



# Greenbridge & Seola Gardens Landscape Maintenance Plan



Greenbridge

KING COUNTY HOUSING AUTHORITY



Seola Gardens

December 2011

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## Acknowledgements:

King County Housing Authority  
Greenbridge Owner's Association  
Seola Gardens Owner's Association



## Intent of Landscape Maintenance Plan

Keeping the Greenbridge & Seola Gardens landscape healthy and attractive is a complex task involving many players. This maintenance plan is addressed to all players, from King County Housing Authority and Owner's Association directors and management to supervisors, staff and contract workers. Its intent is to provide a common vision for the quality and appearance of the Greenbridge & Seola Gardens landscape, a clear decision-making structure and to provide guidance on landscape maintenance practices and quality control.



## How this Plan Was Developed

KCHA engaged Johnson+Southerland, architects, landscape architects and planners, to develop a long-range landscape master plan for Greenbridge & Seola Gardens. Johnson+Southerland worked together with KCHA Greenbridge General Manager Deborah Gooden to develop overall goals for the project and conducted site visits to research current practices and challenges. Individuals representing the following organizations accompanied contributed their input and accompanied Johnson+Southerland on at least one of the site walks: KHCA and Quantum management and facilities staff, Greenbridge Owners Association, and Brickman (the current landscape maintenance contractor). Johnson+Southerland consulted as well with irrigation and soil experts of Stenn Design, planting design and soil specialists from In Harmony Landscapes, and pruning and maintenance consultant Cass Turnbull.



# Table of Contents

Four Landscape Goals _____	1
Landscape Strategy - In Brief _____	5
Roles & Responsibilities _____	7
Maintenance Basics _____	10
Trees	
Planting Beds	
Lawns	
Removing and Replacing Plants _____	16
When to remove plants	
Spacing and layout	
Plant Replacement List	
Irrigation _____	24
Pruning _____	25
Special Areas _____	31
8th Street	
Parks	
Bio-Swale	
Yards	
Maintenance Schedule _____	33
Appendix Documents _____	36
Plant removal/replacement checklist	
Monthly log	
Products & Suppliers	
Pruning Pop Quiz	
8th Street Tree Plan	



Goal #1:

## Attractive

The entire Greenbridge & Seola Gardens development needs to present itself as a beautiful vibrant neighborhood and nice place for all types of people to live. Developers and buyers of homes for sale must be attracted to invest in the neighborhood because it is such a pleasant well maintained place. This is especially important for community landscapes such as the 8th Avenue “downtown” corridor, parks, trails and rights-of-ways.

What does “attractive” mean at Greenbridge & Seola Gardens? We want a landscape that looks:

- lush and full
- natural looking (but not “out of control”)
- well-maintained (but not *too* maintained)

What we DON'T want is a landscape that looks:

- bare or sparse
- unhealthy
- clipped
- formal
- neglected
- impenetrable, dark or scary





## Goal #2: Variety

We want to see plenty of variety, particularly in the residential front yards, to help individualize homes and make the community look “residential” rather than “institutional”.

Variety in the landscape comes from having a diversity of:

- **Plant species, textures and colors.** Planting themes, or use of a limited palette of plants to provide some consistency in the landscape is desirable. However, avoid creating extensive monocultures across yards or repeating strong planting patterns that would look overly-formal.
- **Seasonal effects.** Maintain a good balance between deciduous plants that dramatize the progression of the seasons and evergreen plants so that the landscape still looks reasonably lush in the winter.
- **Plant heights.** Maintain a layered planting design including low, medium and tall plants. The landscape should evolve towards using more groundcovers and low shrubs adjacent to most pedestrian surfaces. Taller shrubs help make the landscape lush and interesting, but they need to be located further inside planting beds to ensure they have enough room.





Goal #3:

## Maintainability

Landscape maintenance and renovation efforts at Greenbridge & Seola Gardens should be focussed on practices that will result in a landscape that continues to be beautiful and diverse while requiring less and less maintenance as it matures. Landscape maintenance at Greenbridge & Seola Gardens needs to be affordable and reasonably carried out by an unskilled workforce, while not compromising other goals.

Maintenance practices should be evaluated on this basis: Does the practice help achieve the Four Landscape Goals or does it create more maintenance for the future? For instance, the practice of topping tall shrubs stimulates regrowth and creates an endless loop of maintenance, while not achieving the attractiveness sub-goals of “natural-looking, lush” etc.

This goal comes in to play particularly when plants need to be replaced, by making “right plant/right place” and “right-sized plant” choices.





Goal #4:

## Sustainability

Goals #3 and #4 are very closely related. Choices that are good for the planet often align with choices that make the landscape more maintainable.

- Manage the irrigation to reduce water use and to reduce costs.
- Choose plants that will last and won't need to be replaced.
- Maintain soil fertility by using compost and minimizing use of fertilizers.
- Maintain a lush, healthy landscape that absorbs rainwater, has plants that cool and cleanse the air, provides habitat for birds and appropriate small animals, and promotes health and well-being in humans.
- Hand weed and promote full coverage of soil by plants to minimize use of herbicides.



# Landscape Strategy - In Brief

**Clear decision-making process.** The Greenbridge & Seola Gardens Owners Association Directors are responsible for setting priorities and making decisions regarding landscape management. The Directors will call upon consultants (an arborist and horticulturist or landscape architect) for advice and the asset managers/regional manager/property manager for budgeting information. The consultants will work with the Director to stay informed of goals and concerns and talk with the maintenance supervisor to understand current landscape conditions, practices and concerns. Direction for landscape management will flow from the Director to Facility Managers and Asset Managers to the Landscape Contractor. (see Roles and Responsibilities, page 7)

**Continual observation.** The GOA/SGOA Director and asset managers/regional manager/property manager will observe the landscape to see that maintenance practices follow the goals, guidelines and that the landscape is looking good. Asset managers/regional managers will report their observations to the GOA/SGOA Director, who will maintain a list of concerns and objectives for discussion with the arborist and landscape architect.

**Long-term Right Plant/Right Place adjustments.** If plants are not thriving due to their placement, or if they require frequent pruning because they have outgrown their beds, they should be removed or moved. Because there are many plants needing replacement, this should be done in phases as funding is available. Schedule 1-2 weeks every fall for plant removal/transplanting /replacement by the maintenance crew as directed by the consulting landscape architect.

**Tree and plant replacement.** Maintain a lush landscape by always replacing any trees or plants that are removed. Replacement plants may be different than the plants removed. Replacement plants are to be appropriately selected for maximum plant health and minimal long-term maintenance. Trees should be replaced with trees, usually





in the same location, but in a different location if there are problems with the site.

**Groundcovers, perennials and annuals.** In many areas throughout Greenbridge & Seola Gardens, larger shrubs that tend to overgrow the adjacent paving will eventually be replaced by an arrangement of plants that keeps the larger-growing shrubs in the center of planters, away from the paving, and uses low-growing plants to fill in the bed closer to the paving. Hardy groundcovers are appropriate in all areas. In high-profile areas such as 8th Street, perennials and annuals that may require a slightly higher level of maintenance and may be used.

**Adjustments to irrigation.** The GOA/SGOA Director will call upon an irrigation auditor. The adjustments resulting from an irrigation audit may save the organization many thousands of dollars in water per year.

**Appropriate pruning practices.** Require all workers who will be pruning shrubs and groundcovers to have training in selective pruning from an approved program and to have familiarity with the goals for pruning in this document. Tree pruning will be carried out exclusively by, or under the supervision of, the consulting arborist.

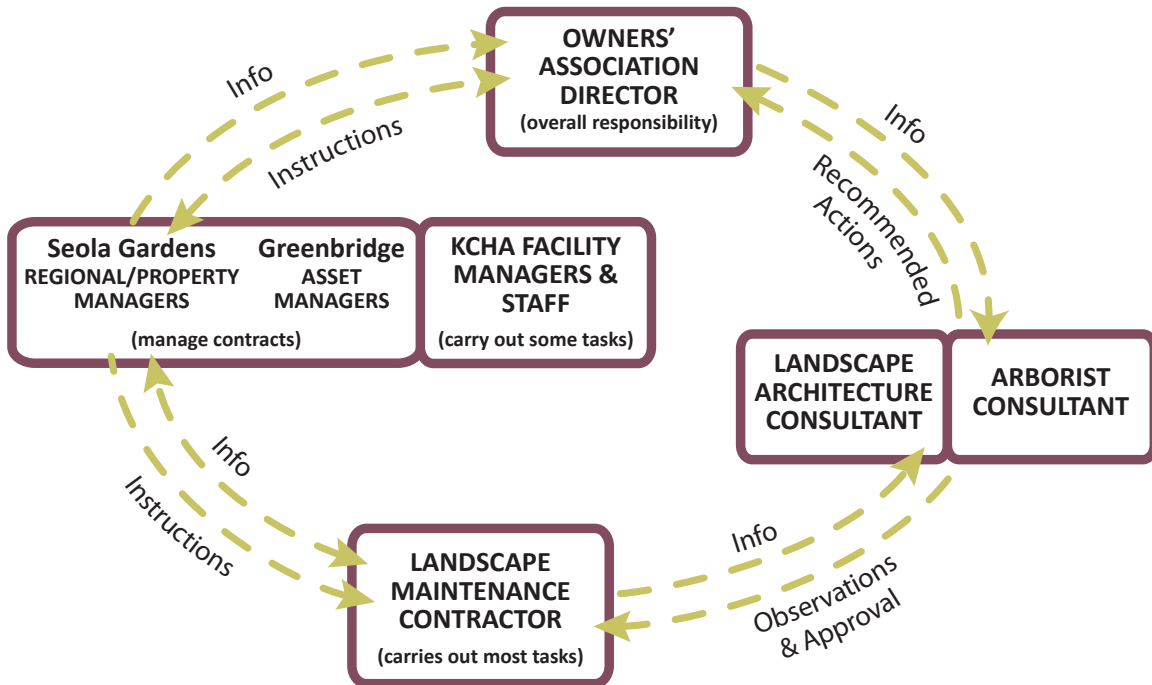
**Maintain mulch layer.** Continue to maintain 2"-3" of compost mulch throughout the planting beds. Discontinue the practice of frequently raking beds, as raking tends to scrape away the mulch layer. Rake only when necessary to remove excessive leaves and debris. A proper mulch layer will reduce the need for weeding, herbicides, watering and fertilizers.

**Documentation.** The landscape maintenance Supervisor will be required to keep track of how landscape maintenance workers use their time using a monthly activity log, see page 37. The GOA/SGOA Director will review the logs and assess which tasks are being emphasized and if they seem to be the best use of time to achieve the desired landscape results.



# Roles & Responsibilities

## Greenbridge & Seola Gardens Landscape Roles & Responsibilities



**Greenbridge & Seola Gardens Owners' Association Director.** The Director has overall responsibility for the quality and appearance of the Greenbridge or Seola Gardens landscape. Duties include:

- Continual observation to make sure that Greenbridge & Seola Gardens appear to be meeting the 4 Landscape Goals. Discuss concerns with the Asset Managers/Regional Managers and maintain a list of concerns and priorities.
- Call in an arborist for consultation 1 time per year and a horticulturist or landscape architect 2 times per year.
- Make decisions regarding landscape maintenance priorities.
- Provide direction to the Asset Managers (Greenbridge)/Property Managers & Regional Managers (Seola Gardens) and KCHA Facilities Managers for landscape maintenance.
- Review monthly landscape maintenance reports. Over time, assess whether worker time is distributed most productively on various landscape tasks.

**Asset Managers/Regional Managers.** Asset Managers and Regional Managers perform the following landscape-related tasks:

- Manage the contracts with the landscape maintenance contractor.
- Monitor the performance and conformance to their contracts and these guidelines.
- Collect monthly landscape reports and passes them on to the Director for review.
- Advise the Director on budget available for landscape maintenance and development.

**KCHA Facilities Managers/Property Managers.** KCHA Facilities Managers/Property Managers are responsible for some areas of landscape maintenance:

- Respond to concerns of Director.
- Help determine which tasks can be taken care of by KCHA staff and which should be handled by a contractor.

**Landscape Maintenance Contractor - Supervisor.** The supervisor is responsible for ensuring that his crew does the work to meet the terms of the contract, the instructions of the asset managers, and the guidelines in this booklet. Some of their duties include:

- Acquaint all workers with these guidelines and ensure that workers are trained in required techniques.
- Manage workers to accomplish maintenance tasks per the guidelines.
- Provide a monthly report to the Asset Manager/Property Manager enumerating how many worker hours are spent on each landscape tasks.

**Landscape Maintenance Contractor - Workers.** The employees of the landscape maintenance contractor need to review the landscape guidelines and carry out the maintenance work per the guidelines and per the instructions of the supervisor. Workers who will be pruning plants must have training.

**Arborist.** The GOA/SGOA Director will call an arborist, certified by the International Society of Arboriculture, once a year to assess any issues relating to Greenbridge and Seola Gardens trees. We suggest that the assessment take place in August, when healthy trees have full foliage, in contrast to trees that are stressed or unhealthy. Tree replacements should wait at least until the end of September when the weather is cooler and wetter. The arborist will:

- Make recommendations on how to optimize all of the growing conditions of the community trees. Healthy trees increase in value with age, withstand drought stress, resist disease, can survive insect damage, and save in long-term maintenance costs as they become integral parts of the neighborhood.
- Make recommendations on how to improve a specific tree's condition and whether

or not to remove trees. Ideally, the Director will be prepared to approve the recommendations and the landscape maintenance crew prepared to remove trees on the spot, so that the arborist can examine the rootball and planting hole and diagnose what caused the problems.

- Make recommendations for replacement trees, along with recommendations for any changes to the site (for instance fertilizing, mulching or improved drainage), or tree maintenance practices.
- Return, if needed, for a late September through October site visit to observe the installation of replacement trees
- Assess pruning needs. Carry out appropriate summer pruning (any pruning needed for clearance issues, such as removing a large overhanging limb over a sidewalk) and make a proposal for any needed winter pruning (for instance any pruning needed to improve the structure of the tree). Tree pruning is a skill set requiring specialized knowledge and experience. Bad (uninformed) pruning of trees may be difficult or impossible to reverse. We want to train the landscape maintenance crew to leave tree pruning completely to the arborist to insure that Greenbridge trees are thriving, safe and attractive.
- Promote awareness of trees to the community with a Tree Planting Day in October. An arborist has offered to give a tour/talk to interested residents in order to foster an appreciation of trees in the environment.

**Landscape Architect or Horticulturist.** The GOA/SGOA Director will call a state-licensed landscape architect or a qualified horticulturist with design experience two times per year, once in the spring (April or May) and once in the fall (September or October). At each visit the consultant will:

- With the input of the GOA/SGOA Director, identify the highest priority areas for plant replacement or re-arrangement and provide a plant list.
- On a return visit, supervise or review the layout of replacement and re-arranged plants.
- Identify plants needing pruning or removal.
- Review maintenance practices with the Landscape Maintenance Contractor Supervisor and the GOA/SGOA Director. Discuss and make recommendations for any needed adjustments.

Ideally, Greenbridge & Seola Gardens would retain a staff person trained in horticulture and landscape design (having a degree from a good horticulture program such as at Edmunds or South Seattle Community Colleges, or a licensed landscape architect) who would monitor the health and appearance of the landscape on a continual basis, come up with design solutions, and direct maintenance. In lieu of a permanent employee in-charge of landscape design and plant health, responsibility for these areas rests with the GOA/SGOA Director, supported by consultants and contractors, as outlined above.

# Maintenance Basics

## TREES

Trees are very important to Greenbridge. They are, literally, the biggest contributor to an attractive and healthy looking landscape. They contribute as well to environmental health, providing shade and counteracting excessive heat caused by paving and buildings, providing habitat, and attenuating the effects of storm water. (Studies have shown that well-established street trees increase a neighborhood's property value.) Maintaining a population of attractive, healthy trees is a key component of this plan.

Maintain the quantity of trees on site. When removing a tree, replace it in place if at all appropriate. If not appropriate (trees are too crowded, conditions are poor, conflicts with wires) select another location for a replacement tree.

Part of this maintenance plan is an annual visit and assessment by a certified consulting arborist. The arborist will diagnose tree problems, make recommendations for tree care, and direct and carry out (seasonally-appropriate) tree pruning. For more information on the responsibilities of the consulting arborist, see the Roles and Responsibilities section. Other maintenance workers may only prune trees under the direct supervision of the arborist.

Small trees such as Vine Maples and Serviceberries are trees, to be pruned only by or under the supervision of the arborist.

### Promote the health of trees by:

- Maintaining healthy conditions for tree roots. Before planting a tree, test the soil to make sure it will have adequate drainage, by digging a hole 1 foot deep, filling with water and seeing if it drains within 24 hours. Plant trees with intact, outward-oriented roots. Keep trees adequately watered until they become established, monitor to make sure the soil continues to drain, maintain a mulch layer over the planting area, protect from trampling on the roots, trunk damage from weed whackers and other physical damage.
- Removing dead or dying trees (that no longer have ecological or landscape value).
- Consulting with the arborist on tree care including any soil testing, required fertilization, addition of mulch and adjustments to watering and pruning.

## PLANTING BEDS

### Soil

The finish grade of soil should be slightly below adjacent paving or lawn grades. The mulch layer (see below) may taper at edges and should be even with adjacent paving or lawns. Fill slight soil deficiencies with compost or planting soil (see Materials List in Appendix. If soil levels are more than 3" low, fill with planting soil and incorporate it into the top layer of the existing soil.

### Weed control

**Weed all beds once a month with hand tools.** Flame weeders and hot water weeders may also be used with care to avoid damage to other plants.

Pre-emergent herbicides may be used in tree and shrub beds, **no more than 2 times per year.**

- Do not use herbicides in beds that have perennial plants, bulbs, or tender groundcovers.
- Do not use herbicides in beds with new plants for the first two years.
- Herbicides are to be applied only by a licensed applicator.

### Mulch

- Thoroughly hand-weed and water beds before applying mulch.
- Maintain a mulch layer on all planting beds at 2"-4" depth. Use Cedar Grove NW Garden Mulch (or approved equal by Landscape Architect or Horticulturist.
- After an initial application, fill in low spots annually.
- Keep mulch a minimum of 6" away from the trunk or stems of plants.

There are several kinds of mulch: compost mulch, medium bark mulch and woodchip mulch. A compost mulch provides nutrients to plants, prevents compaction, evaporation, makes weeds easier to pull, and limits soil runoff. **Where plants are well established and healthy, a medium bark mulch may be used, upon approval of the GOA/SGOA Director.** Bark mulches provide most of the same benefits—preventing evaporation, compaction and runoff—and are better at suppressing weeds. However, bark mulches release nutrients more slowly and can be hydrophylic, meaning they bind up water, keeping it unavailable to young plants, and some kinds of bark are not good for plants. Woodchip mulches provide similar benefits as bark mulches, but are coarse and not considered attractive by some people. Cedar Grove N.W. Garden Mulch is a combination of compost and bark mulches, and will provide optimal benefits.

### Fertilizers

In general, trees, shrubs or groundcovers mulched with a compost mulch will not need fertilizer. If plants are not thriving, assess and adjust mulching, irrigation and drainage. If specific plants have been diagnosed as having a nutrient deficiency, they may be treated with compost tea applications or an organic fertilizer that specifically addresses the deficiency, see materials section. Do not use synthetic fertilizers or fertilizers high in elements that are not needed in abundance by plants (discontinue use of 9-9-9 fertilizer +11 iron). The element most often deficient in northwest soils is nitrogen. It would be unusual for plants to need additional potassium or iron in the proportions provided by this fertilizer.

### Raking

While it is important to remove trash and excessive plant debris from beds, raking needs to be de-emphasized at Greenbridge & Seola Gardens. Frequent raking gradually scrapes away the compost layer which is so critical to plant health, water conservation and weed control. Raking also disturbs the soil, turning up buried weed seeds which can germinate with better exposure to sunlight.

- Remove trash leaves and debris from beds only as needed.
- Avoid scraping soil and mulch from beds. (Note: as plants fill in, less and less raking will be required).
- Refrain from “pruning up” plants to facilitate raking (it is ok to remove lower branches that are touching the ground and look bedraggled).
- Some leaf accumulation under plants is acceptable.
- Do not use leaf blowers in planting beds.

### Leaf Collection

Collect and dispose of leaves as needed throughout the fall season. After the leaf drop is complete, perform a thorough cleanup of all landscape areas.

### Pest and Disease Control

A healthy planting environment, correctly selected plants and some degree of tolerance is the best approach to pest control. However, if pests and diseases are impacting plant health and landscape appearance, some controls may be needed (see materials section).

- Protect and enhance naturally occurring beneficial organisms. Avoid unnecessary spraying and broad-spectrum pesticides.
- Use beneficial nematodes to control common lawn and garden pests that spend part of their lives underground, such as grubs, fleas, mole crickets, japanese beetles and weevils.
- Use natural pesticides for aphids, cutworms, leaf-miners whitefly and mites.
- Use non-chemical products to control mildew, including Neem oil and vegetable oil.

## LAWN CARE

Lawn areas in Greenbridge & Seola Gardens appear, by and large, healthy and well-maintained. The following guidelines make minor adjustments to the current lawn maintenance practices. A notable change is eliminating the practice of annual thatching and substituting a schedule of aeration. In general, we are shifting towards a more selective use of herbicides and more extensive use of manual and natural weed control and fertilizers.

### Mowing

- Mow with mulching mowers at frequency per the Maintenance Schedule.
- Mow to a height of 2.5" to 3.25".

### Clippings

Clean clippings from paving after each mowing, otherwise leave clippings on grass as mulch. Mulching mowers will chop clippings to a finer texture to reduce their being tracked indoors. Grass mulch can provide up to one quarter of the nitrogen required for lawn fertility. Do not allow clippings to create clumps or piles on the lawn.

### Edging (Hard Edging)

- Redefine lawn edges with a mechanical blade-type edger 4-times per year between March and October.
- Create rectangular shaped beds for trees in lawns, for easier mowing.
- Remove clippings and debris.
- Do not use edger within 2 feet of trees to avoid accidental trunk damage.

### Trimming (Soft Edging)

- Use a string type trimmer at lawn edges and areas inaccessible to mowers.
- Trim to same height as the adjacent lawn.
- Remove clippings and debris.
- Do not use trimmer within 2 feet of trees to avoid accidental trunk damage.

### Weed Control

- Regularly weed all lawn areas using manual pincer tools, flame weeders or hot water weeders.
- Spot spraying (with the correct herbicide by licensed applicators) is allowed on lawns. Avoid "weed'n seed" products intended for widespread application.



- Repair, reseed and mulch bare spots resulting from weeding in lawn areas.
- See also “Improving Poor Lawns”, below.

### Fertilizing

WSU Extension Service recommends a total of four pounds of nitrogen per 1000 square feet of lawn per year, in the form of a natural or slow release fertilizer. This recommendation is based on a perennial rye/fine fescue grass mix designed for the Pacific Northwest (a 100% perennial rye grass lawn requires more feeding). Divide applications into three or four sessions between April 15 and November 15 with the strongest in November to build a vigorous root system. Fertilizers may be a 100% organic slow release nitrogen lawn fertilizer, or a custom compost tea, applied per the manufacturer’s or suppliers instructions, but not to exceed four pounds of nitrogen per 1000 square feet. Add other elements only as needed as determined by testing.

### Aeration, overseeding and top-dressing

- Lawn aeration improves root growth and water penetration into the root zone. Reseeding with a top dressing will help to maintain dense and healthy lawn areas.
- The goal is to aerate one-third of the total lawn areas one time per year in the spring and/or fall. Rotate applications to achieve 100% lawn area coverage every 3 years.
- Adjust aeration schedule based on need.
- More frequent aeration is recommended where clover is an issue.
- Complete a double aeration pass for greater impact, especially where soil condition or lawn coverage is poor.
- Leave plugs on surface of lawn—they will slowly crumble into the lawn, bringing nutrients to the surface.
- Overseed following aeration, when conditions are good for germination and growth, typically between March 15 to April 15 in the spring or September 15 to October 15 in the fall.
- Apply seed mix at a rate of approximately 7 pounds/1000 square feet.
- Adding a mycorrhizal inoculants to the seed mix will give grass an extra boost, especially in problem areas (see approved materials).
- Apply topdressing (70/30 compost/sand mix(see approved materials)) at a rate of about 1.5 cubic yards per 1000 square feet. Rake so that some falls into aeration holes.

### Improving poor lawns

Lawns prefer 1) plenty of sun, 2) good drainage, 3) slightly basic (high) pH soil conditions and 4) adequate nitrogen. Problems with lawns can usually be reversed by addressing these conditions. Where addressing these conditions is a losing battle, such as trying to

drain a soggy low spot, bring these conditions to the attention of the GOA/SGOA director, who may consider replacing the lawn with other plants.

### Clover

Infestations of clover in turf grass indicate that the soil may be nitrogen deficient and/or compacted.

- Remove weed patches including roots, by hand or flame weeder (as a last resort, spot applications of appropriate herbicides may be used).
- Aerate, reseed and top dress bare patches.
- Test soil for nitrogen and other deficiencies.
- Address nitrogen deficiency by applying custom compost tea brew based on soil testing and supplier recommendation, or a natural nitrogen fertilizer.

### Moss

Infestations of moss indicate poor drainage, too much shade, nutrient deficiencies and/or acidic soils.

- Test affected areas for soil pH. Apply agricultural grade pellet form lime to attain a pH between 5.5 and 7.5. Apply lime at a rate based on samples and not to exceed 40 pounds per 1000 square feet.
- If area is compacted or poorly draining, aerate the area.
- Stop watering the area or let it dry completely between watering.
- Remove moss with a dethatching tool and overseed area with a shade-tolerant lawn mix designed for the Pacific Northwest.
- If moss returns, apply iron treatments annually to burn moss in the summer (Avoid iron treatment contact with concrete as it may stain).

# Removing & Replacing Plants

## WHEN TO REMOVE OR REPLACE PLANTS?

Use the following checklist to assess what to do with plants that are looking unhealthy, crowded, or are otherwise problematic. Plant removal/replacement forms should be included or summarized in the monthly landscape maintenance report. Weeds may be removed at any time.

## REMOVE

- Plant has more than 25% dead wood, or
- Plant requires pruning more than 1 time per year (ideally, no more than 1 time every two years) to stay clear of walkways, windows or buildings\*, or
- Plant is in a bed that is suffering from overcrowding and the surrounding plants will close the space.
- Plant is invasive and is crowding other plants.

## REPLACE

- If it is a tree. (if there is a problem with the site, such as poor drainage, fix the problem before replacing the tree, or find another place for the replacement tree), or
- If it leaves bare dirt that will not be filled in by adjacent plants within 1 year, or
- If it has provided some color, texture, height or other plant interest which is now missing from the bed.

## WAIT & WATCH

- Plant has less than 25% dead wood, and/or
- If changes in maintenance (fertilizer, more water) may be expected to help the plant recover.

## MOVE

- If it is a plant that can survive transplanting (e.g., ferns, rhododendrons, some trees), and
- Can be used somewhere else at Greenbridge or Seola Gardens, especially
- In the fall or winter, when transplanting has the best chance of success.

\* This is a long term goal. As discussed in the STRATEGY section, the replacement and removal of plants requiring excessive pruning should be phased.



Both of these Strawberry Trees want to grow big. Rather than trimming continually, remove the one closest to the bench and let the one further away grow.



Move or remove this willow, which is too close to the walk. Replace it with groundcover or perennials. Leave the willow that has enough room. (Where willows have been used as low hedges next to paving it is ok to keep them and maintain them by shearing.)

## Removing & Replacing Plants

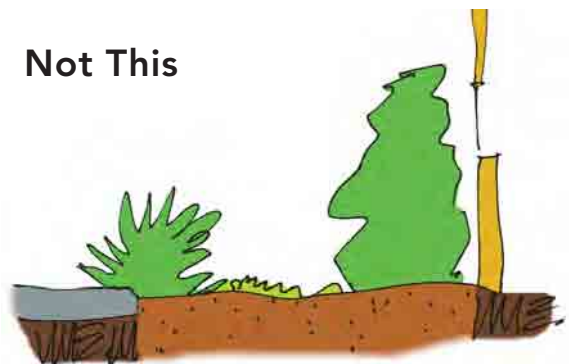
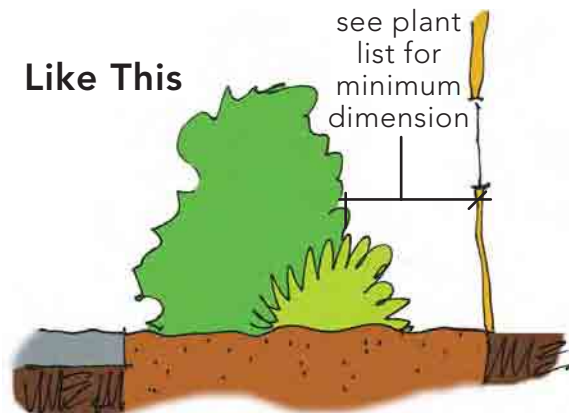
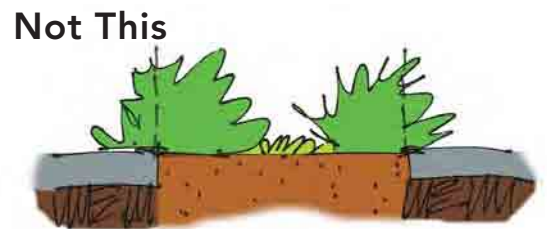
### SPACING & LAYOUT

When replacing plants, choose and lay out new plants allowing them room to grow to their eventual size. Do not choose plants that will grow too wide for their beds.

Place shrubs that will grow to be medium and large sized away from the edges of beds. In narrow beds such as along 8th street, place them in the center of the bed so they will have room to grow, without the need for trimming. Use groundcovers and perennials to fill in the space between the shrubs and the paving. As the shrubs grow, it is ok if they take over groundcover and perennial space.

Space medium and large shrubs far enough apart so they won't crowd each other too much when they grow. It is ok if they eventually touch and intermingle a little.

Place large shrubs away from windows.



# Plant Replacement List

Botanical Name (Common Name)	Light Requirements	Plant Description	Spacing	Minimum Distance Building/Paving	Drought Tolerance	Pruning Type*	Comments
<b>T(L): Tree (Large)</b> Get arborist recommendation for tree replacements, good choices might include:							
Quercus rubra (Red Oak)	Sun/ Sun-Shade	Deciduous			M	T	
<b>T(M): Tree (Medium)</b> Get arborist recommendation for tree replacements, good choices might include:							
Acer rubrum 'Autumn Flame' (Autumn Flame Maple)	Sun/ Sun-Shade	Deciduous			H	T	Better than 'Red Sunset'
Cercidophyllum magnificum (Katsura Tree)	Sun/Sun- Shade/Shade	Deciduous			M	T	
Cladastris kentukea cultivars (Yellowwood)	Sun/ Sun-Shade	Deciduous			M	T	
Fraxinus pennsylvannica 'Summit' (Summit Ash)	Sun/ Sun-Shade	Deciduous			H	T	
Ginkgo biloba 'Princeton Sentry'	Sun/ Sun-Shade	Deciduous			H	T	Use as replacement tree for 8th Street Maples and Ashes, as well as Ginkgos
Nyssa sylvatica (Tupelo or Sourgum)	Sun/ Sun-Shade	Deciduous			H	T	
Pinus contorta var. contorta (Shore Pine)	Sun/ Sun-Shade	Evergreen			H	T	
<b>T(S): Tree (Small)</b> Get arborist recommendation for tree replacements, good choices might include:							
Acer circinatum (Vine Maple)	Sun/Sun- Shade/Shade	Deciduous	10'	4'/3'	H	T	
Acer palmatum (Green Japanese Maple)	Sun/Sun- Shade/Shade	Deciduous	15'	7'/2'	M	T	This is the "species" Japanese Maple. Use near, but not directly in front of windows.
Acer palmatum 'Bloodgood' (Red Japanese Maple)	Sun/ Sun-Shade	Deciduous	20'	7'/2'	M	T	
Malus 'Royal Raindrops' (Royal Raindrops Crabapple)	Sun/ Sun-Shade	Deciduous	15'	7'/2'	M	T	
<b>Shrubs greater than 4' tall.</b> In residential areas, use only as accents & locate carefully. Keep away from windows. May be used in masses in large park areas.							
Abelia x grandiflora (Glossy Abelia)	Sun/ Sun-Shade	Deciduous	5'	7'/7'	H	M	Can grow 15' height x 15' width
Arbutus unedo 'Compacta' (Dwarf Strawberry Tree)	Sun/Sun- Shade/Shade	Evergreen	4'	3'/3'	H	TL	
Berberis thunbergii, various cultivars (Barberry)	Sun/ Sun-Shade	SH Evergreen	5'	4'/4'	H	MC	
Camellia sasanqua (Sasanqua Camellia)	Sun-Shade /Shade	Evergreen	5'	4'/4'	M	TL	

# Plant Replacement List

Botanical Name (Common Name)	Light Requirements	Plant Description	Spacing	Minimum Distance Building/Paving	Drought Tolerance	Pruning Type*	Comments
<b>Shrubs greater than 4' tall.</b> In residential areas, use only as accents & locate carefully. Keep away from windows. May be used in masses in large park areas.							
Hydrangea macrophylla (Big-leaf Hydrangea)	Sun-Shade /Shade	Deciduous	6'	5'/5'	M	C	
Hydrangea quercifolia (Oakleaf Hydrangea)	Sun-Shade /Shade	Deciduous	6'	5'/5'	M	C	
Mahonia aquifolium (Tall Oregon Grape)	Sun/Sun-Shade/Shade	Evergreen	4'	4'/4'	VH	C	Tall, somewhat floppy native
Miscanthus sinensis 'Gracillimus' or 'Adagio' (Eulalia Grass)	Sun	Grass	4'	2'/1.5'	M	PG	Decid perennial, cut dead foliage in March (earlier only if weathered and unattractive)
Nandina domestica 'Plum Passion' or species (Heavenly Bamboo)	Sun/Sun-Shade	Evergreen	3'	2'/2'	H	C	
Osmanthus delavayi (Osmanthus)	Sun/Sun-Shade	Evergreen	4'	3'/3'	H	TL	
Physocarpus opulus 'Diablo' (Purple Ninebark)	Sun-Shade/Shade	Deciduous	4'	5'/5'	H	W	Grows 12'. Prune to 1' every other year.
Prunus laurocerasus 'Zabeliana' (Zable's Laurel)	Sun/Sun-Shade/Shade	Evergreen	4'	5'/5'	H	M	4'-6' Ht. This cultivar is NOT English Laurel. Do not install English Laurel.
Ribes sanguineum (Red Flowering Currant)	Sun/Sun-Shade	Deciduous	6'	6'/6'	H	C	
Salix purpurea 'Nana' (Dwarf Arctic Willow)	Sun/Sun-Shade	Deciduous	4'	3'/3'	H	W	In Greenbridge, has been planted much closer. OK to treat as a hedge and shear.
Syringa vulgaris (Lilac)	Full Sun/Sun-Shade	Deciduous	8'	4'	M	TL/C	Use in inner corners close to buildings.
Vaccinium ovatum (Evergreen Huckleberry)	Sun/Sun-Shade/Shade	Evergreen	3'	2'/2'	VH	M	
Viburnum tinus 'Spring Bouquet' (Lauristinus)	Sun/Sun-Shade/Shade	Evergreen	6'	4'/4'	H	TL	May be used as hedge at 3' spacing
<b>S(M): Shrub (Medium) - 1' to 4'</b> Use in the center of small beds to replace plants that are "too big".							
Berberis thunbergii atro. 'Royal Burgundy' / Barberry	Sun/Sun-Shade	SH Evergreen	2.5'	1.5'/1.5'	M	N	Crimson dwarf is a little bigger.
Buxus sempervirens 'Suffruticosa' (Dwarf English Box)	Sun/Sun-Shade/Shade	Evergreen	2.5'	1.5'/1.5'	H	M	May be sheared as low hedge
Cistus skanbergii (Pink or Hybrid Rockrose)	Sun	Evergreen	2.5'	3'/2'	H	N	Slow growing tp 3', can spread 5'. Silver leaves, has survived a tough winter at GB.
Epimedium grandiflorum (Bishop's Hat)	Sun/Sun-Shade/Shade	Evergreen	2.5'	3'/2'	H	PG	

# Plant Replacement List

Botanical Name (Common Name)	Light Requirements	Plant Description	Spacing	Minimum Distance Building/Paving	Drought Tolerance	Pruning Type*	Comments
<b>S(M): Shrub (Medium)</b> - 1' to 4' Use in the center of small beds to replace plants that are "too big".							
Gaultheria shallon (Salal)	Sun/Sun-Shade/Shade	Evergreen	2.5'	3'/2'	VH	M	Incorporate soil from existing salal beds so new beds get beneficial nematodes.
Helleborus argutifolius (Corsican Hellebore)	Sun/Sun-Shade	Perennial	3'	2'/2'	L	P	
Helleborus niger or hybridus (Christmas or Lenten Rose)	Sun-Shade/Shade	Perennial	2'	2'/2'	L	P	
Ilex crenata 'Convexa' (Japanese Holly)	Sun/Sun-Shade/Shade	Evergreen	3'	3'/3'	H	M	Can get 9' tall but may be sheared as shorter hedge.
Ilex crenata 'Helleri' (Heller's Japanese Holly)	Sun/Sun-Shade/Shade	Evergreen	2'	3'/3'	M	M	Slow growing to 3' mound.
Juniperus sabina var. Tamariscifolia (Tam Juniper)	Sun	Evergreen	5'	5'/5'	VH	N	3' tall, spreads to 10'.
Lonicera pileata (Shrub Honeysuckle)	Sun/Sun-Shade	Evergreen	3'	3'/3'	H	N	3'-4' tall, can spread to 8'.
Mahonia nervosa (Low Oregon Grape)	Sun-Shade/Shade	Evergreen	3'	2'	H	N	Native plant, 1'-3' ht., great for park spaces in shade.
Miscanthus sinensis 'Morning Light' (Eulalia Grass)	Sun	Grass	4'	2'/2'	M	PG	Cut dead foliage in March (earlier only if weathered and unattractive).
Nandina domestica 'Compacta' (Dwarf Heavenly Bamboo)	Sun/Shade	Evergreen	1.5'	1'	H	N	
Pinus mugo 'Pumilio' or 'Prostrata' (Prostrate Mugo Pine)	Sun/Sun-Shade	Evergreen	6'	4'	VH	N	Slow growing.
Prunus laurocerasus 'Otto Luyken' (Otto Luyken Laurel)	Sun/Sun-Shade/Shade	Evergreen	3'	3'/3'	H	N	3' - 4' tall.
Spiraea x-Bumalda (Japanese Spirea)	Sun/Sun-Shade	Deciduous	3'	3'	H	M	'Goldflame', 'Goldmound', and 'Limemound', all get 5'-6' wide
Symphoricarpos alba (Snowberry)	Sun/Sun-Shade	Deciduous	3'	2'/2'	VH	M/C	
Taxus media 'Dark Green Spreader' (Low-spreading Yew)	Sun/Sun-Shade/Shade	Evergreen	2'	4'	M	N	Slow growing to 4' high x 4'-6' wide. Bright red berries on female plants are toxic.
Taxus baccata 'Repandans' (Low-spreading Yew)	Sun/Sun-Shade/Shade	Evergreen	2'	3'	M	N	18" height x 4'-5' wide. Bright red berries on female plants are toxic.
Viburnum davidii (David's Viburnum)	Sun/Sun-Shade/Shade	Evergreen	4'	3'/3'	H	M	
Viburnum tinus 'Compactum' (Compact Lauristinus)	Sun/Sun-Shade/Shade	Evergreen	4'	3'/3'	H	M	

# Plant Replacement List

Botanical Name (Common Name)	Light Requirements	Plant Description	Spacing	Minimum Distance Building/Paving	Drought Tolerance	Pruning Type*	Comments
<b>G: Groundcover and Small Shrubs</b> - Less than 1' Use at the edges of planters, to fill in between larger shrubs, and to fill small spaces.							
Arctostaphylos uva-ursi 'Vancouver Jade' (Kinnikinnick)	Sun	Evergreen	2'	1'/1'	VH	N	
Ceanothus gloriosus (Pt. Reyes Creeper)	Sun	Evergreen	2'	1'/1'	VH	N	May spread to 6', may be edged.
Erica carnea 'Springwood Pink (or White)' (Winter Heath)	Sun/Sun-Shade	Evergreen	2.5'	1'/1'	M	N	
Erigeron karvinskianus	Sun/Sun-Shade	Evergreen Perennial	3'	1'/1'	H	N	Trailing, long bloom time.
Fragaria 'Pink Panda' (Sand Strawberry)	Sun/Sun-Shade	Evergreen	2'	1'	H	N	
Geranium incanum such as 'Johnson's Blue' (Hardy Geranium)	Sun/Sun-Shade	Perennial			H	P	Remove spent leaves and flowers in fall.
Helianthemum, many species and cultivars	Sun/Sun-Shade	Evergreen	1.25'	.75'	VH	F	Brief bloom of brilliant flowers, Shear after blooming.
Maianthemum bifolium (False Lily of the Valley)	Sun-Shade/Shade	Perennial	2'	1'	L	N	Native plant, very low groundcover, needs moisture.
Origanum vulgare 'Aureum' (Golden Oregano)	Sun/Sun-Shade	Perennial	1.5'	6"	H	F	Shear after blooming late summer.
Oxalis oregana (Oregon Oxalis)	Shade	Perennial	2'	6"	H*	N	Spreads aggressively.
Prunus laurocerasus 'Mt. Vernon' (Cherry Laurel)	Sun/Sun-Shade/Shade	Evergreen	2'	1.5'	H	N	May need some irrigation in full sun. Spreads to 12'-18" groundcover
Rubus calcynoides (Creeping Bramble)	Sun/Sun-Shade/Shade	Evergreen	2'	2'/1'			Spreads vigorously
Sarcococca hookeriana 'humulis' / Low Sweet Box	Shade	Evergreen	2'	2'/2'	M	N	
Sedum, many species and cultivars (Stonecrop)	Sun/Sun-Shade/Shade	Evergreen	1.5'	8"	H	F	Some are tall--choose a groundcover sedum.
Vinca minor (Periwinkle)	Sun-Shade/Shade	Evergreen	2'	1'	H	N	Good for under building/ roof overhangs.
<b>P: Perennials and Grasses</b> - Use as accents for color, texture, and seasonal interest							
Blechnum spicant (Deer Fern)	Shade	Evergreen	1.5'	1'/1'	M	PG	
Carex morrowii 'Ice Dance' (Variegated Sedge)	Sun-Shade/Shade	Evergreen	1.5'	1'	M	G	



# Plant Replacement List

Botanical Name (Common Name)	Light Requirements	Plant Description	Spacing	Minimum Distance Building/Paving	Drought Tolerance	Pruning Type*	Comments
<b>P: Perennials and Grasses</b> - Use as accents for color, texture, and seasonal interest							
Carex testacea (Orange New Zealand Sedge)	Sun/ Sun-Shade	Evergreen	2'	2'	M	G	
Convallaria majalis (Lily-of-the-Valley)	Shade	Perennial		N/A	H	N	Spreads aggressively.
Crocus (Spring and Autumn Crocus)	Sun/ Sun-Shade	Perennial		N/A	M	N	Bulbs, plant in clumps.
Dicentra spectabilis 'Goldheart' (Gold Bleeding Heart)	Shade	Perennial		2'/2'	M	P	
Hakonachloa macra 'Aureola' (Japanese Forest Grass)	Sun/ Shade	Perennial		3'/3'	M	PG	
Helictotrichon sempervirens (Blue Oat Grass)	Sun	Perennial		2'/2'	H	PG	
Hemerocallis fulva (Tawny Daylily)	Sun/ Sun-Shade	Perennial		1.5'/1.5'	M	P	'Stella d'Oro' may also be used.
Liriope (Lily Turf)	Sun-Shade /Shade	Evergreen	1.5'	8"	H	G	Slow to fill in.
Muscari (Grape Hyacinth)	Sun/ Sun-Shade	Evergreen		N/A	H	P	
Pennisetum alopecuroides 'Hamelin' (Dwarf Fountain Grass)	Sun	Perennial		1'/1'	M	PG	Dried leaves have winter interest.
Polystichum munitum (Sword Fern)	Sun/Sun- Shade/Shade	Evergreen	2.5'	2'	VH	PG	
Sedum spectabile 'Autumn Joy' (Autumn Joy Sedum)	Sun	Perennial		2'/2'	H	P	
Paeonia (Peony)	Sun	Perennial		2.5'/2.5'	H	P	

# Plant Replacement List

* Pruning Types		
T	Tree	Pruning by arborist or under arborist supervision
TL	Tree-like shrub	Selective pruning
M	Mounding shrub	Selective pruning
C	Cane-growing shrub	Selective pruning
PG	Perennial grass and ferns	Cut dead foliage in March (leave for winter interest, cut earlier only if weathered and unattractive)
W	Whack-able	Prune close to ground annually or biannually as needed
FS	Flowering shrub or perennial	Shear off flowers and long stems after blooming
G	Evergreen grass	Hand-rake out old leaves before new growth emerges
P	Perennial	Remove spent flowers and foliage in late summer or fall. May require monthly dead-heading during flowering season.

# Irrigation

Plants are growing so well that it appears irrigation can be eliminated or reduced throughout much of the Greenbridge & Seola Gardens landscapes. Benefits would include substantial monetary savings from reduced water use and lesser savings related to reducing the need for pruning. Most plants would grow slower, reducing the need for frequent pruning to keep plants off of walkways, building siding etc.

Plantings at Greenbridge & Seola Gardens are largely composed of drought-tolerant species, though some planting beds include a mix of drought-tolerant plants and plants that require regular irrigation in the same irrigation zone. The soil in most areas of Greenbridge & Seola Gardens is of reasonably good quality and depth and, with mulch, allows for efficient irrigation management. Plants are growing vigorously in most areas of the site. Currently, all irrigation zones on the site are still active, running from 3 days a week in the spring to 5-6 days a week as weather heats up. Most of the established beds no longer require multiple watering per week. Given the soil conditions, turf areas could be more efficiently irrigated with less frequent runs.

## Recommended Water Conservation Measures:

- Install rain sensors. The Saving Water Partnership will rebate the cost of the sensor and \$50 towards installation.
- Conduct a landscape/irrigation review to identify zones where irrigation can be stopped entirely or reduced to a few times per summer, and where sprinkler heads on completely drought tolerant plants in zones that have plants that need irrigation can be shut off.
- Consider upgrading to Smart Controllers with weather sensors that automatically adjust irrigation schedules based on weather. This reduces water waste and reduces labor costs. The Saving Water Partnership will provide a rebate that covers equipment and part of installation costs.
- Conduct a detailed audit by a state certified irrigation auditor of the irrigation system and site. Review the system for leaks and inefficiencies. Assess which zones need to be watered less frequently and adjust the controller.
- Collect water bills to provide a complete record of irrigation water use. As part of the detailed audit, the auditor will create a water budget based on the existing plants watering needs and compare it to actual water use.
- Consider installing flow sensors and master valves (if MV's are not present) to detect leaks and shut off flows when leaks are present. The Saving Water Partnership will provide a rebate that covers equipment and part of the installation costs for all of these items.

# Pruning

**Goal:** Evolve Greenbridge & Seola Gardens to a “minimal pruning” environment. This is in line with all four of our major landscape goals:

- Attractive—aim for a “natural” aesthetic, allowing plants to have their natural forms and growth.
- Variety—allow plants to grow to different sizes, and display a variety of texture, structure and flower characteristics.
- Maintainability—phase out plants that are too big for their location and require frequent pruning.
- Sustainability—use less effort, power and money trimming plants.

**Three main strategies govern pruning:**

- Trees are to be pruned by the consultant arborist, or under his/her direct supervision.
- Shrubs and groundcovers are to be pruned **ONLY** by employees of the landscape maintenance contractor who:
  - Have attended an approved training\*, or
  - Are a Certified Landscape Technician, and
  - Have passed the Pruning Pop-quiz
- Hold landscape strategy meeting at the beginning of each pruning cycle to review goals.

**General Pruning Guidelines**

- Let the arborist handle tree pruning, according to the American National Standards Institute A-300 Pruning Standards.
- Pruning of most shrubs will be done according to “selective pruning” techniques. The “shearing” technique is allowed for hedges, but is not generally allowed for any other plants.
- Prune shrubs only as necessary for safety and comfort of residents and visitors and for the health of the plants.

\* A pruning class or seminar conducted by Edmunds Community College, South Seattle Community College or Plant Amnesty.



- Shrubs should not be pruned for size constraint until they reach their mature sizes in 7 – 10 years. The reason is that IT WILL NOT WORK. The plants will increase their growth rate to compensate and become undesirably dense and twiggy. Any plants which must be pruned to fit the space available should be transplanted or removed.
- Minimize “aesthetic” pruning. Pruning plants into shapes, or “neatening them up” is a different style not appropriate for Greenbridge & Seola Gardens.
- Shearing will be allowed to maintain hedges. In Greenbridge & Seola Gardens, Dwarf Arctic Willows have been used as small hedges and seem to survive shearing well. It is ok to treat them as a hedge.
- Shrubs requiring more than one annual pruning for clearance of walkways, etc., will be considered for transplantation or removal.
- Discuss the timing of different pruning tasks at the strategy meeting held in conjunction with the spring and fall landscape consultant visit. Generally,
  - If plants are being selectively pruned in moderation, anytime is the right time to prune (with the exception of some plants that tend to bleed). Any heavy pruning or shearing of flowering shrubs should take place in the summer shortly after flowering.
  - Shearing or non-selective pruning of appropriate plants (vine whacking and coppicing red-twig dogwood should take place in the winter).

**What is the difference between “shearing” and “selective pruning”?**

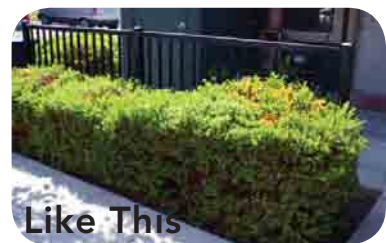
Shearing is what you are doing when you use shears, power shears, or power hedge trimmers. When you are shearing, you are making many small cuts at random locations along plant stems (see “non-selective heading cuts”). Selective pruning generally involves hand pruners or loppers and requires you to make cuts one at a time at a specific place on a twig or branch (See “selective pruning cuts”). Selective pruning is used to remove branches or twigs that are causing



This willow was pruned 2 months ago.



Rock roses do not take long-term shearing well. These should be replaced by something smaller.



Like This



Not This

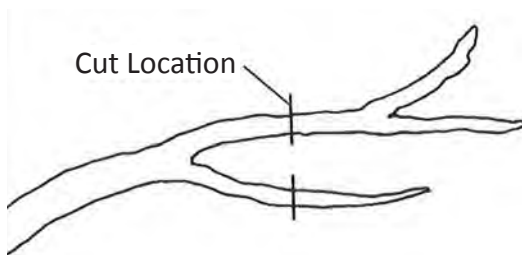
problems such as blocking a path or to open up the plant to let in more light and air, and to reduce the buildup of dead wood and disease. Any kind of pruning stimulates the plant to grow faster. In selective pruning, growth is directed into the branches that remain, following a natural branching pattern, while non-selective pruning stimulates growth of many fast-growing sprouts around the cut.

### Types of Pruning Cuts

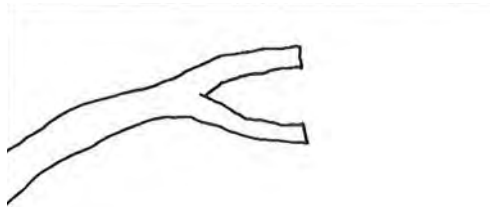
Shearing is characterized by non-selective heading cuts. Selective pruning is characterized by selective heading cuts and thinning cuts. Learning the difference is important because nonselective heading cuts lead to watersprouts, whereas selective heading and thinning cuts generally do not.

#### Non - Selective Heading Cut (the shearing cut)

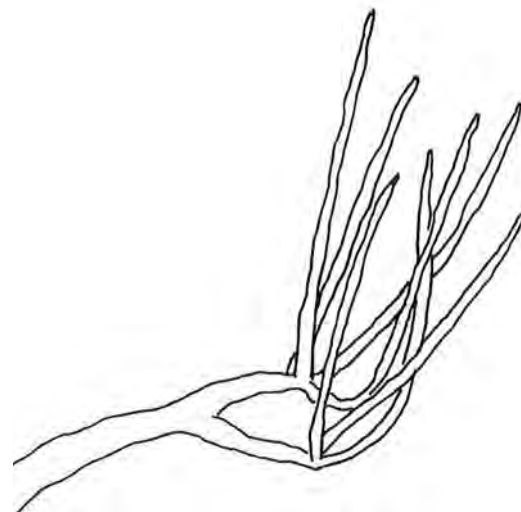
**Undesirable!**



The original branch.



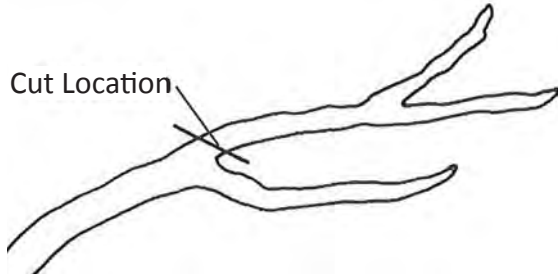
Cuts are made at random locations along stem. Between nodes (the "V's" where branches and buds branch off).



A little later -- rapid growth of a mass of water sprouts. Stimulates fast, uncontrolled growth

**Desirable!**

**Selective Heading or Thinning Cut (selective pruning cuts)**



The original branch.



Cut off one side of the "V" between two branches.



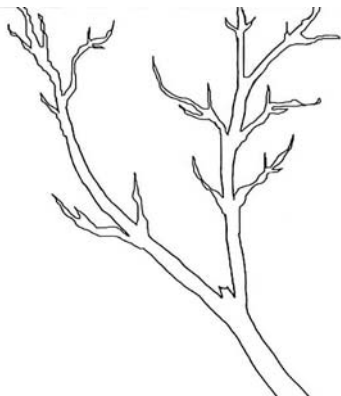
Later -- a natural pattern of new growth continues in the remaining original branch.

Note:

If you cut off the side stem and leave the main stem, that is selective thinning.

If you cut off the main stem and leave the side stem, that is selective heading. If you cut off the main stem (heading), the side stem needs to be big enough to take over the lead growth job, or you may get watersprouts after all.

**Selective Heading or Thinning for Opposite-Branching Plants**

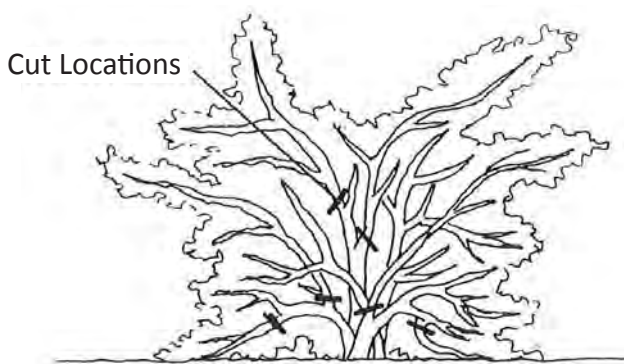


Try to leave the smallest stub possible when pruning opposite-branching plants.

**Pruning Mounding-Habit Plants**

Mounding -habit plants tend to be wider than tall, and most have small leaves or supple branches. You can generally remove about one third of the shrubs leaf-area without harming the plant too much. Leave them alone when possible -- but they may be pruned to improve their shape or an over-congested appearance, or to reduce their size (moderately -- if the shrub is way too big, replace it with a smaller-growing shrub).

Before:

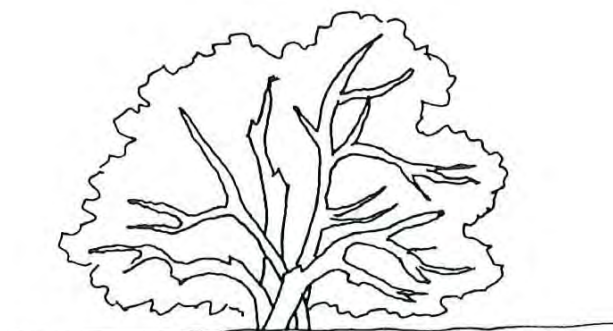


First prune out the deadwood. Then use the grab and snip method: Grab the branch that doesn't look right and hide the cut inside the plant.

Mounding -habit shrubs:

- Abelia
- Aucuba
- Barberry
- Boxwood
- Broom
- Burning Bush
- Cinquefoil
- Escallonia
- Evergreen Azalea
- Evergreen Euonymus
- Heath
- Heather
- Juniper
- Japanese Holly
- Laurustinus
- Lavender
- Mexican Orange
- Rockrose
- Snowberry
- Spirea

After:



Shorter and tidier but still natural looking.





**Pruning Cane-Growing Shrubs**

Cane growing shrubs are made up of branches that arise from the ground. They do not divide as many times as do tree branches. These shrubs tend to be taller than they are wide, with a vertically or vase-shaped habit. These shrubs are very tough and may be pruned heavily. Removing deadwood is the first thing to do. Then they may be thinned or limbed up. Some cane-growers can benefit from occasional radical prunings -- being cut entirely to the ground. In the case of Redtwig Dogwood, the bright red color of the twigs gets duller as it grows, and when pruned, the new stems come back with the original bright color.



Thin Cane-growers by removing selected canes at the ground.



Red Twig Dogwood & Willows may be “coppiced” (all stems cut to 6”-18” tall) in the winter

**Shearing for hedges**

Shearing is allowed for hedges. A hedge is a continuous row of the same species of shrubs and is designated as a hedge.

- Shear the whole hedge as a unit. Do not shear between shrubs in the hedge.
- Formal hedges may be sheared along their sides and top. Shear hedges so that the top is level and the sides are even.
- Small hedges may be left with a “natural” top (don’t shear the top).



Hedge plants pruned as individuals.



Continuous hedge where plants are pruned as a unit.

# Special Areas

## 8th Street

8th Street is the “Main Street” of Greenbridge—keeping it looking attractive is a top priority. 8th Street presents some particular challenges. (See fold out at end of document for 8th Street Tree Plan)

- All trees and plants in the street right-of-way must conform to King County guidelines. Street trees need to be selected from King County’s Approved Street Tree List.
- 8th Street planting must withstand heavy impacts from parking and pedestrians.
- Many of the planting areas are quite small or narrow, limiting the selection of plants that can be used in them without excessive pruning.
- Above-ground planters dry out quickly and present a more challenging environment to plants.

Guidelines for removing and replacing plants, irrigation and pruning all apply to 8th Street as well as the rest of Greenbridge & Seola Gardens. However, on 8th Street, there should be particular emphasis on the following:

- Replacing dead or dying plants and filling in any bare spots with appropriate plants.
- Maintain a pedestrian-friendly environment by keeping large plants away from paving and using smaller plants—groundcovers and perennials—near paving.
- Whereas the goal in general at Greenbridge & Seola Gardens is to try and reduce maintenance, perennials (generally higher maintenance than groundcovers) may be emphasized on 8th Street for a more colorful and attractive landscape.
- Use small shrubs, vigorous groundcovers and perennials in above-ground planters that will not grow too big and can withstand drought.
- Deal with pedestrians “cutting” corners and trampling plants with a variety of approaches:
  - Placing paving stones or compacted crushed rock in the corner to “authorize” and accommodate the cutting where appropriate.
  - Block the corner by placing a small boulder or a large planting pot (note that keeping plants watered and attractive in any such pot will also be a maintenance task).These steps may require adjustments to existing irrigation heads.

## Parks

Greenbridge & Seola Gardens are home to 13 small parks and greenways. These public landscapes are very important in contributing to the overall attractiveness of both Greenbridge & Seola Gardens. The Parks are generally well designed with good sightlines for public safety. Many of the parks have large planting areas that can accommodate large plants and where natives and non-natives can be left in a “wilder” state than in the

more narrow urban areas of the rest of Greenbridge & Seola Gardens. Where there are serious wear and tear issues from a flow of pedestrians through planting areas, (such as in Riparia at SW 99th St and 10th Pl SW) , the GOA/SGOA Director and consulting landscape architect should discuss the problem and assess if the solution lies in protecting the beds (for instance by using fencing) or by making improved entries , paving or bed configuration to accommodate the pedestrian desire paths.

### Bioswale

The bioswale along SW 100th Street is designed to clean storm water runoff before returning it to the Puget Sound watershed. To protect water quality, this landscape must be maintained using a completely non-chemical approach.

- Line trim or mow (mower set at 4" height) once or twice a month from February to November, see the Maintenance Schedule.
- Weeding. Weed manually using pincer-type weeding tools, flame weeders or hot water weeders. Pay special attention to nuisance and invasive vegetation before it establishes a foothold. These include Reed Canary Grass, Japanese Knot Weed, Horsetail, Morning Glory and Blackberries. Watch for these plants and remove them completely.
- Encouraging "right" plants. Encourage desirable plants to out-compete weeds by fertilizing area with a custom compost tea and beneficial nematode applications (see materials and sources appendix).

### Yards

When maintaining the private yards at the entries to homes, remember that we are trying to balance a number of factors such as usability, comfort, variety and privacy.

- As existing plants get bigger, it may be necessary to replace them with smaller-growing plants to avoid the entry feeling congested or requiring too much maintenance to keep plants off of the walkways.
- At the same time, designers have appropriately placed some plants that are intended to be tall to provide variety and partial screening. Most of these taller plants have already been heavily pruned. If there is space to accommodate their full size, they should be allowed to grow. As they regain their natural size, they may require restorative pruning to regain a more natural branching pattern by an employee who has been trained in selective pruning techniques.
- As plants are replaced in entry areas, remember the goal of providing variety, to avoid an "institutional" looking landscape.

# Maintenance Schedule

	January	February	March	April	May	June	July	August	September	October	November	December
<b>Strategy</b>												
<b>GOA/SGOA Director - Observation</b>												
<b>Arborist Consultation</b>												
<b>Landscape Architect Consultation</b>												
<b>Pruning Strategy Meeting</b>												
<b>Submit Hours / Tasks Forms</b>	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month	1x per month
<b>Remove / Replace</b>												
<b>Remove &amp; Replace</b>										allow 1-2 weeks		
<b>Pruning &amp; Trimming</b>												
<b>Tree Pruning (by Arborist)</b>												
<b>Light-Moderate Shrub Pruning (Selective Pruning Only)</b>	light pruning may be done at any time of year											
<b>Heavy Shrub Pruning &amp; Shearing</b>												
<b>Cut Back Perennials</b>												
<b>Cut Back Ornamental Grasses (Deciduous)</b>												
<b>Hand Rake Ornamental Grasses (Evergreen)</b>												

# Maintenance Schedule

	January	February	March	April	May	June	July	August	September	October	November	December
<b>Lawn Areas</b>												
<b>Mowing</b>	1x per month	2x per month	weekly	weekly	weekly	weekly	weekly	weekly	weekly	2x per month	1x per month	
<b>Soft Edging</b>		1x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	1x per month	
<b>Hard Edging</b>		1x per month	1x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	1x per month	1x per month
<b>Fertilizing</b>				1x per month					1x per month			
<b>Post Emergent Weed Control</b>				1x per month					1x per month			
<b>Aeration, Overseeding &amp; Top-Dressing</b>					1x per 3 years							
<b>Lime Application (As Needed For Moss Control)</b>												
<b>General Activities</b>												
<b>Sweep / Blow Walks</b>	2x per month	2x per month	weekly	weekly	weekly	weekly	weekly	weekly	weekly	weekly	2x per month	2x per month
<b>Moss Control on Walks</b>		1x per month								1x per month		
<b>Irrigation</b>				system start up	monitor	monitor	monitor	monitor	monitor	de-activate		
<b>Litter Pickup</b>	*	*	*	*	*	*	*	*	*	*	*	*
<b>Insect &amp; Disease management</b>	upon request											
<b>Storm Debris Cleanup</b>	upon request											
<b>Seasonal Color</b>	upon request											

# Maintenance Schedule

	January	February	March	April	May	June	July	August	September	October	November	December
<b>Beds</b>												
<b>Hand Weed</b>	1x per month	2x per month	weekly	weekly	weekly	weekly	weekly	weekly	weekly	2x per month	1x per month	
<b>Pre-emergent Weed Control (Snap-shot)</b>				1x per month						1x per month		
<b>Apply Compost Tea, Nematodes or fertilizer (if necessary)</b>			1x per month				1x per month					
<b>Mulch (add if needed to maintain 2"- 3" Depth)</b>			1x per month		1x per month		1x per month		1x per month		1x per month	
<b>Fall Leaf Removal</b>										*	*	*
<b>Bioswales</b>												
<b>Line Trim or Mow (4" High Blade)</b>		1x per month	1x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	2x per month	1x per month	

# Removing & Replacing Plants

## WHEN TO REMOVE OR REPLACE PLANTS?

Use the following checklist to assess what to do with plants that are looking unhealthy, crowded, or are otherwise problematic. Plant removal/replacement forms should be included or summarized in the monthly landscape maintenance report. Weeds may be removed at any time.

### REMOVE

- Plant has more than 25% dead wood, or
- Plant requires pruning more than 1 time per year (ideally, no more than 1 time every two years) to stay clear of walkways, windows or buildings\*, or
- Plant is in a bed that is suffering from overcrowding and the surrounding plants will close the space.
- Plant is invasive and is crowding other plants.

### REPLACE

- If it is a tree. (if there is a problem with the site, such as poor drainage, fix the problem before replacing the tree, or find another place for the replacement tree), or
- If it leaves bare dirt that will not be filled in by adjacent plants within 1 year, or
- If it has provided some color, texture, height or other plant interest which is now missing from the bed.

### WAIT & WATCH

- Plant has less than 25% dead wood, and/or
- If changes in maintenance (fertilizer, more water) may be expected to help the plant recover.

### MOVE

- If it is a plant that can survive transplanting (e.g., ferns, rhododendrons, some trees), and
- Can be used somewhere else at Greenbridge, especially
- In the fall or winter, when transplanting has the best chance of success.

Propose to remove: Plant \_\_\_\_\_

Quantity \_\_\_\_\_

Propose to replace w/: Plant \_\_\_\_\_

Quantity \_\_\_\_\_

GOA Director Approval: \_\_\_\_\_

Date: \_\_\_\_\_



Both of these Strawberry Trees want to grow big. Rather than trimming continually, remove the one closest to the bench and let the one further away grow.



Remove this willow, which is too close to the walk. Replace it with groundcover or perennials

\* This is a long term goal. As discussed in the STRATEGY section, the replacement and removal of plants requiring excessive pruning should be phased.

# Landscape Maintenance Monthly Activity Log

Date: \_\_\_\_\_

For Month of: \_\_\_\_\_

	Week 1	Week 2	Week 3	Week 4	Total
	Man Hours Per Week				
<b>Lawn Care</b>					
<b>Mowing</b>					
<b>Trimming &amp; Edging</b>					
<b>Aeration, Top-dressing or Fertilizer/Herbicide</b>					
<b>Planting Bed Care</b>					
<b>Removal, Transplanting &amp; Planting</b>					
<b>Weeding (Hand)</b>					
<b>Applying Mulch</b>					
<b>Application of Herbicides</b>					
<b>Pesticides</b>					
<b>Fertilizer</b>					
<b>Shrub &amp; Ground cover Pruning</b>					
<b>Perennial Maintenance</b>					
<b>Tree Care</b>					
<b>Tree Care</b>					
<b>Sidewalks &amp; Paving</b>					
<b>Maintenance</b>					
<b>Trash, Graffiti Removal &amp; Vandalism Repair</b>					
<b>Irrigation &amp; Other</b>					
<b>Irrigation</b>					
<b>Other</b>					
<b>Totals</b>					

Signature: \_\_\_\_\_

Comments & Concerns: \_\_\_\_\_





# Products & Suppliers

Suppliers	Mycorrhizal inoculants	Beneficial Nematodes	Natural Lawn Fertilizers	Natural Shrub Bed Fertilizers	Natural pesticides & herbicides	Compost/ Bark Mulch
Walt's Organic Fertilizer Co. Contact: <a href="mailto:waltsorganicfertilizer@yahoo.com">waltsorganicfertilizer@yahoo.com</a> (206) 297-9092 1528 NW Leary Way Seattle, WA 98107	available	available	Compost tea	Compost tea	Corn Gluten	
In Harmony Landscapes Contact: Ladd Smith <a href="mailto:LSmith@Inharmony.com">LSmith@Inharmony.com</a> 425.486.2180 23622 Bothell/Everett Highway Bothell, WA 98021	available	available	Compost tea	Compost tea	Corn Gluten	
Hendrikus Organics <a href="http://www.hendrikusorganics.com">www.hendrikusorganics.com</a> 425.392.9977 14461 Tiger Mountain Road SE Issaquah, WA 98027	available	available	Compost tea, Seasons 8-2-4	Compost tea, Complete 6-4-4		
Nature Safe 800.252.4727 <a href="http://www.naturesafe.com">www.naturesafe.com</a>			High Potassium 7-1-14	Landscape Fertilizer 8-5-5		
Plant Health Care 800.421.9051			Healthy Turf 8-1-9	Rainy PNW Blend 7-4-9		
Cedar Grove						N.W. Garden Mulch
Safer <a href="http://www.saferbrand.com">www.saferbrand.com</a>					Pesticides & anti mildew products	

**Herbicides:** (apply per federal guidelines and by a licensed applicator)

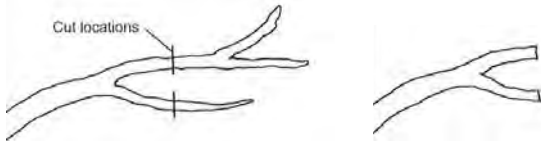
**Planting Beds** - Snapshot or similar

**Lawns** - Speed Zone or similar

# Pruning Pop Quiz

## Pruning Cuts

1. When a cut is made on the branch of a woody shrub or tree that looks like this, it is called a non-selective heading cut:



How will the branch grow in response the next year? Circle the best answer.



A. Growth forced below cut like this:



B. Fast thick growth from cut upward like this:



C. Similar growth from cut upward like this:



D. Nothing grows next year:

2. When a branch is cut as shown in the picture below, it is called a thinning cut:



How will the branch probably grow next year?  
Circle the best answer.



A. More growth from tips like this:



B. Regrowth in the same place like this:



C. Nothing grows next year:



D. Fast thick growth from cut upward like this:

# Pruning Pop Quiz

## Multiple Choice

3. Pruning a shrub with shears or a power trimmer
  - A results in many non-selective heading cuts
  - B results in rapid regrowth of twigs that are thicker than before
  - C results in a plant that is weaker a more likely die when the weather gets cold or dry
  - D is also called "shearing"
  - E all of the above
  
4. Selective pruning is a technique that
  - A requires the use of hand pruners or loppers
  - B requires making carefully placed thinning cuts
  - C stops plants from growing
  - D all of the above
  - E a and b only
  
5. If you have some extra time, a good thing to do would be
  - A weeding
  - B watering
  - C take a break
  - D get out your shears or clippers and "shape" some shrubs
  - E a-c
  
6. If a plant looks a little uneven, it is better to
  - A leave it alone
  - B take some pruning shears and neaten it up
  
7. At Greenbridge & Seola Gardens, the best shape for a plant is
  - A a cube
  - B a ball
  - C a teardrop
  - D its natural shape
  
8. If a plant has one or two branches extending over a walkway, the best thing to do would be
  - A prune the plant into a ball using pruning shears
  - B remove the offending branches using selective pruning techniques
  - C remove the entire plant

# Pruning Pop Quiz

## Multiple Choice

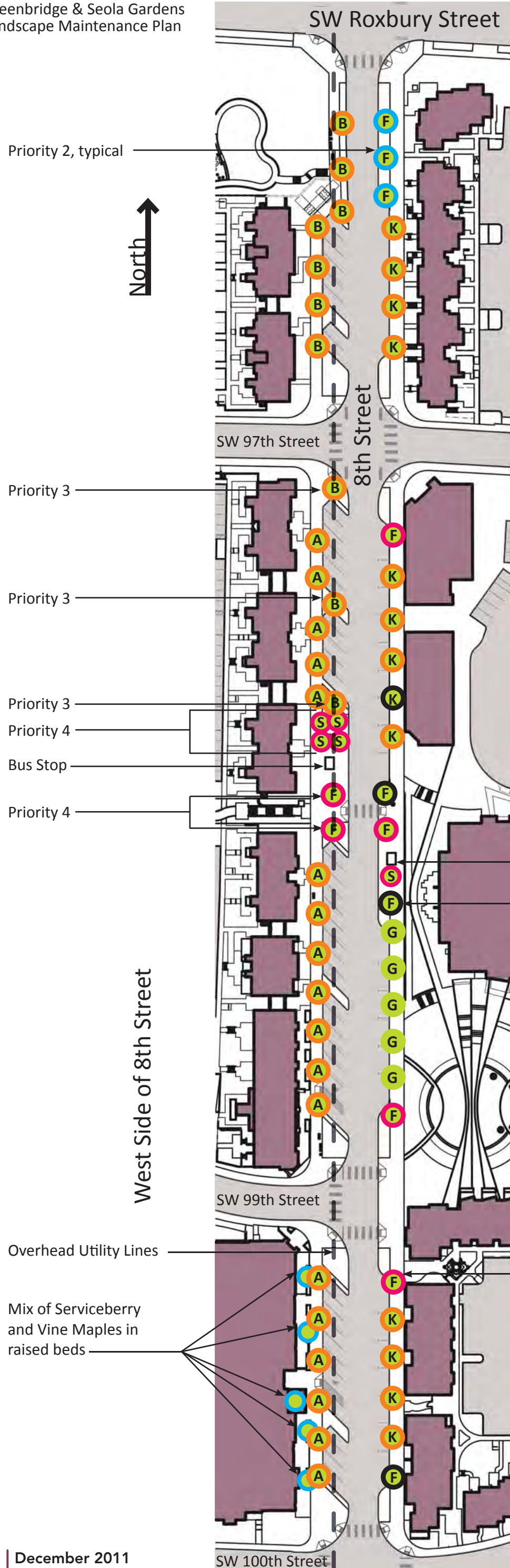
9. Shearing
- A is encouraged because you can prune many plants quickly
  - B is appropriate for shaping many kinds of plants at Greenbridge & Seola Gardens
  - C is allowed for hedges and to keep sidewalks clear but otherwise should not be used at Greenbridge & Seola Gardens
10. What is the best way to keep plants clear of the sidewalk?
- A remove big shrubs that need to be pruned a lot and replace them with plants that grow smaller
  - B shear all the shrubs into teardrop shapes
  - C plant large shrubs in the center of the bed, away from the sidewalk
  - D A & C
11. Which of the following are NOT true about hedges
- A there are specific plants that are good for hedges, because they can withstand a lot of pruning
  - B it is ok to use shears or power trimmers on hedges
  - C you should prune in between each plant so they don't touch
  - D usually you should just prune the sides of a hedge; sometimes it is appropriate to prune the top
12. If plants in a bed are very crowded, the best response is
- A Shear around the edge of the bed
  - B shear all the plants to make them smaller and keep them from touching each other
  - C remove some of the plants to give the others more room
13. The best spacing of plants in a bed would be
- A when the plants have grown, they touch and overlap a little, with minimal bare dirt showing
  - B plants are well separated from each other allowing for easy raking
  - C plants are very crowded so there is no bare dirt showing at all
14. A small tree looks like it's going to grow against the wall and eaves of a house. You should
- A ask your supervisor to bring it to the attention of the consulting arborist—only the arborist can prune trees at Greenbridge
  - B Cut all the branches to give the building a few feet of clearance—make a nice flat top
  - C Prune the tree using selective pruning techniques

# Pruning Pop Quiz

## Answers

1. B
2. A
3. E
4. E
5. E
6. A
7. D
8. B
9. C
10. D
11. C
12. C
13. A
14. A

# 8th Street Tree Plan



## Key - Tree Health

- Tree in very good health
- Tree in good health
- Tree in ok health
- Tree in poor health
- Tree in very poor health - Priority 1

## Key - Tree Species

- A Maple - *Acer rubrum* 'Red Sunset' or 'October Glory'
- B Bradford Pear - *Pyrus calleryana*
- F Raywood Ash - *Fraxinus oxycarpa* 'Raywood'
- G Columnar Ginkgo - *Ginkgo biloba* 'Princeton Sentry'
- K Katsura Tree - *Cercidiphyllum japonicum*
- S Serviceberry - *Amelanchier alnifolia*

## Priorities

1. Replace  
Trees with substantial die-back. Replace  Raywood Ashes with Katsuras.
2. Consult with arborist for advice on improving the health of trees that are in "ok" or "poor" health.
3. Replace  
Bradford Pears which will conflict with overhead wires. (3)
4. Monitor Raywood Ashes and Serviceberries near west side of bus stop for health and potential conflicts with overhead wires. Amelanchier eventually becoming a conflict with overhead wires.

Bus Stop  
Priority 1, Typical

East Side of 8th Street

West Side of 8th Street

Priority 2, Typical

Overhead Utility Lines  
Mix of Serviceberry and Vine Maples in raised beds

