

DPD

Director's Rule 10-2011

Applicant: City of Seattle Department of Planning & Development	Page: 1 of 16	Supersedes: DR 6-2009
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Subject: Clarifying Landscape Standards, including the Seattle Green Factor	Code and Section Reference: Ch. 23, Land Use Code Ch. 25, Environmentally Protection and Historic Preservation (SEPA)	
	Type of Rule: Review Criteria	
	Ordinance Authority: SMC 3.06.040	
Index: Land Use Code/Technical Standards and Procedural Requirements	Approved (Signature on file) Diane M. Sugimura, Director	Date 6/21/11

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BACKGROUND AND PURPOSE

This rule provides information relevant to projects that trigger landscape requirements, including projects subject to the Seattle Green Factor. It supplements and interprets landscape requirements in the City's Land Use Code, Seattle Municipal Code Title 23, and in the City's State Environmental Policy Act (SEPA) regulations, SMC Ch. 25.05. In the event of a conflict between the requirements of the Seattle Municipal Code and this rule, code requirements prevail.

Landscape improvements required pursuant to the City's Land Use Code and SEPA accomplish multiple goals: mitigating visual impacts of a proposed development project, buffering incompatible uses, providing screening and privacy, reducing headlight and reflective glare, and creating a pleasant urban environment. Landscape features also provide environmental benefits, reducing stormwater runoff, improving air and water quality, decreasing the urban heat island effect, improving energy efficiency, and providing wildlife habitat.

RULE

A. LANDSCAPE IMPROVEMENT STANDARDS

1. Soil quality, depth, and volume

Healthy soils improve plant survival, reduce irrigation demand, and minimize the need for fertilizer and other chemical applications. All new planting areas or areas disturbed during construction must be amended following standards in the Seattle Stormwater Manual: 3" of compost must be incorporated to a soil depth of 8", and 2-4" of mulch must be applied to planting beds. For more detail, see Section 4.4.1 of DPD Director's Rule 17-2009.

Container plantings must provide adequate room for the selected plant species. For shrubs, ground covers, or perennials, this means a minimum of 12" soil depth. Trees in containers must have a minimum of 30" soil depth and a minimum soil volume as follows:

Minimum soil volume for trees

Tree size category¹	Planting area soil volume²	Planting surface area³	Example dimensions³
Small trees	110 ft ³	44 sq ft	5' x 9'
Small/med trees	225 ft ³	90 sq ft	5' x 18'
Med/large trees	375 ft ³	150 sq ft	6' x 25'
Large trees	525 ft ³	210 sq ft	7' x 30'

1) Tree size categories are explained in greater detail in subsection A.4.b of this rule.
2) Note that these are minimum soil volume requirements. Trees will be healthier, bigger, and longer-lived if greater soil volume is provided.
3) Assumes 30" soil depth. Smaller surface areas can achieve the same soil volume if deeper soil profiles are provided, or if adjacent paved surfaces are installed over structural soil or similar technologies.

Applicants should be aware of the special design issues involved with planting in containers or over structures: structural weight, drainage, soil mix, irrigation and maintenance, and appropriate plant selection. Irrigation and drainage are required for all container plantings.

2. Plant selection and drought toleranceXXX

Plants shall be selected and sited to ensure compatibility with site conditions. Plant selection shall also take into account the specific purposes of the plantings in their particular locations (e.g., visual screening vs. physical buffering of incompatible uses etc.). Plants identified by King County as “weeds of concern” or “noxious weeds” (including English ivy), are prohibited for new plantings, and must be controlled in the process of installing and maintaining required landscaping (lists are available at <http://dnr.metrokc.gov/wlr/LANDS/weeds/laws.htm>).

In required landscape areas, at least 25% of all plantings must be drought-tolerant. This requirement can be calculated across an entire lot; that is, 25% of each individual planting area need not be drought-tolerant, but the plantings as a whole must achieve 25% drought tolerance. Drought-tolerant plants are species that can thrive without supplemental watering after establishment. A list of drought-tolerant plants is available from Department of Planning and Development (DPD) at <http://www.seattle.gov/dpd/Permits/GreenFactor/>. Other drought-tolerant plants can be used, provided that the applicant provides two references showing that the plant is both drought-tolerant and appropriate for Seattle's climate.

Drought-tolerant plants must be separated from non-drought-tolerant plants by setting them at least two feet apart, using a physical barrier, or separating the irrigation system's grouping and circuiting. DPD's Director has the authority to reduce the requirement for use of drought-tolerant plants when a site is unsuitable to support drought-tolerant vegetation, such as a poorly drained or marshy site, upon documentation from the applicant of the site conditions. Establishment of all plants, including drought-tolerant species, requires supplemental water for at least two growing seasons.

3. Landscape elements in the right-of-way

Installation, pruning, or removal of any landscape element in the right-of-way, including street trees, requires a Seattle Department of Transportation (SDOT) permit and must adhere to the SDOT's Right-of-Way Improvement Manual. In the event of a conflict between SDOT requirements and this rule, the SDOT requirements prevail. SDOT approval is required for landscape elements in the right-of-way to meet the Green Factor; if SDOT does not approve right-of-way landscape elements, Green Factor credits must be obtained through other means. SDOT requires the preservation and protection of existing trees in the street right-of-way unless otherwise permitted based on inspection and approval.

4. Trees

- a. *Preservation.* Preservation of certain trees is required by the tree protection code, SMC Chapter 25.11. For more information, see Client Assistance Memo (CAM) 242, “Tree Protection regulations in Seattle.”

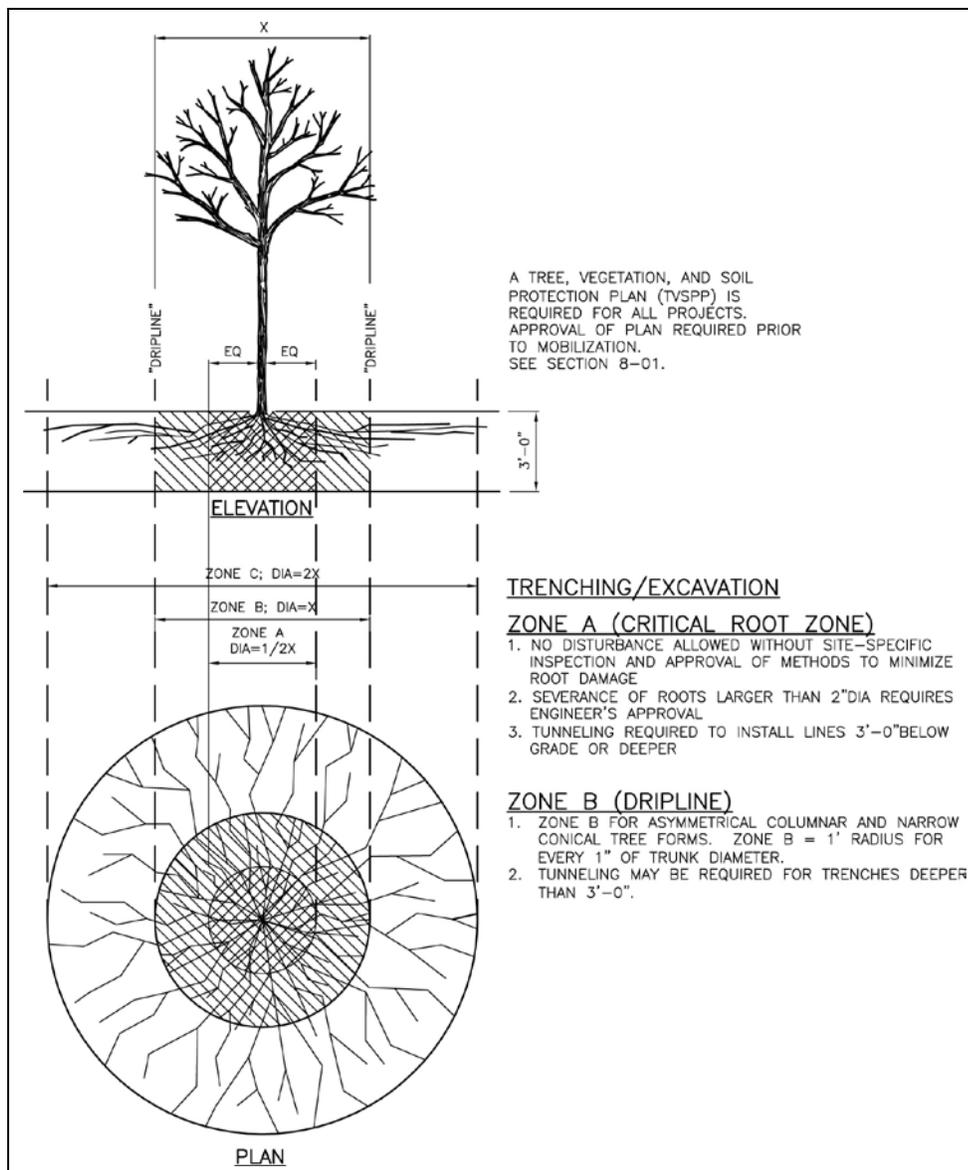
Throughout the Land Use Code, preservation of healthy trees is worth as much or more landscaping credit as planting new trees (specifics vary by zone). All trees in the right-of-way must be preserved unless permitted for removal by SDOT. Whether in the right-of-way or on private property, trees with a trunk diameter of 6 inches or more at breast height (4.5 feet above grade) are eligible for Green Factor “tree preservation” credit.

Roots within the dripline area of preserved trees shall be protected pursuant to City of Seattle 2011 Standard Plans 132a, 132b, and 133, or future revised versions; these protection areas shall be identified on site plans. The protection area may be reduced if

approved by the Director according to a plan prepared by a tree care professional. Such reduction shall be limited to one-third of the area within the outer half of the area within the drip line (Zone B in Figure 1). In no case shall the reduction occur within the critical root zone (Zone A in Figure 1). In addition, the Director may establish conditions for protecting the tree during construction within the feeder root zone (Zone C in Figure 1). For the purpose of this rule, tree care professional shall have a minimum of 3 years experience in tree evaluation and shall have worked directly with the protection of trees during construction, as well as having one of the following credentials:

- Society of American Foresters (SAF) certified forester;
- American Society of Consulting Arborists (ASCA) registered consulting arborist;
- Washington State registered landscape architect (RLA); or
- International Society of Arborists (ISA) certified arborist.

Figure 1: Detail from City of Seattle 2011 Standard Plan #133



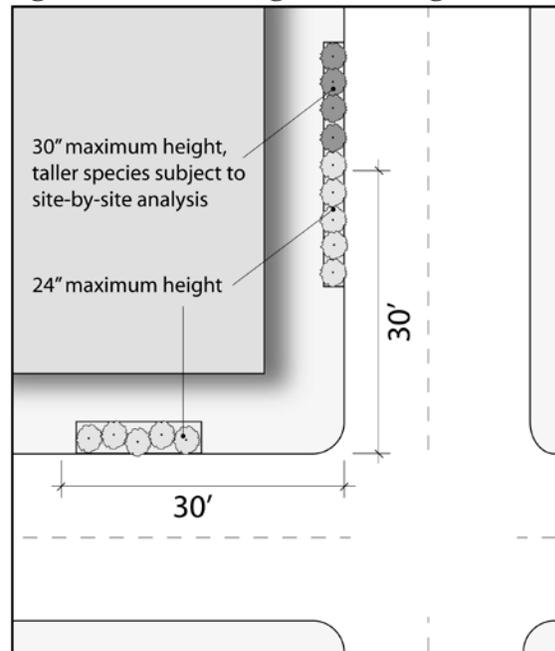
- b. *Tree selection.* Trees shall have a mature height of at least 15 feet for small trees, 25 feet for medium/small trees, 30 feet for medium/large trees and 40 feet for large trees. A list of suggested tree species is available at www.seattle.gov/dpd/Permits/GreenFactor/GreenFactorTools. Note that Seattle Green Factor scoring gives a bonus credit for native trees, and the Stormwater Code gives more credit to evergreen species than deciduous ones.
- c. *Size at the time of installation.* On private property, deciduous trees with one trunk must be at least 1.5 inches in diameter, measured 6 inches above the ground; multi-stemmed deciduous trees must have at least 3 stems and be at least 6 feet tall; and evergreen trees must be at least 4 feet in height. Because street trees face more difficult growing conditions, SDOT requires larger trees at time of installation: in the right-of-way, deciduous trees with one trunk must be 2 to 2.5 inches in caliper, measured 6 inches above the ground.
- d. *Right-of-way.* Trees can only be planted in the right-of-way after a permit has been issued by SDOT. Existing street trees must be retained and protected unless permitted for removal by SDOT.
- e. *Identification.* The species identification nursery tag shall remain on at least two trees per species until the final Certificate of Occupancy has been issued. After issuance, the owner must remove the tags to prevent damage to the trees.
- f. *Spacing.* To maximize tree canopy and reduce competition between street trees, SDOT approves layout of trees based on tree selection, generally according to the following spacing: 20-25 feet between small trees, 25-30 feet between small/medium trees, 30-35 feet between medium/large trees, and 35-40 feet between large trees.

5. Shrubs and large perennials

Shrubs that are required for the purpose of screening must be evergreen and at least 30 inches high when planted. All other required shrubs must be at least 9 inches high when planted. Shrubs should be spaced at least 18" apart.

SDOT limits shrub height in rights-of-way. Within 30 feet of an intersection (as measured from the edge of the curb at the street corner), plant selection in the right-of-way is limited to species with a mature height at or below 2 feet (Figure 2). For areas more than 30 feet from an intersection, shrubs are allowed up to 30 inches tall. Taller species are subject to approval on a site by site basis to ensure sight distance, pedestrian safety, and accessibility. For many species, pruning is required to comply with these standards – note in the Landscape Management Plan if applicable (see Subsection A.11 of this Rule).

Figure 2: Shrub height in the right-of-way



Within 30 feet of an intersection, SDOT limits shrub height to 24". Elsewhere in the right-of-way, they may be 30". Shrubs taller than 30" subject to review.

To earn credits as large perennials under Green Factor scoring (credit B.2 on the Green Factor score sheet), plant selections must be at least 2 feet tall at maturity, and be evergreen or have year-round structure. Otherwise, they are counted as groundcovers (credit B.1).

6. Ground covers

- a. *Description.* Ground covers include low, spreading plants typically less than 12 inches in height. While mulch does not count as landscaping under general landscaping requirements, it does count for credit on the Green Factor score sheet, provided that mulch is coarse, maintained at a depth of 3 to 4 inches, and planted with shrubs and trees with appropriate spacing. In the Green Factor, areas covered with perennials or shrubs less than 2 feet in height are awarded the same credit as areas covered with ground cover.
- b. *Spacing.* In order to accomplish complete coverage of bare soil by ground cover within three years, spacing of ground cover plants shall be as follows: plants transplanted from 4-inch containers shall be spaced no more than 12 inches apart on center, and plants transplanted from 1-gallon containers shall be spaced no more than 24 inches apart on center. Different spacing of particular species to accomplish complete coverage within three years is acceptable if documentation is submitted by a landscape professional, as defined in Subsection C.1 of this Rule. At maturity, ground cover is expected to extend to the drip line of coniferous trees and to within 24 inches of the trunk of broadleaf trees.

7. Protection

Trees and plants bordering driveways and parking areas shall be protected from vehicles by wheel stops, curbs or similar devices, which shall be shown on the landscape and site plans.

8. Clearance and access for maintenance

Clearance shall be provided so that plants have access to sufficient space and light, taking into account foreseeable changes on adjacent lots. All landscape improvements must be designed to allow access for the owner or owner's agent to perform the maintenance specified in the Landscape Management Plan (see Subsection A.11 of this Rule).

9. Standards for Green Factor landscape elements

The Green Factor establishes a weighted menu of landscape elements, and requires development proposals to meet a minimum score (based on zoning) by selecting features from that menu. Landscape improvements provided to meet other requirements (including Land Use Code, Stormwater Code, and environmental mitigation requirements) can count toward meeting the Green Factor score. A Green Factor score sheet and other tools are available for download at <http://www.seattle.gov/dpd/Permits/GreenFactor/> (see Attachments B and C). Green Factor code provisions encourage layering of vegetation; plants within each planting area earn credits in addition to the planting area itself, so perennials, shrubs, and trees in a planting bed will achieve a higher score than would perennials alone.

The following subsections provide standards for landscape elements particular to the Green Factor.

- a. *Bioretention facilities.* Bioretention facilities, also known as rain gardens, use carefully designed soils and plantings to manage stormwater runoff. These shallow depressions provide flow control (detention), infiltration, evapotranspiration, and water quality treatment. Bioretention planters are bioretention facilities designed with an impervious liner preventing infiltration to the surrounding soils (see Figure 3).

Green Factor applicants receive credit for the total area of all bioretention facilities meeting standards of the City of Seattle Stormwater Manual. Bioretention facilities in the right-of-way must meet the standards of the Right-of-Way Improvement Manual (<http://www.seattle.gov/transportation/rowmanual/manual/>). Bioretention facilities will be subject to review by SDOT and Seattle Public Utilities (SPU) if they are located in the right-of-way. If located on private property, they will be reviewed by DPD following SPU standards.

Note that bioretention facilities and other select Green Factor credits may also count toward meeting stormwater requirements contained in the Stormwater Code. Eligibility for stormwater credit is determined according to SMC 22.800-22.808 and associated Director's Rules. While calculations under the Stormwater Code only provide drainage credit for the bottom area of bioretention facilities, the entire area (sides and bottom) may be counted for Green Factor credit.

Figure 3: Bioretention planter

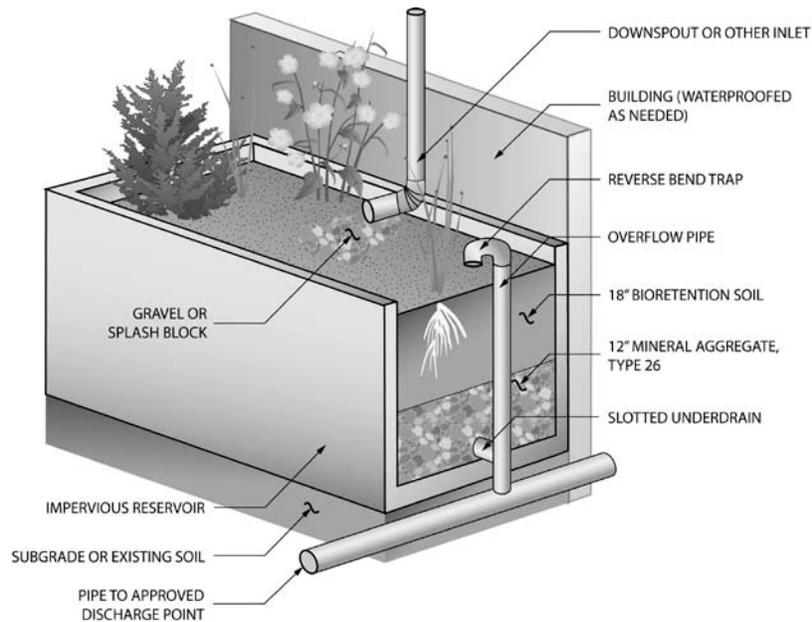


Illustration from the City of Seattle Stormwater Manual

- b. *Green roofs.* Green roofs are any plantings on top of a structure at least 10 feet above grade, including extensive green roof systems and rooftop gardens (Figure 4). Designs must include plans to provide supplemental water for a minimum of two growing seasons, and green roof specifications must be approved by a licensed architect or landscape architect. Assuming that green roofs are planted with drought-tolerant plants, they are eligible for the drought-tolerance bonus credit. When a green roof is specified in the Master Use Permit (MUP) application, it is important that the applicant has considered cost implications including engineering costs. If the green roof is removed from the design after the MUP is issued, the required minimum Green Factor score must be met through the use of other landscape elements.

Figure 4: Green roof typical design

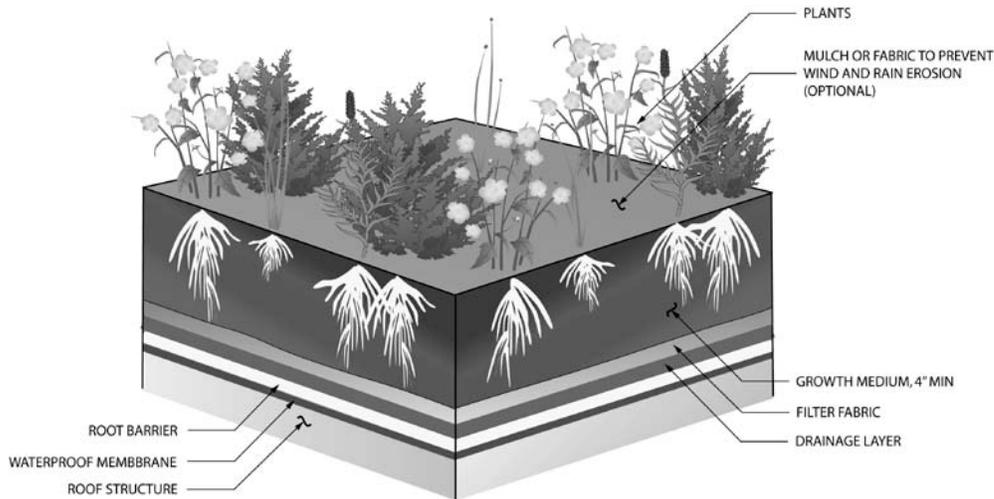


Illustration from the City of Seattle Stormwater Manual.

Since low-growing vegetation is an integral part of a functioning green roof, it has already been factored into the score for this feature. Green roof vegetation is not eligible for groundcover credits, but taller rooftop vegetation (shrubs and trees) may be counted as separate credits. If counted as a green roof, an area may not be counted in score sheet Section A (landscaped areas).

- c. *Vegetated walls.* Vegetated walls are vertical surfaces covered by plants. Vegetated walls include walls or screens with climbing vines, trailing plants, espaliered trees, or modular “green wall” planting systems. For Green Factor credit, measure the height and width of area to be covered by vegetation within five years. Maximum calculated vertical dimension must not exceed 30 feet unless the vegetated wall features built-in growth medium. Plantings must not encroach within City Light safety setbacks (see CAM 122 for details at <http://web1.seattle.gov/DPD/CAMs/CamList.aspx>).

To establish successfully, vegetated walls need soil and light like any other planting. They are only eligible for credit where they are 5 or more feet from adjacent, facing structures. When side or rear lot lines abut zero-lot-line parcels with unused development potential, vegetated walls facing the neighboring property may not be closer than 5 feet to the property line. This setback does not apply to lot lines abutting streets, alleys, or lots with structures already extending to the minimum setback line. Additionally, vines growing on trellises or walls must have at least a 1 foot wide planting strip at the base or top of the wall for rooting area and drainage.

- d. *Water features.* Water features include fountains, pools, or other constructed water amenities. To qualify for Green Factor credit, water features must use harvested rainwater for at least 50% of the annual flow, and must recirculate water to reduce water use and guard against breeding of mosquitoes. This can be demonstrated by drainage or plumbing documents indicating that rainwater is a major source of water for the water feature. To achieve Green Factor credit, the applicant is only allowed to calculate those areas of the feature that are under water at least six months of the year.

e. *Permeable paving.* Permeable pavements allow water to pass through voids in the paving material or between pavers while providing a stable, load-bearing surface. Permeable asphalt and concrete mixes have been developed to allow water infiltration. Interlocking paving units can also be used if they are designed to infiltrate through gaps. Green Factor applicants receive credit for the total area of all permeable paving meeting standards of the City of Seattle Stormwater Manual. Permeable paving in the right-of-way requires an SDOT permit.

Grass pavers are eligible for both permeable paving credit and ground cover credit if used in areas with low traffic volume, such as fire lanes or event parking. Grass pavers cannot be counted for credit in any area with anticipated traffic or parking more than 20% of the time within a given week.

f. *Structural soil systems.* Structural soil systems, including CU-Structural Soil, Silva Cells, and their performance equivalents, support pavement while avoiding subsurface compaction, allowing air and water infiltration and contributing to larger, healthier plants. For Green Factor credit, these systems must be at least 24 inches deep, under pavement, and adjacent to planting areas. Credit is calculated by the square footage of the system's footprint. Structural soil systems in the right-of-way must be approved by SDOT. As per SMC 23.86.019, permeable paving and structural soil together cannot add up to more than one third of a site's Green Factor score.

10. Standards for Green Factor bonuses

Any landscape feature that has claimed credit under the regular Green Factor categories can also count for one or more bonus credits if it meets the criteria below. Bonus credits can apply to all landscaping, including elements provided in the right-of-way.

- a. *Drought-tolerant or native plant species.* To receive bonus credit for this category, plants must be either drought-tolerant meeting the criteria established in A.2, or native to the Pacific Northwest. Native plants range from ground covers (beach strawberry, kinnikinnik, etc.) to trees (Douglas fir, hemlock, etc.). A plant list including drought-tolerant and native species is provided at www.seattle.gov/dpd/Permits/GreenFactor. Other plants are eligible for this credit, provided that the applicant provides two references showing that the plant is drought-tolerant or native – more detailed lists are available at <http://green.kingcounty.gov/GoNative/Index.aspx>. Square footage for this credit is calculated as the area covered by drought-tolerant/native ground covers and the equivalent square footage of drought-tolerant/native shrubs and trees as calculated on the Green Factor score sheet – for example, a single native shrub would count for 12 square feet.
- b. *Irrigation with harvested rainwater.* For each area claimed under this bonus, 50% of annual irrigation needs must be met through the use of harvested rainwater. This can be demonstrated by drainage or plumbing documents showing a water storage system sized according to the “Rainwater Harvesting Calculation Tool” available at www.seattle.gov/dpd/Permits/GreenFactor. Square footage for this credit is calculated as the area plumbed for irrigation with rainwater.
- c. *Landscape features visible to passersby.* To earn this credit, landscaping must be adjacent to the right-of-way or on building façades visible from the right-of-way or public open spaces. Landscaping is considered visible to the public if reasonable sight corridors allow viewing from adjacent rights-of-way or public open space. Square footage for this credit

is calculated as the area covered by visible groundcovers, green walls, and green roofs, together with the equivalent square footage of all visible shrubs and trees (as calculated on the Green Factor score sheet). For example, a single shrub would count for 12 square feet of bonus credit.

- d. *Food cultivation.* Food cultivation areas are designed for the growing of edible plants by the residents or occupants of a building. They can be planted with annual fruits and vegetables; fruit-producing perennials, shrubs, and trees; herbs; and/or nut-bearing plants. All food cultivation areas must be easily accessible to at least some residents or occupants of a building and must have a source of water that can reach all portions of the food cultivation area. Food cultivation areas in the right-of-way are subject to approval by SDOT. Square footage for this credit is calculated as the area covered by food cultivation landscaping together with the equivalent square footage of all food-producing shrubs and trees, as calculated on the Green Factor score sheet – for example, a single blueberry shrub would count for 12 square feet of bonus credit.

11. Landscape Management Plan (required for Green Factor projects only)

For each site required to comply with the Green Factor, the landscape professional (as defined in Subsection C.1 of this Rule) must prepare a Landscape Management Plan. This Landscape Management Plan shall provide direction on the care and maintenance of plantings, including soil preparation, use of compost, plant replacement, irrigation, weed and pest control, control of noxious or invasive species, and care and maintenance of water or hardscape features. The document is not submitted to DPD, but the project's landscape professional must sign the Landscape Improvement Checklist (Attachment A to this Rule) verifying that a Landscape Management Plan has been prepared and submitted to the owner or owner's agent.

A sample Landscape Management Plan is available at www.seattle.gov/dpd/Permits/GreenFactor, and additional information on best management practices and organic landscaping may be found at [www.seattle.gov/util/Services/Yard/For Landscape Professionals](http://www.seattle.gov/util/Services/Yard/For_Landscape_Professionals).

B. REQUIREMENTS FOR SPECIFIC AREAS

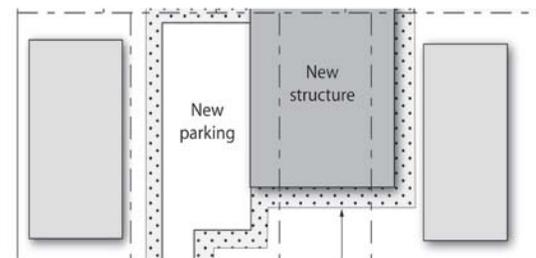
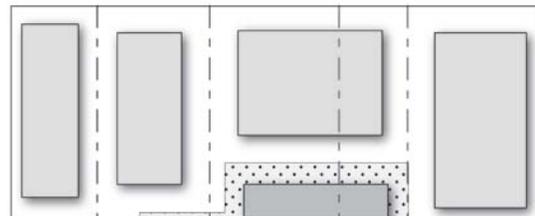
1. Outdoor amenity areas

When outdoor common areas are used to fulfill amenity area requirements, landscape elements meeting the standards of this rule count toward landscape requirements.

2. Green Factor projects on campuses or sites with combined parcels

When partial redevelopment of combined parcels triggers a Green Factor requirement, confusion may arise over how to calculate the affected area. For example, construction of a new building on an educational or medical campus may cross into parcels with existing buildings not affected by the new development. In this scenario, what should an applicant enter for "Parcel Size" on the Green Factor score sheet? Similarly, partial

Figure 5: Project impact area



For Green Factor calculations on partial redevelopment projects, the project impact area may be used in place of parcel size.

redevelopment of a large parcel containing many buildings may cause confusion.

If lot lines do not accurately delineate the new development in either of these contexts, Green Factor "parcel size" can be based on the new construction's impact area (Figure 5). Project impact area shall include new and replaced structures and impervious surfaces, as well as any areas disturbed during construction (typically a 10 foot buffer around the construction area). Staging areas must also be included in the project impact area unless they are already paved and will remain unchanged. The Director determines the boundaries of the project impact area.

C. PROCESS REQUIREMENTS

1. Landscape professional qualifications

If the proposed project (a) contains 10 or more residential units, (b) contains 20 or more new parking spaces, (c) contains 12,000 or more gross square feet of commercial or industrial space, or (d) contains more than 500 square feet of landscaping in containers, landscape areas accessible to the public must be designed by a licensed landscape architect.

All other required landscape improvements, including improvements for smaller projects not meeting any of the thresholds above, must be designed by a qualified landscape professional. This designation includes licensed landscape architects, certified professional horticulturalists, and certified landscape designers.

The landscape professional for a project must sign all landscape plans submitted with a permit application, and must sign the Landscape Improvement Checklist confirming that the project adheres to City requirements and has been installed according to plans (Attachment A).

2. Landscape plan submittal

Three sets of landscape plans must be submitted to DPD as part of MUP and/or construction applications.

The following information must be provided on all landscape plan sets:

- a. Lot dimensions and size;
- b. Location and areas of all landscaping (and dimensions where required);
- c. Location, size, and species of all plants used to meet requirements;
- d. Both common and botanical names of all plant material;
- e. If existing trees will be preserved, show location, trunk diameter at breast height (4.5 feet above grade), canopy radius drawn to scale, and species;
- f. Plans demonstrating how preserved trees and other plants will be protected during demolition and construction;
- g. For parking lots and landscaped areas adjacent to driveways: location and dimensions of wheel stops, curbs, or other devices to protect landscaping;
- h. For rooftop or container landscaping or areas to be irrigated with rainwater: a schematic irrigation and drainage plan; size and depth of plant containers (complying with standards from Subsection A.1 of this Rule for trees in containers);

- i. For street trees: width of planting strip; location of existing utility lines, poles, meters or other structures located in the planting strip; and species and diameter of the trees;
- j. Location and size of any trees to be removed (alternately, can be shown in the site plan);
- k. Specifications for soil improvement;
- l. Signature of landscape professional (defined in Subsection C.1), verifying that plantings and other landscape elements are appropriately sited and specified, and that landscape elements meet the requirements of this Director's Rule; and
- m. Total square footage of required open space/residential amenity area (if applicable), as well as provided open space/residential amenity area.

Where the Green Factor does not apply, the following must also be provided:

- a. Total square footage of landscaped area required and provided; and
- b. Number of trees, number of shrubs, and quantity of ground cover required and provided.

Where the Green Factor applies, the following must also be provided:

- a. Landscape plan with Green Factor elements called out by Green Factor category and area – may be provided as part of the landscape plan or as a separate document;
- b. Green Factor Score Sheet (Attachment B); and
- c. Green Factor Worksheet (Attachment C).

When landscape features in the right-of-way are used to meet Green Factor requirements, plans must be approved by both SDOT and DPD. For projects requiring a MUP, landscape plans for the right-of-way must receive SDOT concept approval before DPD will approve a MUP application. SDOT concept approval through design guidance is a preliminary analysis to determine whether the Green Factor elements are generally acceptable under right-of-way improvement standards (see SDOT Client Assistance Memo 2211 for more details on the Street Improvement Permit Design Guidance process). Projects requiring building permits, but not MUPs, must initiate the Street Improvement Permit or Beautification Permit application with SDOT (not just design guidance) before submitting building permit plans to DPD.

3. Substitutions and other landscape plan revisions

Revisions to the following features of a landscape plan require a plan revision and approval by DPD: reductions to the number of trees, shrubs, or groundcovers; changes to location of plantings required for screening; changes to any feature that could decrease total planting area or lower the Green Factor score below code requirements; or any other change that could fail to meet a specific permit condition. Substitution of plant species requires a plan revision and approval if the substituted plant is smaller, covers less area, or is less drought-tolerant than the species shown in the approved plans.

Revisions under any of these conditions must demonstrate that the plan continues to be consistent with applicable MUP conditions. A change in street tree species from an approved Street Improvement Permit requires a revision to that permit and approval by SDOT Urban Forestry. For general information call (206) 684-TREE [8733].

4. Installation

Except as provided below, landscape improvements must be installed in accordance with the approved plan prior to issuance of a Certificate of Occupancy.

- a. *Temporary Certificate of Occupancy.* Applicants may request an exception to this requirement and a temporary Certificate of Occupancy. In order to grant this exception, the Director must find that landscape installation is not currently possible (for example, due to drought conditions, the season or the phasing of the project). When a temporary Certificate of Occupancy is issued, all required landscaping must be installed within four months of occupancy.
- b. *Bond.* At the Director's sole discretion, the Director may grant an extension beyond four months if landscape installation will not be possible within four months of occupation, and if the applicant submits a bond or other financial instrument deemed appropriate by DPD to ensure that landscaping requirements are met. The landscape bond form can be obtained from the Construction Inspector, and shall be for an amount covering the cost of installing the required landscaping. An additional amount can be charged to cover administrative costs.

Prior to issuance of the final Certificate of Occupancy, a Landscape Improvement Checklist (Attachment A to this Rule) must be signed by the project's landscape professional (see Subsection C.1 of this Rule) and submitted to the Construction Inspector, verifying that landscape features were installed or preserved according to the permit approved by DPD.

5. Maintenance

All plantings and landscape elements required as part of a land use permit or building permit must be maintained for the life of the project. If alterations or failures reduce landscape features to a level below the minimum required planting area or Green Factor score, new features must be added to compensate. This requirement also applies to landscape improvements in the right-of-way if used to meet Green Factor requirements.

D. ENFORCEMENT

The property owner is responsible for proper landscape installation and maintenance according to approved landscape plans, including but not limited to replacement of dead or dying plants. Property owners may be subject to legal action, as with any other violation of Land Use Code, if landscape elements are not installed per approved plans or if comparable landscape features are not maintained for the life of the project (SMC 23.40.002). Enforcement is the responsibility of the Construction Inspection Division of DPD, at 206-684-8950, prior to issuance of the Certificate of Occupancy. The Code Compliance Division of DPD, at 206-615-0808, is responsible for responding to complaints about noncompliance after the Certificate of Occupancy is issued.

Landscape Improvement Checklist

I, _____, declare as follows:

I am a landscape professional, as defined in Subsection C.1 of Director's Rule 10-2011, responsible for the approved landscape plan for development located at _____, Seattle, WA, and developed pursuant to:

Master Use Application Number _____

Building Permit Number _____

The approved landscape plan meets or exceeds minimum requirements for this property (including landscaped area or Green Factor score, as required by code).

The landscape features from the approved landscaping plan for this property have been installed as approved and in a manner consistent with the standards of the Landscaping Director's Rule (10-2011). This includes soil condition as well as the number, size, and approximate location of plantings.

I understand that any of the following changes to an approved landscape plan requires a plan revision and approval by the Department of Planning and Development:

- a) A reduction to the total number of trees or other plants
- b) Changes to the location of plantings required for screening
- c) Substitution of plant species if the substituted plant is smaller or less drought-tolerant
- d) Any changes that could decrease total planting area or lower the Green Factor score below code requirements, or otherwise fail to meet specific permit conditions.

Any of the revisions described above, if applicable, have been approved by DPD. Revised permit number _____

A Street Improvement Permit has been obtained from the Seattle Department of Transportation (SDOT) for any landscaping in the right-of-way, any changes have been approved by SDOT, and all plants in the right-of-way have been planted according to SDOT standards.

A completed Landscape Management Plan has been submitted to the owner (required for Green Factor projects only).

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Signature of landscape professional

Date

NOTE: If you provide false information in this document, you will subject yourself to criminal liability. You may also subject the property owner to a penalty of \$150-\$500 per day for each day that the landscape features are out of compliance with code requirements (SMC 23.90.018).

Attachment B

The interactive Excel version of this score sheet is available at www.seattle.gov/dpd/Permits/GreenFactor.

Landscape Elements**		Totals from GF worksheet	Factor	Total
A Landscaped areas (select one of the following for each area)				
1	Landscaped areas with a soil depth of less than 24"	enter sq ft 0	0.1	-
2	Landscaped areas with a soil depth of 24" or greater	enter sq ft 0	0.6	-
3	Bioretention facilities	enter sq ft 0	1.0	-
B Plantings (credit for plants in landscaped areas from Section A)				
1	Mulch, ground covers, or other plants less than 2' tall at maturity	enter sq ft 0	0.1	-
2	Shrubs or perennials 2'+ at maturity - calculated at 12 sq ft per plant (typically planted no closer than 18" on center)	enter number of plants 0	0.3	-
3	Tree canopy for "small trees" or equivalent (canopy spread 8' to 15') - calculated at 75 sq ft per tree	enter number of plants 0	0.3	-
4	Tree canopy for "small/medium trees" or equivalent (canopy spread 16' to 20') - calculated at 150 sq ft per tree	enter number of plants 0	0.3	-
5	Tree canopy for "medium/large trees" or equivalent (canopy spread of 21' to 25') - calculated at 250 sq ft per tree	enter number of plants 0	0.4	-
6	Tree canopy for "large trees" or equivalent (canopy spread of 26' to 30') - calculated at 350 sq ft per tree	enter number of plants 0	0.4	-
7	Tree canopy for preservation of large existing trees with trunks 6"+ in diameter - calculated at 20 sq ft per inch diameter	enter inches DBH 0	0.8	-
C Green roofs				
1	Over at least 2" and less than 4" of growth medium	enter sq ft 0	0.4	-
2	Over at least 4" of growth medium	enter sq ft 0	0.7	-
D Vegetated walls				
		enter sq ft 0	0.7	-
E Approved water features				
		enter sq ft 0	0.7	-
F Permeable paving				
1	Permeable paving over at least 6" and less than 24" of soil or gravel	enter sq ft 0	0.2	-
2	Permeable paving over at least 24" of soil or gravel	enter sq ft 0	0.5	-
G Structural soil systems				
		enter sq ft 0	0.2	-
H Bonuses				
1	Drought-tolerant or native plant species	enter sq ft 0	0.1	-
2	Landscaped areas where at least 50% of annual irrigation needs are met through the use of harvested rainwater	enter sq ft 0	0.2	-
3	Landscaping visible to passersby from adjacent public right of way or public open spaces	enter sq ft 0	0.1	-
4	Landscaping in food cultivation	enter sq ft 0	0.1	-
		sub-total of sq ft =	0	
			Green Factor numerator =	-

* Do not count public rights-of-way in parcel size calculation.

** You may count landscape improvements in rights-of-way contiguous with the parcel. All landscaping on private and public property must comply with the Landscape Standards Director's Rule (DR 6-2009)

The interactive Excel version of this worksheet is available at www.seattle.gov/dpd/Permits/GreenFactor.

Revised 4/8/09		SEATTLE <i>× green factor</i> 					
Green Factor Worksheet*		Planting Area					TOTAL **
		1	2	3	<i>keep adding columns as needed</i>		
A1	<i>square feet</i>						0
A2	<i>square feet</i>						0
A3	<i>square feet</i>						0
B1	<i>square feet</i>						0
B2	<i># of plants</i>						0
B3	<i># of trees</i>						0
B4	<i># of trees</i>						0
B5	<i># of trees</i>						0
B6	<i># of trees</i>						0
B7	<i># of trees</i>						0
C1	<i>square feet</i>						0
C2	<i>square feet</i>						0
D	<i>square feet</i>						0
E	<i>square feet</i>						0
F1	<i>square feet</i>						0
F2	<i>square feet</i>						0
G	<i>square feet</i>						0
H1	<i>square feet</i>						0
H2	<i>square feet</i>						0
H3	<i>square feet</i>						0
H4	<i>square feet</i>						0

* See Green Factor score sheet for category definitions

** Enter totals on the Green Factor score sheet