

RESOLUTION NO. 2020-40

**A RESOLUTION OF THE TOWNSHIP OF FERGUSON, CENTRE COUNTY, PENNSYLVANIA
AMENDING RESOLUTION 2014-24 AND RESOLUTION 2015-29 AND ESTABLISHING A
REVISED APPROVED LIST OF TREE SPECIES, CULTIVARS AND HYBRIDS FOR STREET
AND PARK PLANTING**

The Ferguson Township Board of Supervisors hereby resolves to create an approved list of street and park tree planting species, cultivars and hybrids and further establishing the appropriate planting spacing and preferred planting season for each variety and restricting the locations for certain planting varieties.

Whereas, many tree species, cultivars, and hybrids are provided in this planting list. Tree cultivars, or cultivated variety, provide the desired traits of a tree species, such as fall color or drought resistance, and are usually propagated through cuttings, grafting and tissue culture. Hybrids are trees that are bred from two different species to form a new species. The trees in this planting list are proven to be good performers in differing street and park landscapes. Two excellent references for tree selection are:

Dirr, M. A. 2009. *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation, and Uses*. Champaign, Illinois: Stipes Publishing Company.

Gerhold, H.D., W.N. Wandell., and N.L. Lacasse. *Landscape Tree Factsheets: Including Evergreens for Screens*. University Park, Pennsylvania: The Pennsylvania State University College of Agricultural Sciences.

Whereas, restrictions on the planting of certain trees have been provided as *Note(s)* at the end of the tree's description and separate lists that summarize trees that require the permission of the Public Works Director for planting, trees to be planted in full or partial shade, trees recommended for sidewalk and parking lot cutouts, trees to be planted under utility lines and trees that should not be planted are provided at the end of the document, and

Whereas, the Township of Ferguson has adopted REGULATIONS AND STANDARDS FOR ARBOR WORK which provide direction on tree care and planting procedures.

Further, the Ferguson Township Board of Supervisors has established the following approved tree species for planting as street and park trees:

TREES FOR LARGE LANDSCAPE AREAS (TREES OVER 45' IN HEIGHT)

Large landscape trees require planting areas a minimum of 5' wide. Trees should be spaced no less than 25 and no more than 30' apart and should be planted a minimum of 2.5' away from any concrete curb, sidewalk, or patio. Soils must be a minimum of 3 to 4' in depth. These trees require adequate space for canopy growth and should not be planted underneath power lines or within 10' of any driveway, streetlight, or utility lateral, curb box, or clean out.

Acer rubrum- Red Maple

This fast growing tree reaches 50 to 75' in height with a somewhat smaller spread. It is a colorful tree year round with enjoyable bark and brilliant red and yellow fall color. The tree and other maples can have somewhat shallow root systems. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Avoid fall planting. May be susceptible to verticillium wilt.*

Cultivars of Red Maple: 'Autumn Flame'- (better limb structure than some cultivars); 'Bowhall' (upright growth habit, good for narrower spaces); 'October Glory'- (one of the best cultivars for fall color); 'Red Sunset' (good fall color, susceptible to salt spray)

Hybrid Maples

A genetic cross between red and silver maple, these trees grow quickly where space is ample reaching 50 to 70' in height with a somewhat smaller spread. Leaves are typically the color of red maple, and offer enjoyable red and yellow fall color. Although tolerant of a large variety of soil conditions, they prefer slightly acidic soils. They have somewhat shallow root system. Tough urban trees that transplant and grow well on poorer sites. *Note: Susceptible to verticillium wilt.*

Types of Hybrid Maples: A. xfreemani 'Autumn Blaze'- (branching structure and color of red maple, rapid growth); A. xfreemani 'Celebration'- (branching structure and color of red maple rapid growth, tolerant of limestone soils, fall planting hazard); A. xfreemani 'Scarlet Sentinel'- (upright form, avoid fall planting)

Betula nigra 'Heritage'- River Birch

This medium to fast growing tree reaches 40 to 70' in height with a slightly smaller spread. It offers interesting drooping branches and flakey bark. The tree is a very handsome specimen and is the most trouble free and toughest of all birches in terms of insect and disease problems. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil.*

Carya glabra- Pignut Hickory

This large tree grows to heights of 50 to 80' with a spread of 25 to 40'. It prefers well drained soils and full sun to part shade. Does not produce fruit until approximately 25 years of age. *Note: No serious insect or disease problems.*

Carya laciniosa- Shellbark Hickory

This large tree reaches heights of 60 to 80' with a smaller spread. It prefers medium to wet soils and full sun to part shade. Similar in appearance to the ShagBark Hickory. Produces the largest fruit of all hickories. *Note: No serious insect or disease problems. Not normally stocked by nurseries.*

Carya ovata- Shagbark Hickory

This large tree grows 70 to 90' in height with a slightly smaller spread. Prefers well drained soils in full sun to part shade. Exfoliating bark on mature trees is a point of interest. Good fall color. *Notes: No serious insect or disease problems. Can produce a large quantity of leaf litter when mature.*

Carya tomentosa- Mockernut Hickory

This large tree reaches heights of 60 to 80' with a spread of 40 to 60'. Prefers moist soils and full sun. Does not produce fruit until approximately 25 years of age. *Note: Large trees can produce a large accumulation of litter including leaves, twigs and fruit.*

Catalpa speciosa- Catalpa

This fast to medium growing tree reaches 40 to 60' in height with a smaller spread. Leaves are very large 6 to 12", medium green in summer changing to yellow or brown in fall. Fruit is a 10 to 20' long 'cigar' type capsule. Very tolerant of difficult soils including limestone/alkaline soils. In open landscapes can be subject to lightning strike.

Celtis occidentalis 'Prarie Pride'- Prarie Pride Hackberry

This medium to fast growing tree reaches 40 to 60' in height with an equal spread. Leaves are light green in summer and yellow to yellow-green in fall. Tolerant of acid or alkaline soils. The tree transplants and grows well on adverse urban sites. *Notes: Avoid fall planting. May be difficult to locate.*

Eucommia ulmoides- Hardy Rubber Tree

This medium growing tree reaches 40 to 60' in height with an equal or greater spread. Leaves are lustrous dark green in summer and fall color is non-existent as leaves fall green. The tree withstands a variety of soils, drought, and partial shade. It is an excellent urban tree with few if any pest problems. *Note: May be difficult to locate nursery stock.*

Ginkgo biloba- Ginkgo

This slow growing tree reaches 50 to 80' in height with a variable crown form dependent on cultivar (spreading to upright). It has an interesting leaf with excellent yellow fall color. Mature trees have excellent structure and branch strength. They will grow in many soils and urban situations and are pH adaptable and extremely pest free. An excellent urban tree. *Notes: Because of the unpleasant odor of female fruit, only "certified" male varieties should be planted.*

Cultivars of Ginkgo: 'Autumn Gold'- (a good urban tree); 'Lakeview'- (upright growth form, good for narrow spaces); 'Princeton Sentry'- (upright growth form, good for narrow spaces)

Gleditsia triacanthos- Thornless Common Honeylocust

This fast growing tree reaches 40 to 60' in height with equal spread. They have small leaves that are bright green in summer and yellow in fall. One of the most adaptable trees ever used in landscapes, they withstand a wide variety of soil conditions, are adaptive to pH and urban conditions, and are the most salt tolerant of all landscape trees. *Note: Insect problems, such as plant bug and locust leaf miner, are becoming a concern.*

Cultivars of Thornless Common Honeylocust: 'ShadeMaster'- (somewhat upright form, reduced fruiting, plant in full sun); 'Skyline'- (less susceptible to plant bug, plant in full sun)

Gymnocladus dioicus- Kentucky Coffee Tree

This tree grows rapidly after establishment reaching 60 to 75' in height with a somewhat smaller spread. It is one of last trees to leaf out in spring. Leaves are medium green in summer changing to yellow or brown in fall. The tree has handsome bark and interesting limb characteristics in winter. Adaptable to a wide range of soil and site conditions with no serious insect or disease problems it is an excellent urban tree. *Notes: Large seed pods can be a problem. Plant "certified" male variety ('Espresso') only in full sun. Requires large planting area.*

Liquidambar styracflua- Sweetgum

This medium to fast growing tree with an upright form reaches 60 to 75' in height with a somewhat smaller spread. They have beautiful green leaves in summer changing to yellow-purple-red in fall. Excellent fall color. *Notes: Intolerant of limestone/alkaline soils and requires acid soil. Fruit may cause litter problem. Avoid fall planting. Plant in full sun.*

Cultivar of Sweetgum: 'Rotundiloba'- (more upright growth form, fruitless, plant in full sun)

Larix laricina- American Larch

This tree reaches 40 to 80' in height with a spread of 15 to 30'. It is a deciduous conifer whose needles turn a showy yellow in the fall before dropping. Prefers moist soils and full sun. *Note: Insect problems include larch looper and larch sawfly.*

Liriodendron tulipifera- Tulip Tree

This very large and magnificent tree is referred to as the "redwood of the east." It is the tallest growing eastern hardwood reaching 70 to 90' in height with a smaller spread. Fall color can be a spectacular yellow. It is adaptable to pH, but prefers slightly acidic soils. It can be slow in establishment in terms of root development. Slightly weak wooded, but perhaps stronger than most people give credit for. *Notes: Plant in full sun.*

Magnolia acuminata- Cucumber Tree

This tree has a somewhat upright form and grows rapidly 50 to 80' in height with the same spread. It has very large 10" leaves which are dark green in summer and green to brown in fall. Tolerant of limestone/alkaline soils. *Notes: Susceptible to verticillium wilt.*

Metasequoia glytostroboides – Dawn Redwood

This fast growing tree has an upright canopy form and reaches 70 to 100' with a smaller spread. Leaves resemble hemlock and are bright green in fall changing to brown or orange-brown in fall. It has limited insect and disease problems. A unique and lovely ornamental. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. May require irrigation when young on dry sites. Plant in full sun.*

Nyssa sylvatica – Blackgum

This slow to medium growing tree has an upright form reaching 30 to 50' in height with a somewhat smaller spread. Leaves are deep green in summer changing to scarlet-purple in fall. One of the best trees for fall color. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Difficult to transplant and may require irrigation when young on dry sites.*

Platanus X acerifolia- London Plane Tree 'Bloodgood'

This medium growing tree is large and broadly spreading reaching 70 to 100' in height with a somewhat smaller spread. The tree has no fall color, but it offers interesting and handsome bark and limb structure during winter. It has extremely strong branching habits and is resistant to many insect and disease problems such as anthracnose. Tolerant of high pH soils, poor soils, and pollutants; it is a tough urban tree. *Note: Fruit and bark may cause litter problem.*

Platanus occidentalis- Sycamore

This large tree grows 75 to 100' in height with a similar spread. Prefers moist soils and full sun, but generally tolerant to most urban conditions. Brown outer bark exfoliates showing white inner bark each year. Fruiting balls normally ripen to brown in the fall before falling off. *Notes: Susceptible to sycamore anthracnose. Lawn clean up can be an issue due to fruit, bark, and leaves.*

Populus grandidentata- Bigtooth Aspen

This fast growing tree reaches heights of 50 to 70' with a spread of 20 to 40'. It prefers moist soils and full sun. Leaves turn to a yellow color in the fall. *Notes: Aggressive rooting tree, conflicts with sidewalks may be an issue.*

Prunus serotina- Black Cherry

This large tree reaches 50 to 80' in height with a smaller spread. It produces a showy white flower in the spring that gives off a pleasant scent. Presents a nice fall color. *Note: susceptible to most problems associated with other cherries.*

Quercus alba- White Oak

This tree reaches 50 to 80' in height with a similar spread. Prefers moist soils and full sun, but adapts to most soil conditions. Drought tolerant. In fall leaves turn shades of deep red. Slow growing tree. *Note: Susceptible to oak wilt, anthracnose, and oak leaf blister.*

Quercus bicolor- Swamp White Oak

The medium growing tree reaches 50 to 60' in height with an equal or greater spread. It can have purple fall color, but usually fall color is yellow. The tree has a strong and interesting branching habit. Transplants and grows better than white oak and can be used as a substitute in urban landscapes. Extremely drought tolerant. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Avoid fall planting.*

Quercus coccinea- Scarlet Oak

This large tree grows 50 to 70' in height with a spread of 40 to 50'. Prefers dry, sandy soils and full sun. Leaves turn a showy scarlet color in the fall. *Note: Does not exhibit chlorosis problems like the closely related pin oak.*

Quercus imbricaria- Shingle Oak

This slow growing tree reaches 50 to 60' in height with an equal or slightly larger spread. Leaves are deep green in summer changing to yellow-brown in fall. Easier to transplant than many oaks. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Avoid fall planting.*

Quercus macrocarpa- Bur Oak

This slow growing tree reaches 70 to 80' in height with an equal or slightly larger spread. Leaves are deep green in summer changing to yellow-brown in fall. Tolerant of limestone/alkaline soils. A very large and impressive landscape tree. *Notes: Difficult to transplant and may require irrigation when young on dry sites. Avoid fall planting.*

Quercus muehlenbergi- Chinkapin Oak

This medium growing tree reaches 40 to 50' in height with a smaller spread. Leaves are dark yellow green in summer changing to orange brown in fall. It has an open, rounded crown. No particular insect or disease problems. Prefers acid soils and reaches largest size in rich, deep soils. An attractive ornamental tree.

Quercus palustris- Pin Oak

This fast growing tree reaches 60 to 70' in height with a smaller spread. Leaves are dark green in summer changing to bronze or red in fall. It has a strongly pyramidal form changing to more oval in older trees. Somewhat tolerant of urban conditions, it is the most widely planted oak. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Relatively free of insect and disease problems, but bacteria leaf scorch and oak wilt are concerns. Because of low branching habit and large size should only be planted in large landscape areas.*

Quercus phellos- Willow Oak

This medium growing tree reaches 40 to 60' in height with a similar or somewhat smaller spread. Leaves are bright green in spring changing to yellow and dull red in fall. Mature trees have an attractive oval canopy form. Prefers moist, slightly acidic soil, but can grow on very tough sites. Essentially pest and disease free. An attractive street and park tree. *Note: Depending on climate, may be deciduous or semi-evergreen.*

Quercus prinus- Chestnut Oak

This large tree reaches heights of 50 to 70' with a similar spread. Adapts to a wide range of soil conditions and is drought tolerant. Generally a low maintenance tree. *Note: is susceptible to oak wilt.*

Quercus rubra- Northern Red Oak

This fast growing tree reaches 60 to 70' in height with an equal spread. A russet-red fall color is often not outstanding. It has excellent limb structure and strength. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Relatively free of insect and disease problems, but bacteria leaf scorch and oak wilt are concerns.*

Quercus shumardii- Shumard Oak

This fast growing tree reaches 60 to 70' in height with an equal spread. A russet-red fall color is often not outstanding. It has excellent limb structure and strength. Adaptable to urban pollutants and relatively free of insect and disease problems. Performs better on limestone/alkaline soils than red oak and can be used as a substitute.

Robinia pseudoacacia 'Purple Robe'- Purple Robe Black Locust

This fast growing tree reaches a height of 50' with a slightly greater spread. The tree offers exceedingly fragrant, pretty, dark rose-pink flowers in May with a yellow-green fall color. Extremely tolerant of varied soils, pollution, salt, and climates. *Notes: Locust borer and plant bug can be insect problems. Limb breakage in storms is a concern.*

Taxodium distichum- Baldcypress

This medium growing tree has an upright growth form and reaches 50 to 70' with a smaller spread. Similar in appearance to dawn redwood, leaves are bright green in spring changing to a soft brown in fall. It has limited insect and disease problems. It is a distinctive specimen tree. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. May require irrigation when young on dry sites. Plant in full sun.*

Tilia americana- American Linden or Basswood

This medium growing tree has a somewhat upright growth form and reaches 60 to 80' in height with a smaller spread. Leaves are dark green above and lighter green below changing to greenish-yellow in fall. Tolerant of a range of soil conditions. A handsome native tree.

Note: Susceptible to verticillium wilt and Japanese beetles.

Cultivar of American Linden: 'Redmond' (fast growing tree with more upright form)

Tilia cordata- Littleleaf Linden

This medium growing tree with a distinct pyramidal form reaches 60 to 70' in height with a smaller spread. The tree offers yellow, fragrant flowers June or July. Leaves are dark green changing to yellow-green in fall. It is tolerant of urban pollution, soil compaction, and limestone/alkaline soils. *Notes: Flowers can attract bees. Susceptible to aphids which cause honeydew and sooty mold. Should not be planted in downtown sidewalks or other sites where heat, drought, or deicing salts are a concern.*

Cultivars of Littleleaf Linden: 'Glenlevin' (distinct pyramidal form); 'Greenspire' (distinct pyramidal form)

Tilia tomentosa 'Sterling'- Silver Linden

This medium growing tree reaches 50 to 70' high with a smaller spread. It is pyramidal when young, remaining pyramidal or oval at maturity. It has interesting, shimmering leaves that are green above and silver below. Leaves can have yellow fall color. It is tolerant of urban pollution, soil compaction, and limestone/alkaline soils. It is more tolerant of drought and heat than other lindens. A beautiful ornamental tree.

Zelkova serrata "Village Green" and 'Halka'- Zelkova

These fast growing cultivars are hardier than trees of Japanese origin reaching 50 to 80' in height with an equal spread. They have dark green leaves in summer turning rusty-red in fall. Adaptable to soil compaction, pH, and drought, they are tough urban trees planted as a substitute for American elm. *Notes: The cultivar 'Halka' has a shape more similar to American elm and less branch breakage during storms.*

TREES FOR MEDIUM LANDSCAPE AREAS (TREES 30 TO 45' IN HEIGHT)

Medium growing landscape trees require planting areas a minimum of 4' wide. Trees should be spaced 20' apart, and the trees must be planted 2' away from any concrete curb, sidewalk, or patio. Soils must be a minimum of 3 to 4' in depth. These trees require adequate soil for root growth and space for canopy growth.

Acer truncatum x A. Platanoides 'Warrenrod'- Pacific Sunset Maple

This fast growing tree reaches 30 to 40' in height with a somewhat smaller spread. Leaves are dark green in the summer changing to orange-red to bright red fall in the fall. It tolerates a wide range of soils and pH, heat, drought, pollutants, and partial shade. A very lovely small maple.

Aesculus c carnea 'Briotii'- Ruby Red Horsechestnut

This medium growing tree reaches 30 to 40' with a slightly smaller spread. The tree offers beautiful red flowers in May. Leaf color is dark green in summer changing to a poor yellow or brown in fall. It is adaptable to pH. *Notes: Not tolerant of heat or drought. Leaves will brown in late summer if exposed to full western sun. Can be difficult to find.*

Betula lenta- Sweet Birch

This medium sized tree grows to 40 to 55' tall with a slightly smaller spread. Prefers moist, slightly acidic soils. Leaves turn a nice yellow color in the fall. *Note: Resistant to bronze birch borer.*

Cladrastis kentukea- American Yellowwood

This medium growing tree reaches 30 to 50' in height with a similar spread. It offers beautiful bark and fragrant white flowers in May to early June. Leaves open yellow and change to bright green in summer and yellow to golden yellow in fall. The tree tolerates acidic and alkaline pH. An excellent tree for flowers and foliage, it is a choice selection for smaller areas. *Notes: Poor branching structure may split during storms. Prefers full sun.*

Gleditsia triacanthos 'Imperial'- Thornless Common Honeylocust

This fast growing tree reaches 30 to 35' in height with equal spread. It withstands a wide variety of soils, is adaptive to pH and urban conditions, and is one of the most salt tolerant of all landscape trees. It is one of the most adaptable native trees ever used in landscapes. *Note: Insect problems, such as plant bug and locust leaf miner, are becoming a concern.*

Halesia carolina- Carolina Silverbell

This small to medium tree reaches heights of 30 to 40' with a spread of 20 to 35'. Prefers moist soil and part shade but can tolerate full sun. Produces white, bell shaped flowers in April. Leaves turn an attractive yellow in the fall, but may drop early. *Notes: No serious insect or disease problems. Can be chlorotic in high ph soils.*

Ostrya virginiana- American Hophornbeam or Ironwood

This slow growing tree reaches 25 to 40' in height with a similar spread. Leaves are dark green in summer changing to yellow in fall. A handsome urban tree. *Notes: Sensitive to salt, drought, and compacted soils.*

Oxydendrum arboreum- Sourwood

This tree reaches heights of 20 to 50' with a small spread. Prefers well drained soils and full sun. Produces showy white flowers from June to July. Leaves turn a beautiful crimson in the fall. Intolerant of urban pollution. *Notes: Tolerates some shade, with diminished flowering. No serious insect or disease issues.*

Populus tremuloides- Quaking Aspen

This medium sized tree reaches heights of 35 to 50' with a small spread. It adapts to a wide range of soil and shade conditions. *Note: Generally short lived, many insect and disease problems.*

Prunus sargentii- Sargent Cherry

This medium growing tree reaches 30 to 40' in height with an equal spread. The tree offers showy pink flowers April to May. Leaves are an excellent shiny green in summer changing to bronze or red in fall. The tree is adaptable to different soils and planting sites, but short lived. *Notes: Avoid fall planting. Plant in full sun.*

Cultivars of Sargent Cherry- 'Columnar' (much more upright growth form); 'Snow Goose' (smaller height and spread)

Prunus serrulata- 'Kwanzan'- Japanese Flowering Cherry

This medium growing tree reaches 30 to 40' in height with a somewhat smaller spread. It offers showy white to pink flowers April to May famous in Washington, D.C. It is one of the hardiest cherries, but still sensitive to pollution and several insects. Although relatively short lived, it provides great character and beauty. *Notes: Avoid fall planting. Plant in full sun.*

Quercus acutissima- Sawtooth Oak

This medium growing tree reaches 35 to 45' in height with great variation in spread. It has dark lustrous leaves in the summer that change to a good yellow or golden brown fall color. It has no serious insect or disease problems. A nice, wide spreading shade or lawn tree for small planting areas. *Notes: It can be grown over a wide variety of sites, but requires acidic soil.*

Sassafras albidum- Common Sassafras

This medium to fast growing tree reaches 30 to 60' in height with a smaller spread. The tree offers attractive pink flowers April to May. Leaves are dark green in summer changing to deep orange to scarlet and purple in fall. One of the best native trees for fall color. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil.*

TREES FOR SMALL LANDSCAPE AREAS (TREES UNDER 30' IN HEIGHT)

Small growing landscape trees require planting areas a minimum of 3' wide. Trees should be spaced 10' apart, and the trees must be planted 2' away from any concrete curb, sidewalk, or patio. Soils must be a minimum of 3 to 4' in depth. These trees require smaller amounts of soil for root growth and space for canopy growth. These trees can be planted near, but not adjacent, to buildings. They should be planted under utility lines.

Amelanchier sp.- Serviceberry

This small tree reaches 15 to 25' in height with a similar spread. Adapts well to most soil conditions, and produces a showy white flower before bud break in the spring. Leaves turn a nice fall color. *Note: Root suckers can be a problem if not maintained.*

Carpinus caroliniana- American Hornbeam or Muscle Wood

This slow growing tree reaches 20 to 30' in height and spread, often with multiple trunks. Leaves are dark green in summer changing to a nice yellow or orange-red in fall. The tree offers an interesting fluted bark. One of the only landscape trees that can perform well in full shade. *Note: Prefers slightly acidic, moister soils. Avoid fall planting. Plant in partial shade.*

Cercis canadensis- Eastern Redbud

This medium growing tree reaches 20 to 30' in height and spread, often with multiple trunks. It offers showy reddish-pink flowers which open in March to April. Fall color is usually a poor yellow-green, but can be an excellent yellow. It does well in many soils and light shade, but prefers moister soils. It is a beautiful, tough, and favorite native plant. *Notes: Relatively short lived. Performs best in partial shade.*

Cultivars of Eastern Redwood: 'Alba'- white flowering redbud (white flowers); 'Forest Pansy'- (leaves are reddish purple)

Cornus florida- Flowering Dogwood

This small tree grows to 15 to 30' in height with a similar spread. It prefers moist acidic soils and part shade. Produces a showy white flower in April, and provides a nice fall color. *Note: Suceptable to dogwood anthracnose and powdery mildew.*

Cornus kousa- Kousa Dogwood

The medium growing tree reaches 20 to 30' in height with the same spread. It flowers with creamy-white pointed bracts in early summer and has reddish purple to scarlet fall color. Not a good tree for tough planting sites, it prefers rich, acidic, and well drained soils. The tree offers beautiful flowers and foliage. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Avoid planting in fall. Performs best in partial shade.*

Cultivar of Kousa Dogwood: 'Rutcan' (flowers before Kousa)

Cornus mas- Cornelian Cherry Dogwood

Similar to kousa dogwood, the medium growing tree reaches 20 to 30' in height with the same spread. One of first trees to bloom in spring with small yellow flowers and a reddish purple to scarlet fall color. Not a good tree for tough planting sites, it prefers rich, acidic, and well drained soils. The tree offers beautiful flowers and foliage. *Notes: Performs poorly on limestone/alkaline soils and requires acid soil. Avoid planting in fall. Performs best in partial shade*

Crataegus punctata 'Ohio Pioneer'- Ohio Pioneer Hawthorn

This slow to medium growing tree reaches 20 to 25' in height with a similar spread. It offers large clusters of white flowers in spring, but little fall color. A dark red fruit ripens and drops in fall. The tree is resistant to fire blight and has a reduced number of thorns. A tough urban tree it tolerates a variety of soils and drought. *Notes: Avoid fall planting. Plant in full sun.*

Crataegus viridis 'Winter King'- Winter Green Hawthorn

This slow to medium growing tree reaches 25 to 30' in height with a similar spread. It offers clusters of white flowers in spring and yellow fall color. An abundant, red-orange fruit persists through winter. A tough urban tree, it tolerates a variety of soils and drought. *Notes: The tree can have problems with rust, and thorns can be a problem in some situations. Avoid fall planting. Plant in full sun.*

Other Hawthorns (many species): Crataegus crus-galli var. inermis- Thornless Cockspur Hawthorn; Crataegus phaenopyrum- Washington Hawthorn

Magnolia 'Galaxy'- Galaxy Magnolia

This slow growing tree reaches 20 to 30' in height with a smaller spread. Provides pink flowers May to June. Leaves are dark green in summer changing to yellow to bronze in fall. *Notes: Prefers full sun and acidic soils. Little insect or disease problems. Susceptible to verticillium wilt. Avoid fall planting. Plant single trunk only.*

Magnolia stellata- Star Magnolia

This slow growing tree reaches 15 to 20' in height with a somewhat smaller spread. Provides white flowers May to June. Leaves are dark green in summer changing to yellow to bronze in fall. Little insect or disease problems. *Notes: May not do well in full sun or exposed sites, plant in partial sun. Susceptible to verticillium wilt. Avoid fall planting.*

Magnolia virginiana- Sweetbay Magnolia

This semi-evergreen to deciduous tree reaches 10 to 20' in height with a similar spread. It offers attractive white, lemon scented flowers May to June and is often multi-stemmed with a spreading form. An attractive, graceful tree. *Note: Intolerant of limestone/alkaline soils and requires acid soil.*

Cultivars of Sweetbay Magnolia: 'Henry Hick'- (may remain evergreen in northern climates); 'Moon Glow'- (may remain evergreen in northern climates)

Malus- Crabapple

There are many cultivars of this tree available that are fast growing 10 to 30' in height with somewhat smaller spread. Depending on cultivar, they provide white, pink, or red flowers and red, orange, or yellow fruit. Although adaptable to many soil types and conditions, they prefer acidic soils. A tough urban tree. *Notes: Root suckers may need to be removed. Some cultivars are highly susceptible to apple scab, fireblight, and cedar-apple rust. Fruit can cause litter problem. Plant in full sun.*

Cultivars of Crabapple: 'Prairiefire'(resistant to disease, pink flowers); 'Sugar Tyme' (disease resistant, white flowers, good street tree)

Prunus 'Okame'- Okame Cherry

This medium growing tree reaches 20 to 30' in height with a similar spread. It offers pink flowers in early May. Leaves are green in summer changing to reddish purple in fall. More upright growth form than other cherries. *Note: Avoid fall planting.*

Prunus virginiana 'Shubert'- Common Chokecherry or Canada Red Cherry

This fast growing upright tree reaches 20 to 30' in height with a somewhat smaller spread. It provides white flowers April to May. Leaves are green in summer changing to reddish purple in fall. *Note: Avoid fall planting.*

Syringa reticulata 'Ivory Snow'- Japanese Tree Lilac

The tree grows 20 to 30' in height and 20 to 25' in spread. It can be considered either a small tree or large shrub. It offers white, lilac type flowers in early to mid-June which can look untidy after they have died. The tree is adaptable to soils and pH, but prefers slightly acidic, moist, and well drained soils. The most trouble free lilac. An excellent small tree and a good choice for extremely small planting areas. *Note: Plant in full sun for best flowering.*

CONIFERS FOR PARKS AND OTHER VERY LARGE PLANTING AREAS

Conifers provide larger stormwater management values than deciduous trees. They also provide color and interest in the winter. They are appropriate for very large planters or park landscapes.

Picea abies- Norway Spruce

This medium to fast growing spruce reaches 40 to 60' in height with a smaller spread. It offers a pyramidal form with graceful hanging branches. Prefers moist, sandy, acidic, and well drained soils, but can be successful in other fertile soils if moisture is adequate. *Notes: Young trees may require irrigation. Does not perform well in heavy shade.*

Pinus bungeana- Lacebark Pine

This slow growing pine reaches 30 to 50' with a smaller spread. The tree offers a broad spreading form and very attractive bark. It prefers sun and well drained soils. Tolerant of limestone soils. One of the most beautiful of ornamental pines.

Pinus rigida- Pitch Pine

This medium to slow growing pine reaches 40 to 60' in height with a somewhat smaller spread. Young trees offer a pyramidal form growing into an irregular, gnarled crown when mature. Tolerant of poor soils and able to survive the driest, sandiest, and most unproductive sites. Tolerant of salt and salt spray.

Pinus taeda- Loblolly Pine

This fast growing pine reaches 40 to 50' in height with a somewhat smaller spread. Young trees have a pyramidal form growing into an oval-rounded crown when mature. Easy to transplant and very adaptable to a wide variety of soils, but prefers acidic soil.

Pinus virginiana- Virginia or Scrub Pine

This slow growing pine reaches 15 to 40' in height with a somewhat smaller spread. Young trees offer an open pyramidal form growing into a straggling and scrubby form. Performs well in poor dry soils where other pines will not grow.

TREES REQUIRING PERMISSION OF PUBLIC WORKS DIRECTOR

Because of severe problems with certain soil types, insects and diseases, and tree structures, the following trees can only be planted on Township property with the permission of the Public Works Director.

PERMISSION REQUIRED: LARGE LANDSCAPE AREAS (TREES OVER 45' IN HEIGHT)

Acer saccharinum- Silver Maple

This fast growing tree has an upright growth form reaching 50 to 70' in height with a somewhat smaller spread. Fall color is limited to a green-yellow combination. Tolerant of a wide range of soil conditions, it is one of the easiest trees to transplant. A large growing tree with massive spreading branches that some people consider very beautiful. Shallow root system. *Notes: Because of the large size and problems with decay and branching habit in older trees, only plant in riparian areas or other large open spaces. Susceptible to verticillium wilt.*

Acer saccharum- Sugar Maple

This slow growing tree has a somewhat upright growth form reaching 60 to 75' in height with a smaller spread. It offers beautiful brilliant yellow, burnt orange, and red fall color. Somewhat adaptable to pH, but prefer slightly acidic soils. Beautiful large trees in fall color. *Notes: Poor street and parking lot trees, do not plant where heat, drought, soil compaction, or salt is common. Susceptible to verticillium wilt.*

Cultivars of Sugar Maple: 'Bonfire'- (broader crown); 'Green Mountain'- (more upright growth habit); 'Legacy'- (faster growing)

Ulmus Americana- American Elm

This medium to fast growing tree reaches 60 to 80' in height with a somewhat smaller spread. Leaves are lustrous green in summer changing to yellow in fall. The tree is famous for a classic multiple trunk and vase shape growth form, interesting bark, and a massive and interesting winter form. It transplants easily in a variety of soils, is pH adaptive, and drought resistant. *Notes: Because of poor limb attachment, large limbs can be lost on mature trees during severe weather. Over the past 25 years, researchers have been involved in selecting and breeding American elms for tolerance to Dutch Elm Disease (DED), and more recently elm yellows. Two cultivars, 'Valley Forge' and 'New Harmony' have exhibited good tolerance to DED, but are most likely susceptible to elm yellows. A number of cultivars from the Morton Arboretum, 'Accolade', 'Triumph', 'Danada Charm', and 'Commendation' are resistant to DED and may be resistant to elm yellows; although no documentation of this has been made. These trees should be planted selectively in very small numbers with permission of the Public Works Director until resistance to elm yellows is proven.*

Tsuga canadensis- Eastern Hemlock

This medium growing tree reaches 40 to 70' in height with a smaller spread. The State Tree of Pennsylvania, it offers a beautiful pyramidal form in youth and maturity. More tolerant of limestone soils than any other hemlock, tolerates shade well, and can be pruned into hedges. *Notes: Almost certainly will be infected by woolly adelpid. Do not plant unless this insect will be addressed.*

PERMISSION REQUIRED: MEDIUM LANDSCAPE AREAS (TREES 30 TO 45' IN HEIGHT)

Acer saccharum 'Goldspire'- Goldspire Sugar Maple

This slow growing tree has an upright growth form reaching 40 to 50' in height with a smaller spread. It offers beautiful brilliant yellow, burnt-orange, and red fall color. Somewhat adaptable to pH, but prefer slightly acidic soils. A beautiful tree in fall color. *Notes: A poor street and parking lot tree, it absolutely cannot be planted where heat, drought, soil compaction, or salt is common. Susceptible to verticillium wilt.*

Acer saccharum 'Reba'- Belle Tower Sugar Maple

This slow growing tree has an upright growth form reaching 40 to 45' in height with a much smaller spread (18'). It has one of the most upright forms of all sugar maples. It offers beautiful brilliant yellow, burnt-orange, and red fall color. Somewhat adaptable to pH, but prefer slightly acidic soils. A beautiful tree in fall color. *Notes: A poor street and parking lot tree, it absolutely cannot be planted where heat, drought, soil compaction, or salt is common. Susceptible to verticillium wilt.*

SUGGESTED TREES FOR FULL OR PARTIAL SHADE

Most, if not all, large growing ornamental hardwoods prefer full sun. This limits tree selection to a few medium and small trees and conifers such as hemlock.

Acer truncatum x A. Platanoides 'Warrenrod'- pacific sunset maple (partial shade)

Carpinus caroliniana- American hornbeam (full shade)

Cornus kousa- kousa dogwood (partial shade)

Cercis canadensis- Eastern redbud (partial shade)

Eucommia ulmoides- hardy rubber tree (partial shade)

Tsuga Canadensis- eastern hemlock (partial shade)

SUGGESTED TREES FOR SIDEWALK AND PATIO PLANTINGS

Planter cutouts must be a 5 by 5' minimum. Larger trees can be considered if structural or other engineered soils are being used.

Acer. xfreemaniana (hybrid maples)- A. xfreemani 'Autumn Blaze', A. xfreemani 'Celebration', and A. xfreeman 'Scarlet Sentinel'

Eucommia ulmoides (hardy rubber tree)

Ginkgo bilboa (gingko)- 'Autumn Gold', 'Princeton Sentry' and 'Lakeview'

Gleditsia triacanthos (thornless common honeylocust)- 'Imperial' and 'Skyline'

Platanus X acerfolia (London plane tree)- 'Bloodgood'

SUGGESTED TREES TO PLANT UNDER UTILITY LINES

To avoid severe pruning only small trees should be planted under utility lines.

Carpinus caroliniana- American hornbeam or muscle wood

Cercis canadensis- Eastern redbud

Cornus kousa- Kousa Dogwood

Crataegus punctata 'Ohio Pioneer'- Ohio pioneer hawthorn

Crataegus viridis "Winter King"- winter green hawthorn

Magnolia "Galaxy"- galaxy magnolia

Mognolia stellata- star magnolia

Malus- crabapple (many cultivars)

Prunus 'Okame'- okame cherry

Prunus virginiana 'Shubert'- common chokecherry or Canada red cherry

Syringa reticulata 'Ivory Silk'- Japanese tree lilac

RESOLVED this 14th day of December, 2020.

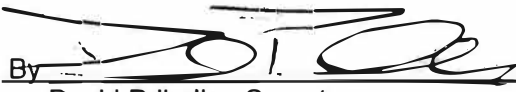
TOWNSHIP OF FERGUSON

By


Steve Miller, Chairman
Board of Supervisors

[S E A L]

ATTEST:

By 
David Pribulka, Secretary