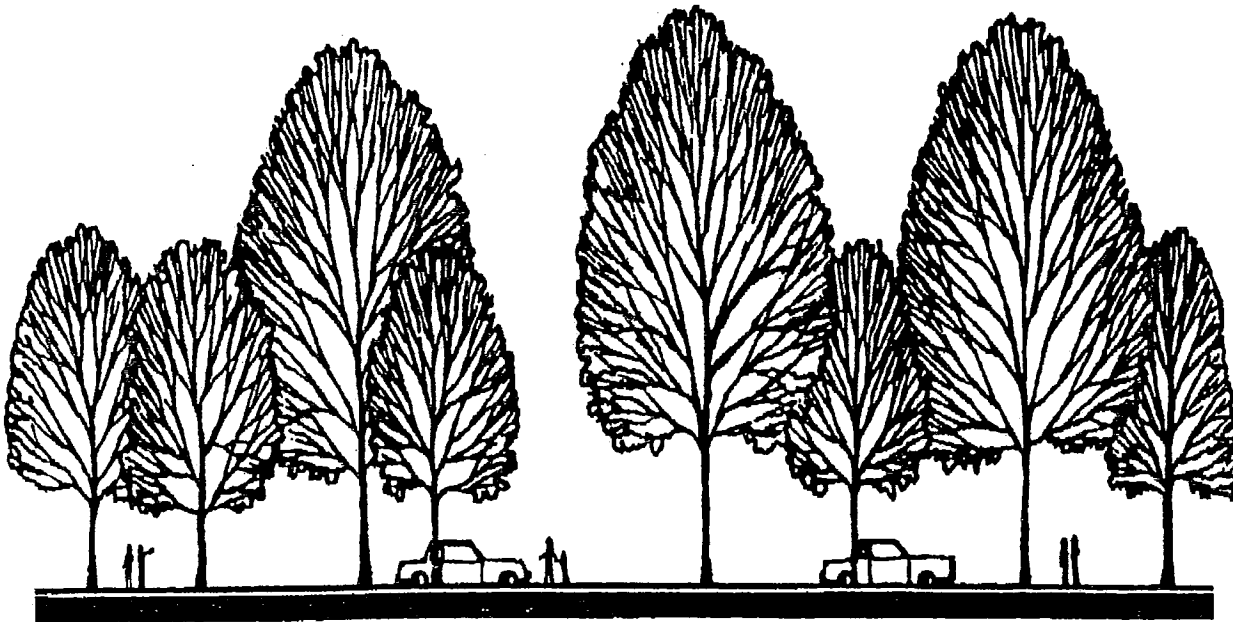


# ***STREET TREE SELECTION GUIDE***

*for parking strips in American Fork, Utah*



*American Fork Beautification – Shade Tree Committee*

*July 2001*

# *Street Tree Selection Guide*

Trees are a valuable component of our city. Trees clean the air we breathe, muffle city noise, harbor wildlife in their canopies, cool houses with their dense shade, and increase property values. But perhaps most of all, trees provide a natural beauty that softens the harsh city landscape. Trees truly enhance the quality of life for all of American Fork's residents.

Unfortunately not all trees are properly planted and cared for. Growth characteristics including height, spread, and branching structure limit the usefulness of some trees in certain locations. Streets, buildings, and sidewalks also limit the space available for tree growth and must be considered when selecting a tree. The goal should be to choose a tree that is well matched to the planting site so that it survives and becomes an asset to the community.

In the interest of public safety, the City of American Fork may ensure removal (by the property owner or City) of any shade or ornamental tree or part thereof, planted in the park strip, that is a risk to vehicle or pedestrian traffic, sewer, electric power lines, gas lines, water lines or other public improvements, or is infected with any injurious fungus, insect or other pest.

The purpose of this document is to give you, the home or business-owner, information or guidance in the selection and planting a tree or trees in the parking strip area around your home. There are, of course, other good options in landscaping parking strips. Some people choose to plant grass or other ground cover while others may choose rock or brickwork. Should you, however, choose to plant a tree or trees in the parking strip read on for guidelines and ideas on various types of trees.

## *How to Select a Tree*

Shade trees vary greatly in their growth characteristics. Learning about a tree's shape, mature height, and spread will help in selecting the right tree for the right place. The idea is to first consider the planting site. Does the location have adequate irrigation? Are there any overhead wires? How wide is the parking strip? Once the location has been considered, it is then time to choose a tree from this guide that will best fit the location.

The trees in this guide are generally tolerant of local temperature extremes (hardiness) and have characteristics that make them useful as street trees. Each tree in the guide is listed with its botanical and common names followed by a short narrative with general information. All of the trees have been divided into classes dependent on the height, width, and spacing requirements that the trees will need at maturity. These divisions are described as follows:

- Class I      These are small trees which normally do not reach a large height or trunk diameter. They are authorized for planting in parking strips that are a minimum of four feet wide. Typical spacing between Class I trees is twenty-five feet. Many Class I trees are small enough to be planted beneath overhead utility lines.
  
- Class II     This group consists of medium sized trees. These trees are not for planting under power lines or in parking strips less than six feet wide. Typical spacing between Class II trees is thirty-five feet.

## ***Street Tree Selection Guide, continued***

### ***How to Select a Tree, continued***

Class III Many of these trees are long-lived and attain a large height and trunk diameter. When selecting a tree from this class, ensure you have ample room to accommodate it at maturity. These trees are certainly not for planting under power lines or in parking strips less than 10 feet wide. Typical spacing between Class III trees is 40-50 feet.

### ***Site Selection and Maintenance Considerations***

There are a number of things to consider when planting a tree in a parking strip. The tree must not interfere with visibility near an intersection so make sure no trees are planted within 30 feet of the corner. All trees should be properly trimmed and maintained but those of a corner house or business must be especially cared for because of traffic considerations. Any traffic sign should be free of obstruction from all directions. Branches that overhang the sidewalk must be trimmed 8' up so pedestrians can walk safely underneath.

When planting your tree or trees keep in mind how you are going to water it. Will you install a sprinkler system or have another plan for getting water to the trees. Plan to regularly trim the tree and see to its health just as you would plants on your own property.

Another important maintenance consideration includes your plan to clean up and properly dispose of leaves, blossoms, etc. that may fall from the tree. Leaves that are not cleaned up can be a safety hazard to pedestrians walking along the sidewalk. Such debris that is not disposed of properly can find its way into the drain system. When this happens the sewer drains get clogged and you and/or your neighbors down the road can experience flooding.

So when selecting the site of your trees, follow the planting guidelines for distance, place them where they will not become a traffic safety problem and plan to maintain them properly.

### ***How to Plant a Tree***

The best way to ensure a healthy and safe street tree is to start by planting the tree correctly. There are only a few things to remember when planting. Please follow these planting directions:

1. Select one of the species in this *Street Tree Selection Guide* for planting.
2. Before choosing the planting location, contact the Public Works Department at (801) 763-3050 for location of water lines, sewer lines and other city utilities. Call the American Fork Irrigation Company at 227-9208 or 756-1060 to be sure that your tree will not interfere with the local irrigation system. It is also a good idea to check with Blue Stakes at (800) 662-4111 for location of underground utilities such as telephone, cable, and gas lines.
3. Dig planting hole at least twice the width of the root ball.
4. Prune circling or protruding roots and remove twine from canopy.
5. Handle root ball with extreme care. Minimize as much as possible any crumbling, cracking, and splitting of the root ball.
6. After gently placing the tree in the hole, remove wire and burlap if stability of the root ball allows. If not, remove only the top one or two rows of wire and an equal amount of burlap. Cut vertical slits in the burlap that remains. Do not fold burlap into the hole.
7. Use the soil removed from the hole to backfill. Minimize air pockets by removing soil clumps, rocks, sod, and folded burlap.

## ***Street Tree Selection Guide, continued***

### ***How to Plant a Tree, continued***

8. Thoroughly water. Allow water to soak deeply into the site.
9. Place 4 to 5 inches of mulch over the planting site. Avoid direct contact between mulch and the trunk of the tree.
10. Check moisture content of the backfill and root ball weekly to determine how much and how often to water.
11. To remove a tree from a container, gently lay it down. Push on the sides and bottom of the container to break contact between the root ball and container. Hold the trunk near the surface of the soil and push/pull the container away from the root ball. Slide the container off the root ball. Do not pull on the trunk. If the root ball is too large for this process it may be necessary to cut the container off after the tree is placed in the planting site.

### ***What Not to Plant***

There are some types of trees that have characteristics that are not suited to areas close to streets, sidewalks and buildings. These tree species are most suited for yards, parks or other natural areas and should **not** be planted along city streets. A list of trees not <sup>recommended</sup> approved for planting along streets is found at the end of this guide.

## CLASS I TREES

These are small trees that normally do not reach a large height or trunk diameter. Most can be planted beneath power lines and in parking strips up to four feet wide. Typical spacing between Class I trees is twenty feet. 25 Feet

BOTANICAL AND COMMON NAME	HEIGHT	SPREAD	GROWTH RATE	REMARKS
<i>Acer campestre</i> Hedge Maple	25'	25'	Slow	A small tree that withstands urban conditions and is long lived. Foliage is dark green on top and fuzzy underneath. Leaves turn yellow and remain late into autumn.
<i>Acer ginnala</i> Amur Maple	15'	10'	Medium	Fall color is red to orange. Very cold hardy.
<i>Acer grandidentatum</i> Bigtooth Maple	25'	15'	Slow	This maple is native to our canyons and is adapted to our climate. Foliage turns brilliant red in the fall. Selections of tree-like forms should be used for street plantings.
<i>Acer griseum</i> Paperbark Maple	25'	20'	Slow	A graceful tree with cinnamon-colored bark that peels away to reveal reddish brown shades. Fall color is reddish brown.
<i>Acer tataricum</i> Tatarian Maple	20'	15'	Slow to Medium	Red winged seeds appear in summer and add interest to the tree. Fall color is yellow/orange. Adaptable to different soil conditions.
<i>Aesculus pavia</i> Red Buckeye	20'	25'	Medium	Similar in appearance to the Horsechestnut, this tree is distinguished by its small size and red flowers.
<i>Cercis Canadensis</i> Eastern Redbud	25'	25'	Medium	Trunk is usually branched at the base with ascending branches and bright pink flowers in early May. Heart shaped leaves. Not a long lived tree.
<i>Crataegus phaenopyrum</i> Washington Hawthorn	25'	25'	Medium	Leaves emerging in spring are reddish-purple changing to glossy dark in summer. Flower display beginning in May while fruit sets in late summer and colors bright red in September.
<i>Crataegus laevigata</i> English Hawthorn	15'	15'	Slow	This Hawthorn has attractive flowers, fruit and growth habit. It grows with very few thorns. Choose nursery stock with a strong central leader for best results along streets.
<i>Crataegus crusgalli</i> 'inermis' Cockspur Hawthorn	20'	20'	Slow	This is a thornless variety of Hawthorn that is native to the eastern U.S. Glossy deep green foliage with persistent red fruit. A good choice for locations near power lines.
<i>Koelreuteria paniculata</i> Goldenraintree	25'	20'	Fast	Large hanging yellow flowers in summer and papery lantern-like seed pods make this tree quite unique. Fall color is crimson, bronze.
<i>Malus spp.</i> Flowering Crabapple	25'	20'	Fast	A very popular group of trees with varying degrees of white or red flowers. "Spring Snow" is a fruitless variety.
<i>Prunus virginiana</i> 'Canada Red' Canada Red Cherry	25'	20'	Medium	Leaves emerge green and turn purple as the season progresses. Good natural branching characteristics. Suckering often occurs following establishment.
<i>Syringa reticulata</i> Japanese Tree Lilac	25'	15'	Medium	Stiff branches and reddish-brown bark. Attractive fragrant summer flowering.
<i>Prunus serrulata</i> Flowering Cherry	25'	15'	Medium	Vase shaped branching and beautiful floral display are characteristics of this tree. Deep green foliage is attractive in spring and summer. Drought tolerant.
<i>Prunus cerassifera</i> Flowering Plum	20'	15'	Medium	Pink flowers emerge before the leaves each spring. Foliage is deep purple. Usually fruitless.

## CLASS II TREES

Class II trees are usually considered medium sized and are normally planted for their shade and aesthetic contribution. These trees are not for planting under power lines or in parking strips less than six feet wide. Typical spacing between this class of tree is thirty feet.

BOTANICAL AND COMMON NAME	HEIGHT	SPREAD	GROWTH RATE	REMARKS
<i>Acer platanoides</i> Norway Maple	45'	35'	Medium	Dark green summer foliage, can turn yellow in fall. A very popular and well-known tree casting dense summer shade. Many different varieties are available.
cv. 'Columnare' Columnar Norway Maple	40'	15'	Medium	A dense, columnar variety of the species.
cv. 'Cleveland' or 'Emerald Queen'	45'	30'	Fast	Upright oval-headed form with superior branching habit.
cv. 'Globosum' Globe Norway Maple	20'	20'	Slow	Low crowned form of the species. Good for use near overhead utility wires.
<i>Acer pseudoplatanus</i> Sycamore Maple	30'	25'	Medium	A tree with very similar characteristics as the Norway Maple. Leaves resemble the leaves of the American Sycamore.
<i>Acer nigrum</i> Black Maple	45'	25'	Slow	Similar in characteristics to the Sugar Maple but more tolerant of climatic conditions in Provo. Foliage has a drooping form and fall color is good.
<i>Aesculus x carnea</i> Red Horsechestnut	40'	35'	Slow	This tree is valued for its flowering in the spring. More heat and drought tolerant than most other Horsechestnuts.
<i>Aesculus octandra</i> Yellow Buckeye	40'	25'	Slow	Symmetrical and attractive tree.
<i>Celtis occidentalis</i> Common Hackberry	45'	35'	Fast	Stately tree with a straight trunk and bright green foliage turning yellow in the fall. A reliable tree under windy conditions. Vase shaped form.
<i>Pyrus calleryana</i> Flowering Pear	30'	25'	Fast	An outstanding flowering tree with glossy leaves that turn scarlet in the fall. Spring flowering is white.
cv. 'Aristocrat'	40'	28'	Fast	Grows fast; pyramidal form.
cv. 'Chanticleer'	40'	16'	Fast	More compact and upright; fall color is red-purple.
<i>Fraxinus pennsylvanica</i> Green Ash	60'	40'	Fast	This tree is extremely hardy and grows under many different conditions. Reliable and tough in the urban landscape.
cv. 'Marshall Seedless'	45'	35'	Fast	Seedless variety of green ash.
cv. 'Patmore'	55'	45'	Fast	Crown is more broad than Marshall.
cv. 'Urbanite'	35'			
<i>Ginkgo biloba</i> Maidenhair Tree		35'	Medium	Distinctive fan-shaped light green leaves are soft in appearance. Autumn color is bright yellow. Ginkgo is one of the most ancient trees on earth.
cv. 'Princeton Sentry'				
cv. 'Autumn Gold'				

## CLASS II TREES *continued*

BOTANICAL AND COMMON NAME	HEIGHT	SPREAD	GROWTH RATE	REMARKS
<i>Gleditsia triacanthos inermis</i> Honeylocust  cv. 'Shademaster' cv. 'Skyline' cv. 'Sunburst'	45'	40'	Fast	A hardy tree with finely textured leaves. Produces filtered shade. Tolerant of salt, heat, drought, and other urban stresses.
<i>Gymnocladus dioica</i> Kentucky Coffeetree  cv. 'Expresso'	55'	30'	Medium	Open spreading tree that is tolerant of drought, heat, and wind. Seed pods may become a maintenance consideration.  Mostly seedless, more vase-shaped than the species.
<i>Morus alba</i> White Mulberry	35'	30'	Medium	Tolerant of heat and alkaline soil. Select only fruitless varieties as fruiting mulberries produce fruit that stains sidewalks and cars.
<i>Metasequoia glyptostroboides</i> Dawn Redwood	70'	35'	Fast	Fern-like foliage gives this tree a fine texture. Bark is reddish-brown and scaly. Lower limbs must be removed on trees planted in parking strips.
<i>Phellodendron amurense</i> Amur Corktree  cv. 'Macho'	40'	30'	Fast	Interesting furrowed bark. Canopy casts filtered shade. Thrives under urban conditions. Tolerant of dry soils.  This seedless form has good growth characteristics.
<i>Sorbus aucuparia</i> European Mountain Ash	25'	20'	Medium	An ornamental tree with white flowers in summer followed by orange berries in the fall and winter.
<i>Sophora japonica</i> Japanese Pagoda	35'	30'	Fast	Round headed tree with yellow flowers in clusters in late August. Tolerant of urban conditions. Fruit may become a maintenance consideration.
<i>Aesculus glabra</i> Ohio Buckeye	30'	30'		
<i>Carpinus betulus</i> European Hornbeam  cv. 'Fastigiata'	40'	30'	Medium	An exceptional tree for street planting. Formal appearance and seldom needs pruning. Fall color is yellow/orange. Bark is smooth gray. More compact and narrow than the natural forms.
<i>Cladastis kentukea</i> Yellowwood	40'	40'	Medium	Tolerant of many soil conditions. Fragrant white flowers in May.
<i>Fagus sylvatica</i> European Beech  cv. 'Asplenifolia'  cv. 'Autropunica'  cv. 'Riversii'  cv. 'Roseo-Marginata'	30'	25'	Slow	Dark green to purple glossy foliage. Bark is smooth gray. <i>Variety 'Pendula' should be <u>not</u> planted in parking strips.</i>  Cut leaf variety that is fern-like and gold-brown in the fall.  Has purplish-bronze or copper-colored leaves.  Dark purple leaves that turn bronze in the fall.  Leaves are green-edged with pink and cream colors.

## CLASS III TREES

Many of these trees are long-lived and attain large height and trunk diameter. When selecting a tree from this class, be sure you have ample room to accommodate it at maturity. These trees are not for planting under power lines or in parking strips less than 10 feet wide. Typical spacing between Class III trees is 40-50 feet.

BOTANICAL AND COMMON NAME	HEIGHT	SPREAD	GROWTH RATE	REMARKS
<i>Catalpa speciosa</i> Northern Catalpa	60'	40'	Fast	A fast growing tree with heart-shaped leaves and conspicuous white flowers in June. Can withstand hot, dry conditions. Fruit is a long pod.
<i>Fagus grandiflora</i> American Beech	60'	55'	Slow	Thin, smooth gray bark. Very similar to the European Beech but larger and has bigger leaves. Golden bronze fall color.
<i>Liquidambar styraciflua</i> Sweetgum	60'	45'	Fast	Glossy green star-shaped leaves turn yellow in the fall. Twigs have cork-like bark. Fruit is a spiny ball that may be a maintenance concern.
<i>cv. 'Moraine'</i>				Hardy variety with fast growth and red fall color.
<i>Liriodendron tulipifera</i> Tulip Tree	80'	45'	Fast	A large tree of the Magnolia family. Flowers born high in the tree. Leaves are bright green and resemble a tulip. It's fast growth can lead to weak wood.
<i>Quercus bicolor</i> Swamp White Oak	50'	35'	Medium	An open-headed tree that is excellent for moist or wet soils. Foliage is green on top and dusty white on bottom. Leaves turn brown in the fall.
<i>Quercus macrocarpa</i> Bur Oak	70'	65'	Slow	A grand tree with large lobed leaves. Adaptable to a wide range of conditions and is tolerant of dry soils, air pollution and temperature extremes. A valuable tree for urban wildlife.
<i>Quercus robur</i> English Oak	55'	45'	Fast	A stately tree with small lobed leaves. Thick bark is furrowed and gray. Tolerant of many soil conditions. A long-lived tree.
<i>cv. 'Fastigiata'</i>				Upright, columnar form of the species.
<i>Quercus rubra</i> Northern Red Oak	50'	45'	Medium	A strong tree with dense green foliage that turns to red in the fall. A valuable tree for urban wildlife.
<i>Tilia Americana</i> American Linden	55'	35'	Medium	Large, heart-shaped leaves cast dense summer shade. Fragrant flowers appear in the summertime.
<i>cv. 'Redmond'</i>				A pyramidal form and fast growth.
<i>Tilia cordata</i> Littleleaf Linden	45'	40'	Medium	A compact pyramidal tree with sturdy upright growth. More heat and drought tolerant than other Lindens. Dense foliage produces dense summertime shade.
<i>cv. 'Chancellor'</i>				Upright narrow form that is dense and symmetrical.
<i>cv. 'Glenleven'</i>				Larger leaves and more spreading than the species.
<i>cv. 'Greenspire'</i>				
<i>cv. 'Corzam'</i>				Columnar form with smaller, thicker leaves.
<i>Tilia tomentosa</i> Silver Linden	60'	40'	Medium	White underside of leaves give this tree its name. Tolerates heat and drought well. Trunk is smooth and gray.
<i>cv. 'Green Mountain'</i>				Rapidly growing tree that is heat and drought tolerant.
<i>cv. 'Sterling'</i>				Excellent form and resistant to leaf eating insects.

## CLASS III TREES *continued*

BOTANICAL AND COMMON NAME	HEIGHT	SPREAD	GROWTH RATE	REMARKS
<i>Platanus x acerifolia</i> London Planetree	90'	60'	Fast	A towering tree with strong roots and branches. Bark peels off in patches. Hardy and attractive in winter.
<i>cv. 'Bloodgood'</i>				A common disease-resistant form.
<i>Ulmus parvifolia</i> Lacebark Elm	50'	30'	Medium	The tree has flaky bark and smaller leaves than American Elm. Is often confused with Siberian Elm, which is <i>not</i> approved for planting in parking strips.
<i>cv. 'Ohio'</i>				More cold hardy than the species.
<i>Zelkova serrata</i> Japanese Zelkova	70'	70'	Fast	A handsome, vase-shaped member of the Elm family. Fall color is yellow/orange. Adaptable to different soil conditions and tolerant of drought and wind.
<i>cv. 'Halka'</i>				Resembles American Elm.
<i>cv. 'Green Vase'</i>				Rapid growth and good vase-shaped form.
<i>cv. 'Village Green'</i>				Rapid growth and insect resistant.
<i>Aesculus hippocastanum</i> Common Horsechestnut	60'	45'	Medium	Casts dense summertime shade. Showy flowers in May.
<i>cv. 'Baumannii'</i>				Long-lasting flowers and seedless.

## ***TREES NOT RECOMMENDED FOR STREET PLANTING***

The following species should not be planted in any parking strip in American Fork. These trees exhibit characteristics including but not limited to: extreme insect or disease susceptibility, soft or brittle wood and/or limited cold or head hardiness. Such problems often lead to excessive maintenance costs, hazards to other trees and potential public safety hazards.

<b>BOTANICAL AND COMMON NAME</b>	<b>REMARKS</b>
<i>Acer negundo</i> Boxelder Maple	Soft wood that is subject to decay. Harbors Box Elder bugs which are a nuisance.
<i>Acer saccharinum</i> Silver Maple	Becomes chlorotic in our local soils. Soft wood and decay problems.
<i>Ailanthus altissima</i> Tree of Heaven	Very brittle wood and weak branching. Seeding makes this tree invasive.
<i>Eleagnus angustifolia</i> Russian Olive	Thorns, fruit and growth habit are unsuitable for street tree use.
<i>Gleditsia triacanthos</i> Thorned Honeylocust  cv. 'Sunburst'	Hazardous thorny branches. Messy seed pods. Select thorneless varieties of Honeylocust for planting along city streets.  Susceptible to many pests.
<i>Populus</i> Cottonwood, Aspen and Poplars	Trees in this family have soft wood and are subject to decay. Shallow roots.
<i>Robinia pseudoacacia</i> Black Locust	Extremely susceptible to boring insects. Brittle wood.
<i>Salix</i> Willow	Soft wood subject to decay. Shallow roots. Aphids.
<i>Ulmus pumila</i> Siberian Elm	Brittle wood and weak branching. Invasive spread from seeding.
Evergreens	Block clear vision between pedestrians and vehicle traffic. Often spread too wide for parking strips.
Orchard Trees	Fruit dropped on sidewalks can be hazardous to pedestrians and a maintenance concern.