Planning and Community Development
1812 Main Street• PO Box 257 • Lake Stevens, WA 98258
Phone: (425) 622-9400 • www.lakestevenswa.gov
permits@lakestevenswa.gov

Guide For Landscaping

City of Lake Stevens
Department of Planning and Community Development
Administrative Policy No. 1995-3

E-1: Guide for Protecting Existing Trees. LSMC 14.76.120 provides for the retention and protection of large trees when land is developed. To better ensure the survival of existing trees, the developer should heed the following guidelines (in addition to the requirements of LSMC 14.76.120):

(1) Protect trees with fencing and armoring during the entire construction period. The fence should enclose an area 10 feet square with the tree at the center.

(2) Avoid compaction of the soil around existing trees due to heavy equipment. Do not pile dirt or other materials beneath the crown of the tree.

(3) Keep fires or other sources of extreme heat well clear of existing trees.

(4) Repair damaged roots and branches immediately. Exposed roots should be covered with topsoil. Severed limbs and roots should be painted. Whenever roots are destroyed, a proportionate amount of branches must be pruned so the tree doesn't transpire more water than it take in. Injured trees must be thoroughly watered during the ensuing growing year.

(5) Prune all existing trees that will be surrounded by paving to prevent dehydration.

E-2: Standards for Street and Parking Lot Trees. Trees planted in compliance with the requirements of Sections 14.76.110 (Required Trees Along Dedicated Streets) and 14.76.130 (Shade Trees in Parking Areas) shall have most or all of the following qualities. The trees recommended in Section E-10 represent the best combinations of these characteristics.

Hardiness	Resistance to Extreme Temperatures
	Resistance to Drought
	Resistance to Storm Damage
	Resistance to Air Pollution
	Ability to Survive Physical Damage From Human Activity
Life Cycle	Moderate to rapid rate of growth.
	Long Life.
Foliage and Branching	Tendency to branch high above the ground.
	Wide-spreading habit.
	Relatively dense foliage for maximum shading.

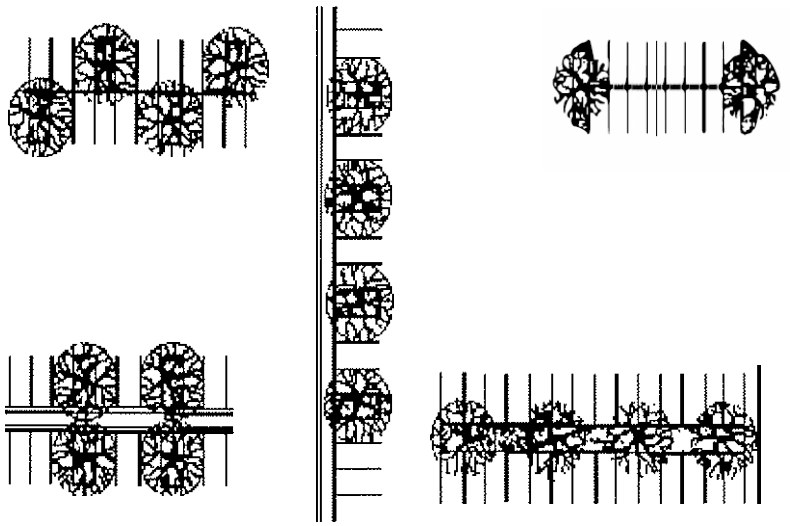
Maintenance	Resistance to pests.
	Resistance to plant diseases.
	Little or no pruning requirements.
	No significant litter problems.

E-3: Formula for Calculating 20 Percent Shading of Vehicle Accommodation Areas. The Following is an elementary formula for determining the number of shade trees required in and around paved parking lots to satisfy the shading requirements of LSMC presumptively
14.76.130 (Shade Trees in Parking Areas).

1	Including parking spaces, driveways, loading areas, sidewalks, and other circulation areas and not including building area or any area which will remain completely undeveloped, calculate square footage of the vehicle accommodation area (in square feet).
2	Multiply the area arrived at in step 1 by 0.20 (20%) to determine the area of shading required.
3	Divide the area of shading arrived at in step 2 by 707* s.f. to determine the number of trees that are required within the vehicle accommodation area.

'Trees planted within the vehicle accommodation area are credited with shading 707 square feet (based on a crown radius of 15 feet) New or existing trees on the perimeter of the parking lot are credited for having only half a crown over the vehicle accommodation area (i.e.354 square feet). Generally, all trees planted in compliance with the screening requirements of Chapter 14.76, Part I, and the street tree requirements of LSMC 14.76.110 will be considered perimeter trees. When smaller trees such as Dogwoods are planted, the credited shading area will be adjusted downward to 314 square feet for interior trees and 157 square feet for perimeter trees. (Based on crown radius of 10 feet)

E-4: Typical Parking Lot Planting Islands.



E-5: Guide for Planting Trees. The trees recommended in Section E-10 have minimal maintenance requirements. However, all trees must receive a certain degree of care, especially during and immediately after planting. To protect an investment in new trees, the developer should ensure that the following guidelines are followed when planting:

(1) The best times for planting are early spring and early fall. Trees planted in the summer run the risk of dehydration.

(2) Plant all trees at least 32 feet from the end of head-in parking spaces to prevent damage from car overhangs.

(3) Dig the tree pit at least one foot wider than the root ball and at least six inches deeper than the ball's vertical dimension.

(4) Especially in areas where construction activity has compacted the soil, the bottom of the pit should be scarified or loosened with a pick ax or shovel.

(5) After the pit is dug, observe subsurface drainage conditions. Where poor drainage exists, the tree pit should be dug at least an additional 12 inches, and the bottom should be filled with coarse gravel.

(6) Root barriers must be installed around all street trees within planter strips or within three feet of any concrete or asphalt.

(7) The Backfill should include a proper mix of soil, peat moss, and nutrients. All roots must be completely covered, and the backfill should be thoroughly watered as it is placed around the roots.

(8) Immediately after it is planted, the tree should be supported with stakes and guy wires to hold it firmly in place as its root system begins to develop. Staked trees will become stronger more quickly. Remove stakes and ties after one year.

(9) Spread at least three inches of mulch over the entire excavation in order to retain moisture and keep down weeds. An additional three-inch saucer of mulch should be provided to form a basin around the trunk of the tree. This saucer helps catch and retain moisture.

(10) The lower trunks of new trees should be wrapped with burlap or paper to prevent evaporation and sun scald. The wrapping should remain on the tree for at least one year.

(11) Conscientious post-planting care, especially watering, pruning, and fertilizing, is a necessity for street and parking lot trees. Branches of new trees may be reduced by as much as a third to prevent excessive evaporation.

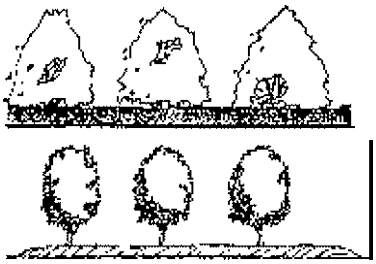
E-6: Typical Opaque Screens.

Small rees planted 30' on center with a 6' high evergreen screening shrubbery planted 4' on center.

Large trees planted 40' on center with 6' high solid wood fence.

Tall evergreen trees, staggered, with branches touching the ground.

E-7: Typical Semi-Opaque Screens.

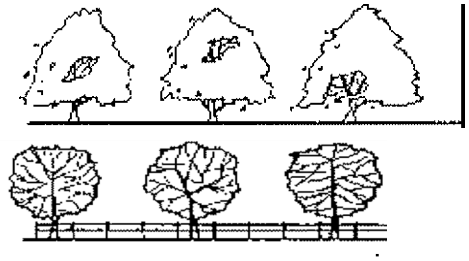


Small trees planted 30' on center, 3' high stone wall.

Small trees planted 10' on center on top of a berm.

Large trees planted 40’ on center, with three-foot high hedge shrubbery planted 3' on center

E-8: Typical Broken Screens,



Small trees planted 30' on center.

Small trees planted 30' on center with a split rail fence.

Large trees planted 40' on center with assorted shrubbery.

E-9: Guide for Planting Shrubs. Shrubs planted for screening purposes should be given a proper culture and sufficient room in which to grow. Many of the guidelines for tree planting listed in Section E-5 also apply to shrubs. However, because specific requirements vary considerably between shrub types, this appendix does not attempt to generalize the needs of all shrubs. For detailed planting information on individual species, refer to one or more reliable reference sources on shrubs.

E-LQ: Table of Recommended Trees and Shrubs. The following table indicates plantings which will meet the screening and shading requirements of Chapter 14.76 of the land- use code. The table is by no means comprehensive and is intended merely to suggest the types of flora which would be appropriate for screening and shading purposes. Plants were selected for inclusion on these lists according to four principal criteria: (i) general suitability for the climate and soil conditions of this area, (ii) ease of maintenance, (iii) tolerance of city conditions, and (iv) availability from area nurseries. When selecting new plantings for a particular site, a developer should first consider the types of plants which are thriving on or near that site. However, if an introduced species has proven highly effective for screening or shading in this area, it too may be a proper selection.

Table of Recommended Trees and Shrubs								
Botanical Name	Common Name	Small Trees for Partial Screening	Large Trees for Evergreen Screening	Small Shrubs for Evergreen Screening	Large Shrubs for Evergreen Screening	Assorted Shrubs for Broken Screening	Large Trees for Shading or Screening (no utility lines)	Small trees for shading or Screening (overhead utility lines)
	Callery Pear	X						
	Fortune Tea Olive				X			
Abelia grandiflora	Glossy Abelia			X				
Acer campestre	Hedge Maple							**X**
Acer ginnala	Amur Maple							**X**
Acer grisuem	Paperbark Maple							X
Acer nigrum [11]**Greencolumn**[11]	Greencolumn Maple						X	
Acer Platanoides [1]**Columnare**[1] 'Compacta', 'Crimson Sentry'	Columnar Maple Compact Maple Compact Crimson King Maple						X	X
Acer platanoides 'Globosum'	Globe Norway Maple							X
Acer platampodes 'Cleveland', [1]**Deborah**[1] 'Schwedli', 'Superform'	Norway Maple						X	
Acer pseudoplatanus	Sycamore Maple						**X**	
Acer rubrum	Red Maple						X	
Acer rubrum 'Bowhall', 'Scarlet Sentinel', [1]Karpic[1]" [1]Doric[1]	Upright Red Maples						X	
Acer saccharum 'Legacy'	Legacy Sugar Maple						X	
Acer truncatum	Shantung Maple							X
Acer truncatum X A. platanoider [1]**Warrenred**[1]	Pacific Sunset Maple							X
Aesculus hippocastanum [1]**Baumanii'**	Bauman Horsechestnut						X	
Aesculus x carnea [1]**Briotii'**	Red Horsechestnut						X	
Aorbus aria	Whitebeam						X	

Botanical Name	Common Name	Small Trees for Partial Screening	Large Trees for Evergreen Screening	Small Shrubs for Evergreen Screening	Large Shrubs for Evergreen Screening	Assorted Shrubs for Broken Screening	Large Trees for Shading or Screening (no utility lines)	Small trees for shading or Screening (overhead utility lines)
Bambusa multiplex	Hedge Bamboo				X			
Berberis julianae	Wintergreen Barberry			X				
Berberis thunbergii	Japanese Barberry					X		
Berberis verruculosa	Warty Barberry			X				
Betula jacquemontii	Jacquemontii Birch						X	
Betula nigra	River Birch	X						
Calocedrus decurrens	Incense Cedar		X					
Carpinus betulus 'Fastigiata'	Pyramedal European Hornbeam						X	
Carpinus betulus 'Globosum'	Globe European Hornbeam							X
Carpinus carolinia	Amarican Hornbeam	X						
Cedrus deodara	Deodar Cedar		X					
Cercidiphyllum japonicum	Katsura						X	
Cercis canadensis	Eastern Redbud	X						
Chioanthus virginicus	Fringetree					X		
Cornus florida	Flowering Dogwood	X						
Cornus kousa	Kousa Dogwood							X
Corylus colurna	Turkish Filbert						X	
Crataegus crus-galli 'Inermis'	Thornless Cockspur Hawthorn							X
Crataegus phaenopyrum	Washington Hawthorn							X
Crataegus x lavallei	Lavalle Hawthorn							X
Elaeagnus angustifolia	Russian Olive	X						

Botanical Name	Common Name	Small Trees for Partial Screening	Large Trees for Evergreen Screening	Small Shrubs for Evergreen Screening	Large Shrubs for Evergreen Screening	Assorted Shrubs for Broken Screening	Large Trees for Shading or Screening (no utility lines)	Small trees for shading or Screening (overhead utility lines)
Elaengus pungens	Thorny Elaengus				X			
Fagus sylvatica	European Beech						X	
Fagus sylvatica 'Dawyckii'	Pyramidal Beech						X	
Forsythia intermedia, F. suspensa, F. viridissima	Forsythia					X		
Fraxinus americana 'Autum Purple', Autumn Applause', Champaign Country', 'Rose Hill'	American Ash						X	
Fraxinus ornus	Flowering Ash						X	
Fraxinus oxycarpa 'Raywood'	Raywood Ash						X	
Fraxinus pennsylvanica [1]**Patmore**[1] [1]**Summit**[1] Urbanite'	Green Ash						X	
Gingko biloba	Maidenhair Tree						X	
Gingko biloba 'Princeton Sentry'	Princeton Sentry Gingko						X	
Gleditisia triacanthos	Honeylocust						X	
Halesia monticola	Mountain Silverbell	X						
Hamamelis intermedia	Witch Hazel					X		
Hamamelis virginiana	Common Witch Hazel					X		
llex cornuta 'Burfordii'	Buford Holly				X			
llex crenata	Japanese Holly (var. varieties)			X				

Botanical Name	Common Name	Small Trees for Partial Screening	Large Trees for Evergreen Screening	Small Shrubs for Evergreen Screening	Large Shrubs for Evergreen Screening	Assorted Shrubs for Broken Screening	Large Trees for Shading or Screening (no utility lines)	Small trees for shading or Screening (overhead utility lines)
Ilex Opaca	American Holly	X						
Ilex spp. (dwarf varieties)	various dwarf Hollys			X				
Ilex vomitoria	Yaupon Holly				X			
Juniperus chinensis 'Pfitzerana'	Pfitzer Juniper					X		
Koelreuteria paniculata	Goldenrain Tree	X						
Lagerstroemia indica	Crepe Myrtle	X						
Leucothoe fontanesiana	Drooping Leucothoe					X		
Ligustrum japonicum	Japanese Privet				X			
Liquidambar styracifula	Sweet Gum						X	
Liriodendron tulipifera	Tuliptree						X	
Lonicera fragrantissima	Winter Honeysuckle					X		
Magnolia grandiflora	Southern Magnolia		X					
Magnolia kobus	Kobus Magnolia							X
Magnolia stellata	Star Magnolia					X		
Malus spp.	var. Crabapples							X
Malus tschonoskii	Flowering Crabapples							X
Malus x zumi 'Calocarpa'	Redbud Crabapple							X
Metaseqyoia glyptostroboide	Dawn Redwood		X					
Myrica pensylvanica	Northern Bayberry					X		
Oxydendrum arboreum	Sourwood	X						
Parrotia persica	Persian Ironwood							X
Photinia fraseri	Red Photinia				X			
Photinia x fraseri	Redtip Photinia Tree							X

Botanical Name	Common Name	Small Trees for Partial Screening	Large Trees for Evergreen Screening	Small Shrubs for Evergreen Screening	Large Shrubs for Evergreen Screening	Assorted Shrubs for Broken Screening	Large Trees for Shading or Screening (no utility lines)	Small trees for shading or Screening (overhead utility lines)
Platanus acerifolia	Sycamore or London Plane Tree						X	
Prunus [1]'Okame'	Okame Flowering Cherry							X
Prunus caroliniana	Carolina Cherry-Laurel	X						
Prunus cerasifera 'Krauter Vesuvius'	Flowering Plum							X
Prunus serrulata var's.	Japanese Flowering Cherry varieties						X	
Prunus x hillieri 'Spire'	Spire Cherry							X
Prunus x yedoensis 'Akebono'	Akebono Yoshino Flowering Cherry						X	
Pyrus calleryana [1]'Aristocrat'	Aristocrat Flowering Pear							X
Pyrus calleryana 'Capital', 'Chanticleer'	Flowering Pears						X	
Quercus acutissima	Sawtooth Oak						X	
Quercus coccinea	Scarlet Oak						X	
Quercus ilex	Holly Oak							X
Quercus imbricaria	Single Oak						X	
Quercus palustris 'Crownright'	Crownright Pin Oak						X	
Quercus phellos	Willow Oak						X	
Quercus robur	English Oak						X	
Quercus robur 'Fastigiata'	Upright English Oak							X
Quercus rubra	Red Oak						X	
Quercus shumardii	Shumard Oak						X	
Rhododendron spp.	Azaleas and Rhododendrons			X				

Botanical Name	Common Name	Small Trees for Partial Screening	Large Trees for Evergreen Screening	Small Shrubs for Evergreen Screening	Large Shrubs for Evergreen Screening	Assorted Shrubs for Broken Screening	Large Trees for Shading or Screening (no utility lines)	Small trees for shading or Screening (overhead utility lines)
Sorbus ainfolia	Korena Mountain Ash						X	
Sorbus aria	Whitebeam						X	
Sorbus tianshanica [1]Dwardcrown[1]	Red Cascade Mountain Ash							X
Sorbus x hybrida	Oak-leaved Mountain Ash							X
Styrax japonica	Japanese Snowdrop Tree							X
Syringa reticulata (amurense var. japonica)	Japanese Tree Lilac							X
Taxus cuspidata	Japanese Yew			X				
Thuja plicata	Western Red Cedar		X					
Tilia cordata 'Chancelor'	Littleleaf Linden						X	
Tilia cordata 'Greenspire'	Littleleaf Linden						X	
Tilia tomentosa	Silver Linden						X	
Tiliia x euchlora	Crimean Linden						X	
Tsuga spp.	var. Hemlocks		X					
Ulmus [1]Pioneer[1] 'Homestead'	Hybrid Elms						X	