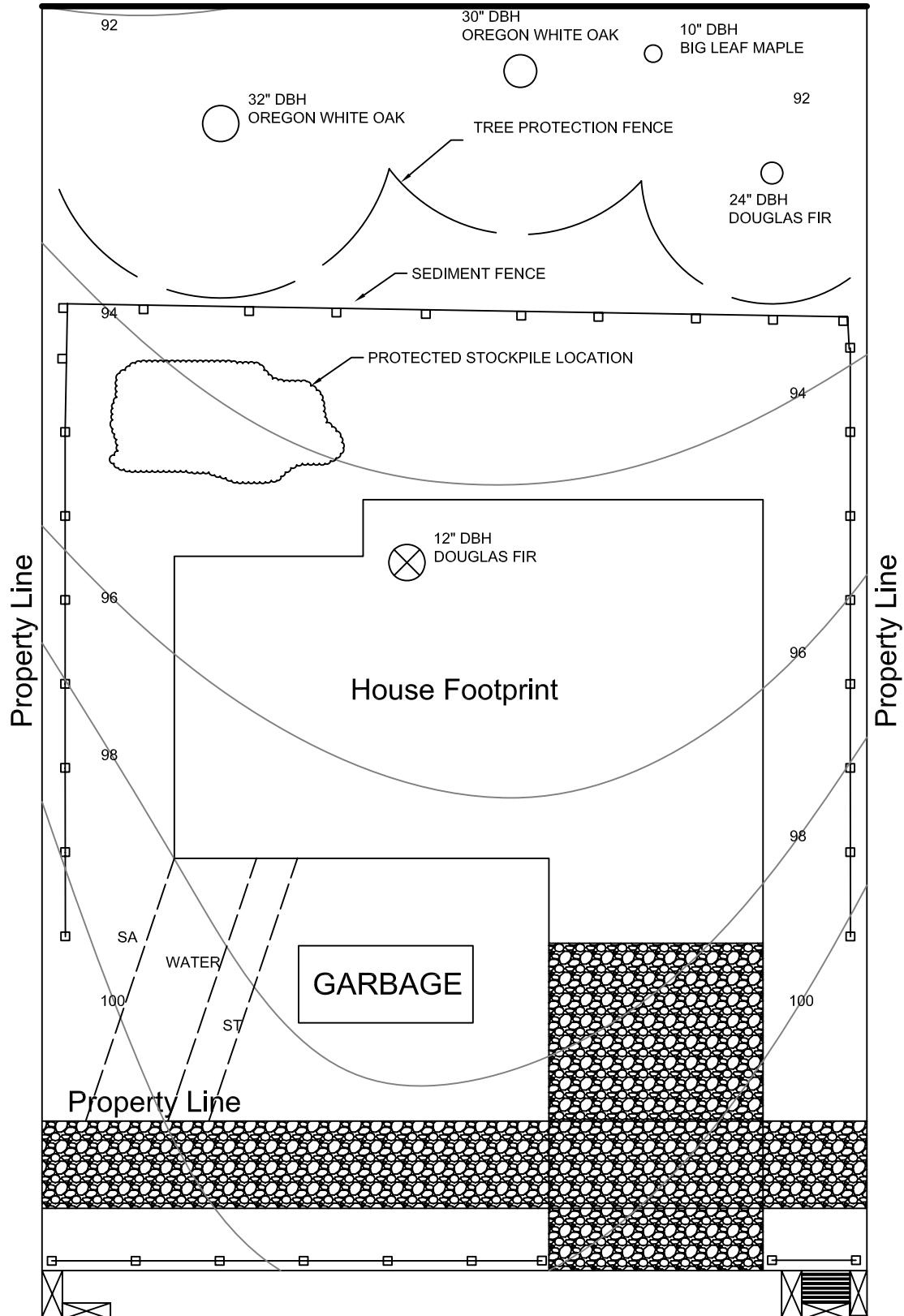
### **Training & Inspections**

- At minimum the site steward must inspect a site weekly, and after each storm event greater than 1/2 inch. Document all inspections and keep this documentation on-site and updated. The permittee must be able to provide this information to the City upon request. Maintain BMPs on a regular basis and replace as necessary.
- Train and educate construction crews to better understand the effects of storm water pollution from construction projects and learn ways to prevent or minimize pollution on the job.

Please refer to the Clackamas County Erosion and Sediment Control Manual for more information. It is available at <http://www.co.clackamas.or.us/wes/documents/designmanual.htm>.

# ENVIRONMENTAL PROTECTION

## SAMPLE SITE PLAN



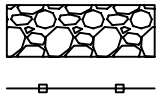
Storage of construction materials is not allowed in the right of way

Sediment tracking onto the street is not allowed

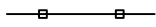
Site Plan scale shall be not less than 1 inch = 10 ft,  
unless other scale is approved by the City

See back of sheet for site plan notes

# SITE PLAN NOTES



Entrance should be 20 feet in length 2-3" clean crushed rock. After excavating soil from the area, apply 6-12" layer over entire entrance. Use geotextile under the stone if place on unfirm soil. Install gravel sidewalk subgrade. If sidewalks are not required install sediment fence at front.



Show and install sediment fence on downhill grade from exposed areas.



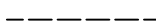
Show and install inlet protection on all catch basins and at downhill side of lot at curblin.



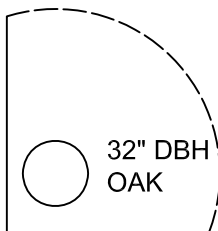
Waste Containment shall be shown on plan to indicate where contruction waste will be contained for both liquids and solids.



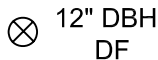
Show contours for entire site on 2' intervals, when slopes exceed 15% use 5' intervals, unless otherwise approved.



Show and label location of all utilities at the site.



Show all trees on site. Include:  
Location of trunk, species, diameter (DBH) for all trees over 6", and tree protection fence location. Tree protection fence will normally be installed at a 1/2 ft radius per caliper inch, for any given tree.



Trees to be removed shall be marked with an X.  
Trees within approved building footprint may be removed without a seperate permit. All other trees shall require a tree removal permit.



Show location of stockpile areas. Identify erosion protection measures.

## GENERAL NOTES

Site plan scale must be no less than 1 inch = 10 fT, unless another scale is approved by the City.

Show location of utility easements and/or tree protection areas. Wetlands and waterways must also be located on plan.

Cover all exposed areas that have potential for erosion with seed and straw, mulch, or compost. Other alternatives include, barkdust or plastic. Steep slopes may require additional best management practices to prevent erosion. *May 1 through September 30*, the duration of soil exposure shall be kept to a maximum of 21 days All disturbed soil that remains exposed 21 days or more during construction shall be treated with an erosion control cover, following grading or construction, until soils are revegetated or otherwise stabilized. *October 1 through April 30*, duration of soil exposure shall be kept to a maximum of 7 days.

The site must be stabilized in order to gain final inspection approval, which means 100% ground cover on all disturbed areas. Additional long-term erosion control measures may be required on steep slopes. All erosion BMP's must also be removed.