The Athens-Clarke County Tree Species List

The **Athens-Clarke County Tree Species List** is intended to support the development code, site planning and design activities for tree conservation and establishment, and tree maintenance planning and decision-making. In the list trees are arranged alphabetically by the tree's common name with the "genus" listed first. For example, red maple is listed as "Maple, Red" (maple is the genus name). The Latin name is also listed for more definitive species identification. In some cases, the commonly planted variety or cultivar of the species has also been included apart from the species.

Key to Symbols and Tree Species Characteristic Descriptions

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
Species Common Name	**Entered with genus common name first, then species, then cultivar if applicable. For some species an alternate common name is included in parentheses.**
Latin Name	**Genus, species, and variety or cultivar; always italicized or underlined.**
CANOPY AREA FOR DEVELOPMENT CODE	
Square Feet of Canopy	**The total area projection of the crown onto the ground in square feet as typically achieved in urban situations with less than optimal growing conditions.**
Canopy Size Category	VS = Very Small - 150 square feet with a 15 foot crown diameter *The minimum open soil surface area is 25 sq. ft.*
	S = Small – 400 square feet with a 25 foot crown diameter *The minimum open soil surface area is 100 sq. ft.*
	M = Medium – 900 square feet with a 35 foot crown diameter *The minimum open soil surface area is 225 sq. ft.*
	L = Large – 1,600 square feet with a 45 foot crown diameter *The minimum open soil surface area is 400 sq. ft.*
RECOMMENDED USES	
Level of Use	**The level of use that the tree should receive.**
	NewC = Plant New Trees and Conserve Existing Trees
	Cnsv = Conserve Existing Trees (not recommended for new installs)
	Limit = For Limited Planting or Conservation Only
	NoPlnt = Do Not Plant
Large Landscape Areas **Road Frontages – Street** **Road Frontages – Yard** **Parking Lots** **Plazas and Downtown Settings** **Riparian Zones and Drainage Areas** **Utility Corridors**	**Recommendations on the site situation where the tree may be planted and/or conserved; locations where the tree would adapt well.** **X** = tree to avoid; not suitable Blank = may or may not be suitable ✓ = good choice ✓✓ = excellent choice
Tree is Commonly Utilized	**X** = tree to avoid; not suitable Limit = Utilized very much (potential for overuse – Limit Use) Blank = may or may not be suitable ✓ = good choice (tends to be successful and not over utilized) ✓✓ = excellent choice (provides multiple benefits and is fairly rare)

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
PHYSICAL CHARACTERISTICS	
Height Class in Urban Conditions	**Height class (ground to tip of leader or tallest branch) of a mature tree commonly achieved in urban situations with less than optimal growing conditions.**
	S = Small: 15-25 feet
	M = Medium: 25-40 feet
	L = Large: 40 feet and taller
Crown Class in Urban Conditions	**The width of the crown (at its widest point) commonly achieved in urban situations with less than optimal growing conditions.**
	VS = Very Small (150 square feet with a 15 foot crown diameter)
	S = Small (400 square feet with a 25 foot crown diameter)
	M = Medium (900 square feet with a 35 foot crown diameter)
	L = Large (1,600 square feet with a 45 foot crown diameter)
Mature Crown Form	**General shape of the tree crown (leaves and branches) when fully leafed out.**
	Irregular
	Multi-Stemmed
	Oval (Columnar)
	Pyramidal
	Rounded
	Spreading
	Upright (Vase)
Typical Range of Mature Tree Height	**Typical range of height of tree in feet from ground to bud at tip of leader or tallest branch under various conditions.**
Typical Range of Mature Crown Width	**Typical range of spread of branches in feet at the widest diameter across the crown under various conditions.**
Leaf Type	**Persistence and type of leaf on the tree. Deciduous trees lose their leaves in the fall.**
	DB = Deciduous Broadleaf
	DC = Deciduous Conifer
	EB = Evergreen Broadleaf
	EC = Evergreen Conifer
Leaf Texture	**Relative size and appearance of leaves.**
	F = Fine
	M = Medium
	C = Coarse
Fall Leaf Color	**The typical color of the tree's fall foliage.**
	EV = evergreen
	BR = bronze or brown
	MA = maroon
	MU = multi-colored: maroon, red, orange, yellow
	OR = orange
	RE = red
	YE = yellow
	I = insignificant color change

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
PHYSICAL CHARACTERISTICS (continued)	
Flower Color	**For trees with showy flowers, indicates the typical flower color.**
	B = blue
	L = purple
	M = multiple colors: white, pink, purple, red, or others
	P = pink
	R = red
	W = white
	Y = yellow
	I = insignificant flowers: small with an unremarkable color
Flowering Time	**For trees with showy flowers, the general season of blooming for the species.**
Wildlife Value	**Indicates with an "✓" if the tree produces flowers (nectar) or fruits that are consumed by insects, birds, or mammals.**
Excessive Litter	**Indicates with an " X " if the tree produces large or hazardous leaves, fruit, or other litter.**
ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES	
Native Tree to Athens-Clarke Co.	**Indicates whether or not the tree is found naturally growing in the Athens-Clarke County area.**
	Y = Yes
	N = No
Growth Rate	**Typical rate of growth under urban conditions.**
	S = Slow: 1/2 to 1-1/2 feet/year
	M = Moderate: 1-1/2 to 2-1/2 feet/year
	F = Fast: 2-1/2 to 3+ feet/year
Average Life Span	**The average life span (useful service life) of the species when growing under average urban conditions. A tree is at the end of its useful service life when its risk of failure becomes unacceptable and cannot be improved or when the tree is no longer an asset due to its appearance or condition.**
	S = Short: less than 25 years useful service life.
	M = Moderate: 25 to 40 years useful service life.
	L = Large: 50 years or greater useful service life.
Net Effect on Air Quality	**The net monetary effects in cents attributable to the species on air quality; listed as a benefit (positive) or cost (negative). Includes the species net effect on ozone, sulfur dioxide, nitrogen dioxide, particulate matter (PM10), and carbon monoxide.**
Soil Moisture	**The typical soil moisture conditions for the species in its native habitat.**
	H = Hydric: wet and may be occasionally flooded for short periods
	M = Mesic: moist but moderately well- to well-drained
	X = Xeric: dry and very well-drained

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES (continued)	
Drought Tolerance	**Tolerance of the species to infrequent rain, low soil moisture, full sun, and high temperatures.**
	Low = not tolerant to drought conditions
	Moderate = tolerant to mild drought conditions; moderately tolerant to severe drought conditions
	High = very tolerant to mild to severe and prolonged drought conditions
Preferred Soil pH	**Relative soil acidity or alkalinity preferred by the species. In many cases, a range of pH preference is given if it was available. In other cases, a general level is given. A pH of 7.0 is neutral, a pH of less than 7.0 is acidic, and a pH of greater than 7.0 is alkaline.**
	ac = acidic (5.0 to 6.0)
	sl ac = slightly acidic (6.0 to 7.0)
	nu = neutral (7.0)
	sl al = sl alkaline (7.0 to 8.0)
	al = alkaline (8.0 to 8.5)
	n/a = no information available
Light Requirement	**The amount of sunlight the species prefers or will tolerate. Trees that are typically found in the understory or are characteristic of late forest successional stages prefer shade or at least partial shade, while trees that typically form the overstory or are characteristic of early successional stages prefer full sun.**
	FS = Full Sun
	PS = Partial Shade
	SH = Shade
Construction Tolerance/Limitations	**The broad tolerance of the species in its home range to construction damage, and the limitations that constrain a species tolerance to damage.**
Tolerance	P = Poor
	M = Moderate
	G = Good
Limitations	I = physical injury, wood compartmentalization and decay
Susceptible to	P = pest complications, including chronic and acute attacks
	S = soil conditions, including aeration and water availability
	C = limited climatic tolerances, including native range, hardiness, and micro-climate change
	X = all of the limitations described above
Urban Tolerant Tree	**Based upon other characteristics and tolerances to urban conditions; an "✓" indicates the species is suitable for planting under "tough" urban conditions.**

Athens-Clarke County Tree Species List

SPECIES COMMON NAME	LATIN NAME	FOR DEVELOPMEN		RECOMMENDED USES										PHYSICAL CHARACTERISTICS											ENVIRONMENTALCHARACTERISTICS AND TOLERANCES									
		Square Feet of Canopy	Canopy Size Category	Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	Tree Commonly Utilized	Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Cown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	Native Tree to Athens-Clarke Co.	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree	Firewise Rating
Alder, Hazel (Tag)	*Alnus serrulata*	150	VS	NewC	✓✓					✓	✓✓	✓	✓	S	VS	Multi-Stemmed	10-	10-20	DB	M	YE	I				Y	F	S	n/a	W	M	acidic	FS	G/	✓	
Ash, Green	*Fraxinus pennsylvanica*	1,600	L	Cnsv	susceptible to emerald ash borer									L	L	Rounded	60-100	40-50	DB	M	MU	I		✓		Y	F	M	0.090	W	H	sl ac-sl	FS	G/		
Ash, White	*Fraxinus americana*	1,600	L	Cnsv	susceptible to emerald ash borer									L	L	Rounded	50-	30-60	DB	M	MA	I		✓		Y	M	M	0.100	M	L	sl ac-sl	FS	M/S		
Baldcypress	*Taxodium distichum*	900	M	NewC	✓		✓✓			✓	✓✓		✓✓	L	M	Pyramidal	50-100	20-50	DC	F	BR	I		✓		N	M	L	0.032	M	H	ac-sl alk	FS	G/	✓	low
Basswood, American (Linden)	*Tilia americana*	1,600	L	NewC	✓						✓			M	L	Irregular	60-100	35-50	DB	C	YE	Y	Summer	✓		Y	F	M	0.144	M	L	ac-alk	PS	P/A		low
Beech, American	*Fagus grandifolia*	1,600	L	NewC	✓✓					X				L	L	Oval	80-100	50-70	DB	M	YE	I		✓		Y	S	L	0.160	M	L	acidic	FS	P/A		moderate
Birch, River	*Betula nigra*	900	M	NewC	✓✓	✓	✓✓		✓	✓	✓✓	X		M	M	Pyramidal	50-	40-60	DB	F/M	YE	I				Y	F	M	0.117	M	L	acidic	PS	G/		Low
Birch, River 'Heritage'	*Betula nigra* 'Heritage'	900	M	NewC	✓✓	✓	✓✓		✓	✓	✓✓	X		M	M	Pyramidal	50-	40-60	DB	F/M	YE	I				Y	F	M	n/a	M	L	acidic	PS	n/a		
Blackgum (Tupelo)	*Nyssa sylvatica*	900	M	NewC	✓✓	✓	✓✓				✓		✓✓	M	M	Oval	50-100	20-35	DB	M	RE	I				Y	S	M	-0.053	M	M	sl ac-sl	FS	G/	✓	low
Boxelder	*Acer negundo*	900	M	NewC	✓						✓	X		L	M	Rounded	50-	40-50	DB	M	YE	I		✓		Y	F	S	0.036	W	M	adapt	FS	G/		
Buckeye, Bottlebrush	*Aesculus parviflora*	150	VS	NewC								✓		S	VS	Multi-Stemmed	15-	10-15	DB	M	YE	W	Summer	✓		N	M	S	n/a	M	L	ac-adapt	SH	n/a		
Buckeye, Painted	*Aesculus sylvatica*	150	VS	NewC	✓						✓	✓		S	VS	Rounded	15-	5-15	DB	M	YE	P/Y	Spring	✓		Y	M	S	n/a	M	L	ac-adapt	SH	n/a		low
Buckeye, Red	*Aesculus pavia*	150	VS	NewC								✓		S	VS	Rounded	10-	10-15	DB	M	YE	R	Spring	✓		N	M	S	n/a	M	L	ac	PS	M/I		
Buckthorn, Carolina	*Rhamnus caroliniana*	900	M	NewC	✓	✓	✓				✓✓		✓	M	M	Oval	30-	10-30	DB	M	OR	I		✓		Y	M	S	n/a	M	M	ac-alk	FS	M/S		
Buckthorn, Common	*Rhamnus cathartica*	900	M	Limit								✓		S	M	Rounded	20-	20-25	DB	M	YE	I		✓		N	M	S	n/a	M	H	adapt	FS	n/a	✓	
Buttonbush, Common	*Cephalanthus occidentalis*	150	VS	NewC	✓						✓	✓		S	VS	Multi-Stemmed	10-	10-15	DB	M	YE	W	Late Summer	✓		Y	M	S	n/a	W	L	n/a	FS	G/I		
Catalpa, Southern	*Catalpa bignonioides*	900	M	NewC	✓	✓		✓			✓			M	M	Rounded	30-	30-40	DB	C	YE	W	Spring	✓	X	Y	F	S	0.014	M	M	sl ac-sl	FS	G/		
Cedar, Deodar	*Cedrus deodara*	900	M	Limit	✓									L	M	Pyramidal	40-100	40-	EC	F	EV	I				N	M	L	-0.031	D	H	ac-sl alk	FS	g		moderate
Cedar, Japanese	*Cryptomeria japonica*	900	M	Limit	✓		✓			✓			✓	L	M	Pyramidal	40-	15-20	EC	F	EV	I				N	S	M	0.084	M	H	ac	FS	n/a	✓	moderate
Chastetree (Vitex)	*Vitex agnus-castus*	150	VS	NewC		✓	✓	✓	✓			✓		S	VS	Multi-Stemmed	15-	10-20	DB	M	I	B/L/W	Summer	✓		N	M	S	n/a	D	H	ac-alk	FS	n/a	✓	moderate
Cherry, Black	*Prunus serotina*	900	M	NewC	✓		✓				✓			L	M	Oval	50-	15-50	DB	M	YE	W	Early Spring	✓		Y	F	M	0.083	M	M	sl ac	FS	M/I		
Cherrylaurel, Carolina	*Prunus caroliniana*	900	M	NewC		X	✓	X	X	✓	X			M	M	Oval	20-	15-25	EB	M	EV	W	Spring	✓		N	M	M	n/a	M	H	ac-sl alk	FS	G/	✓	moderate
Cherry, Japanese Flowering	*Prunus serrulata*	400	S	Limit			✓		✓	✓		✓		S	S	Rounded	20-	20-30	DB	M	OR	P	Spring	✓		N	F	S	0.013	M	L	ac-alk	FS	n/a		
Cherry, Yoshino	*Prunes x yedoensis*	400	S	Limt			✓✓		✓			✓		S	S	Rounded	20-	20-40	DB	M	YE	P/W	Spring	✓		N	F	S	n/a	M	L	ac	FS	n/a		
Chestnut, American	*Castanea dentata*	1,600	L	Cnsv	susceptible to chestnut blight									L	L	-	-	-	-							Y										
Chestnut, Chinese	*Castanea mollissima*	1,600	L	NewC	✓		✓							L	L	Rounded	40-	40-60	DB	M	BR	W	Summer	✓		N	S	L	n/a	D	M	ac-sl alk	FS	n/a	✓	
Chinaberry	*Melia azedarach*	900	M	NoPlnt	invasive									M	M											N										
Chinquapin, Allegheny	*Castanea pumila*	400	S	Cnsv	susceptible to chestnut blight									S	S	Rounded	10-	10-25	DB	M	BR	I		✓		Y	S	S	n/a	D	H	n/a	FS	P/P		
Cottonwood, Eastern	*Populus deltoides*	1,600	L	Cnsv	✓					X	✓			L	L	Pyramidal	50-100	20-75	DB	C	YE	I		✓	X	Y	F	M	-0.708	M	M	sl ac-sl	FS	G/	✓	
Crabapple, Japanese Flowering	*Malus floribunda*	400	S	Limit		✓	✓		✓	✓		✓		S	S	Rounded	15-	15-25	DB	M	YE	P	Spring	✓		N	M	S	n/a	M	L	sl ac-sl	FS	n/a		
Crabapple, Southern	*Malus angustifolia*	400	S	NewC	✓	✓	✓			✓		✓		S	S	Spreading	20-	10-20	DB	M	YE	P	Spring	✓	X	Y	M	S	n/a	M	L	sl ac-sl	FS	M/CP		
Crapemyrtle, Common	*Lagerstroemia indica*	150	VS	Cnsv				✓				✓	Limt	S	VS	Multi-Stemmed	15-	10-25	DB	F	RE	M	Summer			N	F	M	0.004	M	H	ac-sl alk	FS	n/a	✓	
Cypress, Leyland	*Cupressocyparis leylandii*	400	S	Limit	pest susceptible									M	S	Pyramidal	50-	20-30	EC	F	EV	I				N	F	M	0.053	M	M	ac-alk	FS	g		
Devil's Walking Stick	*Aralia spinosa*	150	VS	NewC		X	X	X	X	✓	✓✓			S	VS											Y										
Devilwood	*Osmanthus americanus*	400	S	NewC	✓		✓							S	S	Rounded	15-	10-15	DB	M	YE	W	Spring	✓		Y	M	M	n/a	M	M		PS	M/I		
Dogwood, Flowering	*Cornus florida*	400	S	NewC	✓✓	✓	✓✓	X	X	✓		✓		S	S	Spreading	15-	15-30	DB	M	RE	W	Spring	✓		Y	M	M	0.021	M	L	ac-nu	PS	M/P		low
Dogwood, Flowering Pink	*Cornus florida var. rubra*	400	S	NewC	✓✓	✓	✓✓	X	X	✓		✓		S	S	Spreading	15-	15-30	DB	M	RE	P	Spring	✓		Y	M	M	n/a	M	L	n/a	PS	n/a		low
Dogwood, Kousa	*Cornus kousa*	400	S	NewC		✓	✓			✓		✓		S	S	Rounded	10-	10-20	DB	M	RE	W	Spring	✓		N	S	S	n/a	M	L	ac	PS	n/a		low
Dogwood, Swamp	*Cornus stricta*	400	S	NewC	✓						✓	✓		S	S	Rounded	10-	10-25	DB	M	RE	W	Spring	✓		Y	S	S	n/a	W	L	n/a	PS	G/I		low
Elm, American	*Ulmus americana*	1,600	L	Cnsv	✓		✓				✓		✓	L	L	Upright	50-100	30-70	DB	M	YE	I		✓		Y	M	M	0.143	M	H	sl ac-sl	FS	M/P		low
Elm, American 'Princeton'	*Ulmus americana* 'Princeton'	1,600	L	Cnsv	✓✓	✓	✓✓				✓	X	✓✓	L	L	Spreading	50-100	30-70	DB	M	YE	I	Spring	✓		Y	M	M	0.143	M	H	sl ac-sl	FS	M/P	✓	low
Elm, Chinese (Lace Bark)*	*Ulmus parvifolia* *	900	M	NoPlnt	invasive									M	M	Upright	40-	30-50	DB	F/M	YE	I				N	F	M	0.058	M	H	sl ac-sl	FS	n/a	✓	moderate
Elm, Siberian	*Ulmus pumila*	900	M	NoPlnt	pest susceptible; weed tree									L	M											N										
Elm, Slippery	*Ulmus rubra*	1,600	L	NewC	✓	✓	✓				✓			L	L	Upright	70-	30-50	DB	M	YE	I		✓		Y	F	M	0.086	M	M	sl ac-sl	FS	M/P		
Elm, Winged	*Ulmus alata*	1,600	L	NewC	✓✓	✓	✓✓	✓		X	X		✓	L	L	Upright	70-	30-50	DB	F	YE	I		✓		Y	M	M	0.034	M	H	sl ac-sl	FS	G/	✓	low
Flametree, Chinese (Bougainvillea)	*Koelreuteria bipinnata*	400	S	NewC			✓							M	S	Rounded	20-	20-40	DB	M	YE	Y	Summer			N	M	M	n/a	M	H	sl ac-sl	FS	n/a	✓	
Fringetree (Grancy Gray Beard)	*Chionanthus virginicus*	150	VS	NewC	✓	✓	✓			✓		✓		S	VS	Oval	10-	5-15	DB	M/	YE	W	Spring	✓		Y	M	S	n/a	M	L	acidic	PS	M/S		
Fringetree, Chinese	*Chionanthus retusus*	150	VS	NewC		✓	✓			✓		✓		S	VS	Rounded	15-25	10-15	DB	M/	YE	W	Spring	✓		N	S	S	n/a	M	M	acidic	PS	n/a		low
Ginkgo (Female)	*Ginkgo biloba*	1,600	L	Limit	✓	X	✓	X	X	X			X	M	L	Pyramidal	50-75	30-60	DB	C	YE	I			X	N	S	L	0.108	M	H	sl ac	FS	g	✓	moderate
Ginkgo (Male)	*Ginkgo biloba*	1,600	L	NewC	✓	✓	✓✓	✓	✓	X			✓	M	L	Pyramidal	50-75	30-60	DB	C	YE	I				N	S	L	0.108	M	H	sl ac	FS	g	✓	moderate
Goldenraintree	*Koelreuteria paniculata*	400	S	NewC		✓	✓	✓	✓	✓				M	S	Rounded	20-40	20-40	DB	M	YE	Y	Summer			N	M	M	-0.087	M	H	sl ac-sl	FS	n/a		
Hackberry, Common	*Celtis occidentalis*	1,600	L	NewC	✓		✓				✓			L	L	Spreading	60-90	25-60	DB	F/M	YE	I		✓		Y	M	M	0.060	M	H	sl ac-sl	FS	n/a	✓	
Hackberry, Georgia	*Celtis tenuifolia*	1,600	L	NewC	✓		✓				✓			M	L	Spreading	25-35	25-35	DB	F/M	YE	I		✓		Y	S	M	n/a	D	H	sl ac-sl	FS	M/S		
Hawthorne, Washington	*Crataegus phaenopyrum*	400	S	NewC		✓	✓		✓			✓		S	S	Rounded	10-30	5-25	DB	F	MU	W	Late Spring	✓		N	S	S	0.017	M	M	sl ac-sl	FS	g		low
Hemlock, Eastern	*Tsuga canadensis*	1,600	L	NewC	✓		✓✓	X	X	✓		X		L	L	Pyramidal	50-100	30-50	EC	F	EV	I		✓		N	S	L		M	M	sl ac-sl	PS			
Hickory, Bitternut	*Carya cordiformis*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	50-100	50-75	DB	M	YE	I		✓		Y	F	L	0.069	M	L	acidic	FS	P/S		

Hickory, Mockernut	*Carya tomentosa*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	50-100	50-75	DB	M/	YE	I		✓	X	Y	S	L	0.059	D	H	sl ac	FS	MP/S		
Hickory, Pignut	*Carya glabra*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	50-100	50-75	DB	M	YE	I		✓		Y	S	L	0.058	M	H	sl ac	FS	M/S		Low
Hickory, Sand	*Carya pallida*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	40-90	20-40	DB	M	YE	I		✓		Y	S	M	n/a	D	H	sl ac	FS	M/		
Hickory, Shagbark	*Carya ovata*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	70-100	50-75	DB	M	YE	I		✓		Y	S	L	0.064	M	M	sl ac	FS	P/S		
Hickory, Southern Shagbark	*Carya ovata var. australis*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	60-80	40-60	DB	M	YE	I		✓		Y	S	L	n/a	M	M	sl ac	FS	n/a		
Holly, American	*Ilex opaca*	400	S	NewC	✓		✓✓	x		✓		X		M	S	Pyramidal	20-70	15-25	EB	M	EV	I		✓		Y	S	L	0.013	M	H	acidic	PS	G/	✓	high
Holly, Deciduous (Possumhaw)	*Ilex decidua*	150	VS	NewC	✓		✓				✓	✓		S	VS	Rounded	10-20	10-20	DB	F	I	I		✓		Y	M	S	n/a	W	H	ac-alk	PS	G/		low
Holly, Fosters	*Ilex x attenuata* 'Fosteri'	150	VS	NewC			✓	✓	✓	✓				S	VS	Pyramidal	15-25	10-15	EB	F/M	EV	I		✓		N	S	S	n/a	M	H	sl ac	FS	n/a	✓	low
Holly, Ornamental Variety	*Ilex* species	150	VS	Limit			✓	✓	✓	✓		✓		S	VS	Rounded	10-20	10-15	EB	M	EV	I				N	S	S	n/a	M	H	ac	FS	n/a		
Holly, Savannah	*Ilex x attenuata* `Savannah'	150	VS	NewC	✓		✓	✓	✓	✓		X		M	VS	Pyramidal	30-45	10-15	EB	M	EV	I		✓		N	M	S	n/a	M	H	ac-sl alk	FS	n/a		
Holly, Yaupon	*Ilex vomitoria*	150	VS	NewC		✓	✓	✓	✓			✓		S	VS	Irregular	10-25	5-10	EB	F	EV	I		✓		Y	S	S	n/a	D	H	ac-alk	FS	G/	✓	high
Honeylocust	*Gleditsia triacanthos*	900	M	NewC	✓		✓	X	X					L	M	Irregular	60-80	30-50	DB	F	YE	I				Y	F	S	0.009	M	H	sl ac-sl	FS	G/	✓	
Hophornbeam, American	*Ostrya virginiana*	900	M	NewC	✓		✓	✓			✓		✓	M	M	Oval	15-40	10-30	DB	F/M	YE	W	Summer	✓		Y	S	M	0.032	M	H	ac-alk	SH	M/S	✓	low
Hornbeam, Am. (Ironwood, Blue Beech)	*Carpinus caroliniana*	900	M	NewC	✓✓	✓	✓✓	✓	✓	✓	✓✓		✓	M	M	Oval	20-35	15-30	DB	F/M	YE	I		✓		Y	S	M	0.009	M	M	sl ac-sl	PS	M/SC		low
Hornbeam, European	*Carpinus betulus*	900	M	NewC		✓	✓✓	✓	✓	✓			✓	M	M	Oval	40-60	35-40	DB	F/M	YE	I		✓		N	S	M	0.037	M	H	ac-alk	PS	n/a	✓	
Hornbeam, Japanese	*Carpinus japonica*	400	S	Limit		✓	✓	✓	✓	✓				M	S	Oval	20-30	20-30	DB	M	RE	I				N	S	M	n/a	M	M	adapt	PS	n/a		
Katsuratree	*Cercidiphyllym japonicum*	900	M	Limit	✓		✓						✓	M	M	Spreading	40-60	35-60	DB	M	YE	I				N	F	L	n/a	M	L	ac-sl alk	FS	pm		
Locust, Black	*Robinia pseudoacacia*	900	M	NewC	✓			X	X		✓			L	M	Spreading	40-90	20-40	DB	F	YE	W	Spring	✓		Y	F	M	-0.123	M	H	sl ac-sl	FS	G/P	✓	
Magnolia, Cucumber	*Magnolia acuminata*	1,600	L	NewC	✓		✓	X			✓			L	L	Upright	60-80	20-60	DB	C	YE	W	Spring	✓		Y	F	M	n/a	M	L	acidic	PS	M/I		
Magnolia, Japanese (Saucer)	*Magnolia x soulangiana*	900	M	Limit			✓	X				✓		M	M	Upright	20-30	10-30	DB	C	YE	P	Late Winter			N	M	S	0.009	M	L	acidic	FS	n/a		
Magnolia, Southern	*Magnolia grandiflora*	1,600	L	NewC	✓✓		✓✓	X		✓		X	✓	L	L	Pyramidal	80-100	30-50	EB	C	EV	W	Late Spring	✓	X	Y	M	L	0.002	M	M	acidic	FS	M/I		moderate
Magnolia, Southern 'Little Gem'	*Magnolia grandiflora* 'Little Gem'	150	VS	NewC			✓	X		✓		✓		M	VS	Pyramidal	40-60	20-30	EB	C	EV	W	Late Spring	✓	X	Y	S	M	n/a	M	L	acidic	FS	n/a		
Magnolia, Star	*Magnolia stellata*	150	VS	Limit		✓	✓					✓		S	VS	Multi-Stemmed	15-20	15-20	DB	M	YE	W	Late Winter	✓		N	S	S	n/a	M	M	acidic	PS	n/a		
Magnolia, Sweetbay	*Magnolia virginiana*	900	M	NewC	✓✓		✓			✓	✓✓		✓	M	M	Oval	30-60	20-40	EB	C	EV	W	Summer	✓		Y	F	M	n/a	W	L	acidic	PS	G/		low
Maple, Amur	*Acer ginnala*	400	S	NewC		✓	✓					✓		S	S	Rounded	15-25	15-25	DB	M	RE	W	Spring			N	M	M	0.008	M	M	adapt	FS	n/a		
Maple, Chalk	*Acer leucoderme*	900	M	NewC	✓	✓	✓	✓		✓			✓	M	M	Spreading	20-40	10-30	DB	M	I	I				Y	M	M	n/a	M	H	ac-sl alk	FS	P/A	✓	moderate
Maple, Hedge	*Acer campestre*	900	M	NewC		✓	✓	✓		✓			✓	M	M	Rounded	25-35	25-35	DB	M	YE	I				N	S	S	0.017	M	H	ac-alk	FS	n/a	✓	
Maple, Japanese	*Acer palmatum*	400	S	Limit	X		✓	X				✓		S	S	Oval	15-25	10-25	DB	M	RE	I				N	S	S	0.008	M	L	sl ac-sl	PS	n/a		
Maple, Norway	*Acer platanoides*	900	M	NoPlnt	pest susceptible									M	M											N										
Maple, Red	*Acer rubrum*	900	M	NewC	✓✓	✓	✓✓	✓	✓	✓	✓✓	X	Limt	M	M	Rounded	40-90	20-35	DB	M	RE	R	Late Winter	✓		Y	F	L	0.084	M	L	sl ac	FS	G/		Low
Maple, Silver	*Acer saccharinum*	1,600	L	Limit	X		✓	X	X					L	L	Rounded	50-80	40-60	DB	M	YE	I				N	F	S	0.084	M	H	ac	FS	P/A		
Maple, Southern Sugar (Florida Sugar)	*Acer barbatum*	900	M	NewC	✓✓	✓	✓✓	✓	✓	✓	✓		✓	M	M	Rounded	40-70	25-60	DB	M	OR	I				Y	M	M	n/a	M	H	ac	FS	M/S	✓	low
Maple, Sugar	*Acer saccharum*	1,600	L	NewC	✓✓	✓	✓✓				✓	X	✓	L	L	Oval	60-80	30-50	DB	M	OR	I		✓		Y	M	L	0.100	M	M	sl ac-sl	PS	pm		Low
Maple, Sugar 'Green Mountain'	*Acer saccharum* 'Green Mountain'	1,600	L	NewC	✓✓	✓	✓✓					X	✓	L	L	Oval	60-80	30-50	DB	M	OR	I		✓		Y	F	L	0.100	M	M	sl ac-sl	PS	n/a		
Maple, Sugar 'Legacy'	*Acer saccharum* 'Legacy'	1,600	L	NewC	✓✓	✓	✓✓					X	✓	L	L	Oval	60-80	30-50	DB	M	OR	I		✓		Y	F	L	0.100	M	M	sl ac-sl	PS	n/a		
Maple, Trident	*Acer buergeranum*	900	M	NewC	X	✓	✓✓	✓	✓	✓		x		M	S	Rounded	20-45	20-30	DB	M	MU	I				N	F	M	n/a	M	M	ac-alk	FS	n/a	✓	low
Mimosa	*Albizia julibrissin*	900	M	NoPlnt	invasive, pest susceptible									M	M											N										
Mulberry, Red	*Morus rubra*	900	M	NewC	✓	X		X	X		✓			L	M	Rounded	40-70	20-50	DB	C	YE	I		✓	X	Y	F	S	0.099	M	H	sl ac-sl	FS	G/		
Oak, Black	*Quercus velutina*	1,600	L	NewC	✓		✓				✓		✓	L	L	Rounded	70-90	50-60	DB	M	RE	I		✓		Y	M	L	-0.253	D	H	sl ac	FS	G/		low
Oak, Cherrybark	*Quercus falcata var. pagodifolia*	1,600	L	NewC	✓		✓				✓		✓	L	L	Rounded	60-100	30-50	DB	M	RE	I		✓		Y	M	L	n/a	M	M	ac	FS	G/		low
Oak, Chestnut	*Quercus prinus*	1,600	L	NewC	✓	X	✓✓	X	X		X		✓	L	L	Rounded	50-80	30-60	DB	M	RE	I		✓	X	Y	S	L	-0.342	D	H	acidic	FS	GM/S		low
Oak, Diamond Leaf (Laurel)	*Quercus laurifolia*	1,600	L	NewC	✓	✓	✓						✓	L	L	Rounded	60-80	50-60	DB	M	YE	I		✓		N	M	L	n/a	M	M	ac-sl alk	FS	G/		low
Oak, English	*Quercus robur*	1,600	L	Limit		✓	✓						✓	L	L	Rounded	40-60	40-60	DB	M	BR	I		✓		N	S	M	-0.275	M	M	sl ac-sl	FS	n/a		low
Oak, Georgia	*Quercus georgiana*	1,600	L	NewC	✓		✓						✓	L	L	Rounded	20-40	10-30	DB	M	BR	I		✓		Y	M	M	n/a	D	H	ac-alk	FS	n/a		low
Oak, Laurel	*Quercus hemisphaerica*	1,600	L	NewC	✓	✓	✓						✓	L	L	Rounded	60-90	50-60	DB	M	BR	I		✓		N	F	M	-0.314	D	H	adapt	FS	n/a		low
Oak, Laurel 'Darlington'	*Quercus hemisphaerica* 'Darlington'	1,600	L	NewC	✓	✓	✓✓						✓	L	L	Rounded	60-90	50-60	DB	F	BR	I		✓		N	F	M	n/a	D	H	adapt	FS	n/a		low
Oak, Live	*Quercus virginiana*	1,600	L	Cnsv	out of climate zone range									L	L											N										low
Oak, Northern Red	*Quercus rubra*	1,600	L	NewC	✓✓	✓	✓✓						✓	L	L	Rounded	60-100	30-60	DB	M	RE	I		✓		Y	F	L	-0.503	M	M	ac-sl ac	FS	GM/SC		low

Oak, Nuttall	*Quercus nuttalli*	1,600	L	NewC	✓	✓	✓						✓	L	L	Rounded	60-80	35-50	DB	M	RE	I		✓		Y	M	L	n/a	M	M	ac	FS	n/a		low
Oak, Oglethorpe	*Quercus oglethorpensis*	1,600	L	NewC	✓	✓	✓						✓	M	L	Rounded	40-70	30-50	DB	M	RE	I		✓		Y	S	M	n/a	W	M	n/a	FS	n/a		low
Oak, Overcup	*Quercus lyrata*	1,600	L	NewC	✓✓	✓	✓✓				✓		✓	L	L	Rounded	30-45	30-45	DB	M	BR	I		✓		Y	M	L	-0.159	W	M	ac-sl alk	FS	G/		low
Oak, Pin	*Quercus palustris*	1,600	L	Limit	X	✓	✓	X	X		X			L	L	Pyramidal	40-100	20-50	DB	M	RE	I		✓		N	M	M	-0.483	M	M	acidic	FS	mg		low
Oak, Post	*Quercus stellata*	1,600	L	NewC	✓	✓	✓✓						✓	L	L	Rounded	40-50	35-40	DB	M/	BR	I		✓		Y	M	L	-0.327	D	H	ac-sl alk	FS	G/		low
Oak, Sawtooth	*Quercus acutissima*	1,600	L	Limit	X	X	✓	X	X		0		✓	M	L	Oval	50-60	30-60	DB	M	YE	I		✓	X	N	F	M	-0.159	M	M	ac-sl alk	FS	n/a		low
Oak, Scarlet	*Quercus coccinea*	1,600	L	NewC	✓✓	✓	✓✓	✓	✓				✓	L	L	Rounded	50-80	30-50	DB	M	RE	I		✓		Y	M	L	-0.592	D	H	sl ac	FS	G/		low
Oak, Shumard	*Quercus shumardii*	1,600	L	NewC	✓✓	✓	✓✓	✓	✓				✓	L	L	Rounded	60-100	30-70	DB	M	RE	I		✓		Y	F	L	-0.265	M	H	ac-alk	FS	G/		low
Oak, Southern Red	*Quercus falcata*	1,600	L	NewC	✓✓	✓	✓✓				✓		✓✓	L	L	Rounded	60-100	30-70	DB	M	OR	I		✓		Y	M	L	-0.576	M	H	ac	FS	G/		low
Oak, Swamp Chestnut	*Quercus michauxii*	1,600	L	NewC	✓	X	✓	X	X		✓		✓	L	L	Oval	70-90	30-60	DB	M	YE	I		✓		Y	M	L	-0.544	M	M	n/a	FS	G/		low
Oak, Swamp White	*Quercus bicolor*	1,600	L	NewC	✓	✓	✓				✓		✓✓	L	L	Oval	70-90	30-60	DB	M	YE	I		✓		Y	M	L	-0.457	M	M	n/a	FS	G/		low
Oak, Water	*Quercus nigra*	1,600	L	Limit		X	X	X	X	X	✓✓	X	Limit	L	L	Rounded	50-100	30-70	DB	M	YE	I		✓		Y	F	M	-0.451	M	M	ac-sl alk	FS	G/		low
Oak, White	*Quercus alba*	1,600	L	NewC	✓✓	✓	✓✓						✓✓	L	L	Rounded	60-100	30-80	DB	M	RE	I		✓		Y	S	L	-0.348	M	M	acidic	FS	GM/S		low
Oak, Willow	*Quercus phellos*	1,600	L	NewC	✓✓	✓	✓✓	✓	✓	X	✓✓	X	✓✓	L	L	Rounded	40-100	30-60	DB	F/M	YE	I		✓		Y	F	L	-0.314	M	H	acidic	FS	GM/	✓	low
Orange, Osage	*Maclura pomifera*	900	M	NewC	✓	X	✓	X	X		X		X	M	M	Spreading	30-40	30-40	DB	M/	YE	I		✓	X	N	F	L	0.000	D	H	sl ac-sl	FS	n/a	✓	
Parrotia	*Parrotia persica*	400	S	Limit		✓	✓					✓		S	S	Rounded	20-40	20-35	DB	M	OR	R	Spring			N	F	S	n/a	M	M	ac-sl alk		n/a		
Pear, Callery	*Pyrus calleryana*	900	M	NoPlnt	Invasive - defective branch structure									M	M	Oval								✓	X	N									
Pecan	*Carya illinoensis*	1,600	L	NewC	✓	X	✓	X	X	X				L	L	Upright	60-100	30-75	DB	M/	YE	I		✓	X	N	S	M	0.088	M	L	sl ac-sl	FS	mg		
Persimmon, Common	*Diospyros virginiana*	900	M	NewC	✓	X	✓	X	X		✓		✓	L	M	Oval	70-80	40-60	DB	M	RE	I		✓	X	Y	M	S	0.058	M	H	ac-alk	FS	G/P	✓	Low
Pine, Eastern White	*Pinus strobus*	1,600	L	NewC	not heat tolerant									L	L											N										high
Pine, Loblolly	*Pinus taeda*	1,600	L	NewC	✓✓	✓	✓	✓		✓	✓	X	Limt	L	L	Pyramidal	80-100	20-40	EC	F	EV	I		✓		Y	F	M	0.016	M	M	acidic	FS	G/		high
Pine, Longleaf	*Pinus palustris*	1,600	L	NewC			✓	✓		✓	X			L	L	Pyramidal	60-100	20-40	EC	F	EV	I		✓		N	M	L	0.010	M	H	ac-sl alk	FS	GM/C		
Pine, Shortleaf	*Pinus echinata*	1,600	L	NewC	✓✓	✓	✓	✓		✓	✓	X	✓	L	L	Pyramidal	60-100	20-40	EC	F	EV	I		✓		Y	M	L	0.008	M	H	ac	PS	GM/P		
Pine, Slash	*Pinus elliotii*	1,600	L	Cnsv			✓	✓		✓	X			L	L	Pyramidal	60-100	20-50	EC	F	EV	I		✓		N	F	M	0.010	M	M	ac-sl alk	FS	G/		
Pine, Virginia	*Pinus virginiana*	900	M	NewC	✓		✓	✓		✓	✓			M	M	Pyramidal	15-70	10-35	EC	F	EV	I		✓		Y	F	S	0.003	M	H	ac	FS	G/	✓	high
Pistache, Chinese	*Pistacia chinensis*	900	M	Limit		✓	✓✓	✓	✓	✓	X		✓	M	M	Rounded	60-80	40-50	DB	M	RE	G	Spring	✓		N	M	M	n/a	M	H	ac-alk	FS	n/a	✓	low
Planetree, London	*Platanus x acerifolia*	1,600	L	NewC	✓	✓	✓✓	✓	✓				Limt	L	L	Irregular	60-100	20-80	DB	C	YE	I				N	F	M	-0.415	M	H	sl ac-sl	FS	pg	✓	
Plum, Chickasaw	*Prunus angustifolia*	150	VS	NewC	✓	X	✓			✓		✓		S	VS	Rounded	10-20	10-20	DB	F	I	W	Late Winter	✓		Y	M	S	n/a	M	H	sl ac-sl	FS	M/IS		
Plum, Purpleleaf	*Prunus cerasifera*	400	S	Limit		✓	✓			✓		✓		S	S	Rounded	10-25	10-25	DB	F	RE	P/W	Spring	✓		N	M	S	0.014	M	M	sl ac-sl	FS	mg		
Poplar, Lombardy	*Populus nigra var. italica*	900	M	NoPlnt	susceptable to pests and disease									L	M											N										
Poplar, White	*Populus alba*	900	M	Cnsv			✓							L	M	Oval	40-100	20-60	DB	C	YE	I				N	F	M	-0.417	M	H	ac-alk	FS	n/a		
Poplar, Yellow (Tuliptree)	*Liriodendron tulipifera*	1,600	L	NewC	✓✓		✓				✓✓	X	Limt	L	L	Oval	80-150	30-60	DB	C	YE	Y	Spring	✓		Y	M	L	0.171	M	L	sl ac	FS	P/IS		low
Redbud, Eastern	*Cercis canadensis*	400	S	NewC	✓✓	✓	✓✓		✓	✓	✓	✓		S	S	Spreading	25-50	15-25	DB	M	YE	P	Spring	✓		Y	F	S	0.012	M	M	ac-sl ac	PS	M/S		low
Redbud, Eastern White	*Cercis canadensis var. alba*	400	S	NewC	✓	✓	✓✓		✓	✓	✓	✓		S	S	Spreading	20-30	15-25	DB	M	YE	W	Spring	✓		Y	F	S	n/a	M	M	ac-sl ac	PS	n/a		low
Redbud, 'Forest Pansy'	*Cercis canadensis* 'Forest Pansy'	400	S	NewC	✓	✓	✓✓		✓	✓	✓	✓		S	S	Spreading	20-30	15-25	DB	M	YE	P	Spring	✓		Y	F	S	n/a	M	L	ac-sl ac	PS	n/a		low
Redbud, 'Oklahoma'	*Cercis reniformis* 'Oklahoma'	400	S	NewC		✓	✓✓	✓	✓			✓		S	S	Rounded	20-25	15-20	DB	M	YE	P	Spring	✓		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	✓	low
Redbud, 'Texas White'	*Cercis reniformis* 'Texas White'	400	S	NewC		✓	✓✓	✓	✓			✓		S	S	Rounded	20-25	15-20	DB	M	YE	W	Spring	✓		N	M	S	n/a	D	H	ac-sl ac	FS	n/a		low
Redcedar, Eastern	*Juniperus virginiana*	900	M	NewC	✓		✓✓	✓		✓	✓	X	✓	M	M	Pyramidal	40-60	10-20	EC	F	EV	I		✓		Y	S	M	-0.010	M	H	ac-nu	FS	M/IS		high
Redwood, Dawn	*Metasequoia glyptostroboides*	900	M	NewC	✓		✓✓	✓		✓			✓✓	L	M	Pyramidal	75-100	25-30	DC	F	BR	I				N	F	L	0.163	M	M	n/a	FS	n/a	✓	high
Royal Paulownia (Princess-Tree)	*Paulownia tomentosa*	900	M	NoPlnt		X	✓	X	X		X			M	M	Irregular	30-50	20-50	DB	C	YE	P	Spring		X	N	F	S	0.022	M	M	ac-sl alk	FS	g		
Sassafras	*Sassafras albidum*	900	M	NewC	✓		✓			✓	✓			M	M	Oval	30-60	20-40	DB	M	OR	Y	Spring	✓		Y	M	M	0.069	M	H	sl ac	FS	G/		low
Serviceberry, Downy	*Amelanchier arborea*	400	S	NewC	✓✓	✓	✓✓		✓	✓	✓	✓	✓✓	S	S	Irregular	15-40	10-20	DB	M	OR	W	Spring	✓		Y	S	M	0.004	M	M	acidic	PS	M/IS		low
Silverbell, Carolina	*Halesia tetraptera*	900	M	NewC	✓✓	✓	✓				✓		✓	M	M	Irregular	30-60	20-35	DB	M	YE	W	Spring			Y	M	M	n/a	M	L	ac-sl alk	PS	M/ISC		low
Silverbell, Two-Winged	*Halesia diptera*	400	S	Limit	✓✓	✓	✓				✓	✓		S	S	Rounded	15-20	15-20	DB	M	YE	W	Spring	✓		N	M	M	n/a	M	M	ac-sl alk	PS	M/SC		
Smoketree, American	*Cotinus obovatus*	150	VS	NewC			✓					✓		S	VS	Oval	15-30	10-25	DB	M	MU	P	Spring			Y	M	S	n/a	D	H	sl ac-sl	PS	n/a	✓	
Smoketree, Common	*Cotinus coggygria*	150	VS	Limit			✓					✓		S	VS	Oval	10-15	10-15	DB	M	MU	P	Late Spring			N	M	S	n/a	D	H	sl ac-sl	FS	n/a	✓	
Sourwood	*Oxydendrum arboreum*	900	M	NewC	✓✓		✓							M	M	Spreading	30-60	20-30	DB	M	RE	W	Summer			Y	M	S	0.018	M	M	ac-sl ac	FS	P/A		low
Sparkleberry, Tree	*Vaccinium arboreum*	150	VS	NewC			✓				✓	✓		S	VS	Irregular	10-20	5-10	DB	F	RE	W	Late Spring	✓		Y	S	S	n/a	M	M	ac-sl alk	S	M/A		moderate

Spruce Varieties	*Picea* species	900	M	NoPlnt	not heat tolerant									L	M												N									
Sugarberry	*Celtis laevigata*	1,600	L	Cnsv	✓		✓			X	✓			L	L	Spreading	60-80	25-60	DB	F/M	YE	I		✓		Y	M	M	0.118	M	M	ac	FS	G/I		
Sweetgum	*Liquidambar styraciflua*	1,600	L	Cnsv	✓	X	✓	X	X		✓			L	L	Oval	60-80	40-60	DB	M	MU	I		✓	X	Y	F	L	-0.488	M	L	sl ac	FS	G/		low
Sycamore	*Platanus occidentalis*	1,600	L	NewC	✓						✓	X		L	L	Oval	70-100	30-70	DB	C	BR	I			X	Y	F	M	-0.789	M	M	sl ac-sl	FS	G/		moderate
Tallowtree, Chinese	*Sapium sebiferum*	900	M	NoPlnt	invasive									M	M											N									
Tree-of-Heaven (Ailanthus)	*Ailanthus altissima*	900	M	NoPlnt	invasive; brittle wood;									M	M											N									
Walnut, Black	*Juglans nigra*	1,600	L	NewC	✓	X	✓	X	X		✓			L	L	Rounded	60-70	50-70	DB	M	YE	I		✓	X	Y	M	L	0.086	M	L	acidic	FS	P/S		
Waxmyrtle, Southern	*Myrica cerifera*	150	VS	NewC			✓	✓		✓	X	✓		S	VS	Multi-Stemmed	10-30	10-30	EB	F	EV	I		✓		N	M	S	n/a	M	M	ac-alk	FS	G/		
Willow, Black	*Salix nigra*	900	M	NewC	✓	X		X	X		✓	X		M	M	Irregular	30-40	30-40	DB	F/M	YE	I				Y	F	S	-0.177	W	L	n/a	FS	G/		low
Willow, Weeping	*Salix babylonica*	1,600	L	Limit	✓	X	✓	X	X			X	Limt	L	L	Rounded	30-70	20-70	DB	F/M	YE	I				N	F	M	-0.096	W	M	acidic	FS	mg		
Winterberry, Common	*Ilex verticillata*	150	VS	NewC	✓	✓	✓			✓	✓	✓		S	VS	Multi-Stemmed	5-15	5-10	DB	M	I	I		✓		Y	M	S	n/a	M	L	ac	FS	G/		low
Witchhazel, Common	*Hamamelis virginiana*	400	S	NewC	✓		✓		✓		✓	✓		S	S	Spreading	20-35	20-35	DB	M/	YE	Y	Fall			Y	M	M	-0.009	M	M	sl ac	PS	M/S		low
Yellowwood, American	*Cladrastis kentukea*	900	M	Limit	✓		✓						✓	M	M	Upright	30-50	40-50	DB	M/	YE	W	Spring			N	M	M	0.013	M	M	n/a	PS	P/A		
Zelkova, Japanese	*Zelkova serrata*	1,600	L	NoPlnt			✓		✓		X	X	✓	L	L	Upright	40-80	30-75	DB	M	RE	I				N	M	M	0.084	M	H	ac-sl alk	FS	n/a	✓	low

* Showing signs of possible invasiveness. Limit planting until further investigation

Athens-Clarke County Tree Species List

SPECIES COMMON NAME	LATIN NAME	FOR DEVELOPMEN		RECOMMENDED USES										PHYSICAL CHARACTERISTICS			
		Square Feet of Canopy	Canopy Size Category	Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	Tree Commonly Utilized	Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Cown Form	Typical Range of Mature Tree Height
Fringetree, Chinese	*Chionanthus retusus*	150	VS	NewC		✓	✓			✓		✓		S	VS	Rounded	15-25
Ginkgo (Female)	*Ginkgo biloba*	1,600	L	Limit	✓	X	✓	X	X	X			X	M	L	Pyramidal	50-75
Ginkgo (Male)	*Ginkgo biloba*	1,600	L	NewC	✓	✓	✓✓	✓	✓	X			✓	M	L	Pyramidal	50-75
Goldenraintree	*Koelreuteria paniculata*	400	S	NewC		✓	✓	✓	✓	✓				M	S	Rounded	20-40
Hackberry, Common	*Celtis occidentalis*	1,600	L	NewC	✓		✓				✓			L	L	Spreading	60-90
Hackberry, Georgia	*Celtis tenuifolia*	1,600	L	NewC	✓		✓				✓			M	L	Spreading	25-35
Hawthorne, Washington	*Crataegus phaenopyrum*	400	S	NewC		✓	✓		✓			✓		S	S	Rounded	10-30
Hemlock, Eastern	*Tsuga canadensis*	1,600	L	NewC	✓		✓✓	X	X	✓		X		L	L	Pyramidal	50-100
Hickory, Bitternut	*Carya cordiformis*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	50-100
Hickory, Mockernut	*Carya tomentosa*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	50-100
Hickory, Pignut	*Carya glabra*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	50-100
Hickory, Sand	*Carya pallida*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	40-90
Hickory, Shagbark	*Carya ovata*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	70-100
Hickory, Southern Shagbark	*Carya ovata var. australis*	1,600	L	NewC	✓	X	✓	X	X					L	L	Oval	60-80
Holly, American	*Ilex opaca*	400	S	NewC	✓		✓✓	x		✓		X		M	S	Pyramidal	20-70
Holly, Deciduous (Possumhaw)	*Ilex decidua*	150	VS	NewC	✓		✓				✓	✓		S	VS	Rounded	10-20
Holly, Fosters	*Ilex x attenuata* 'Fosteri'	150	VS	NewC			✓	✓	✓	✓				S	VS	Pyramidal	15-25
Holly, Ornamental Variety	*Ilex* species	150	VS	Limit			✓	✓	✓	✓		✓		S	VS	Rounded	10-20
Holly, Savannah	*Ilex x attenuata* `Savannah'	150	VS	NewC	✓		✓	✓	✓	✓		X		M	VS	Pyramidal	30-45
Holly, Yaupon	*Ilex vomitoria*	150	VS	NewC		✓	✓	✓	✓			✓		S	VS	Irregular	10-25
Honeylocust	*Gleditsia triacanthos*	900	M	NewC	✓		✓	X	X					L	M	Irregular	60-80
Hophornbeam, American	*Ostrya virginiana*	900	M	NewC	✓		✓	✓			✓		✓	M	M	Oval	15-40
Hornbeam, Am. (Ironwood, Blue Beech)	*Carpinus caroliniana*	900	M	NewC	✓✓	✓	✓✓	✓	✓	✓	✓✓		✓	M	M	Oval	20-35
Hornbeam, European	*Carpinus betulus*	900	M	NewC		✓	✓✓	✓	✓	✓			✓	M	M	Oval	40-60
Hornbeam, Japanese	*Carpinus japonica*	400	S	Limit		✓	✓	✓	✓	✓				M	S	Oval	20-30
Katsuratree	*Cercidiphyllym japonicum*	900	M	Limit	✓		✓						✓	M	M	Spreading	40-60
Locust, Black	*Robinia pseudoacacia*	900	M	NewC	✓			X	X		✓			L	M	Spreading	40-90
Magnolia, Cucumber	*Magnolia acuminata*	1,600	L	NewC	✓		✓	X			✓			L	L	Upright	60-80
Magnolia, Japanese (Saucer)	*Magnolia x soulangiana*	900	M	Limit			✓	X				✓		M	M	Upright	20-30
Magnolia, Southern	*Magnolia grandiflora*	1,600	L	NewC	✓✓		✓✓	X		✓		X	✓	L	L	Pyramidal	80-100
Magnolia, Southern 'Little Gem'	*Magnolia grandiflora* 'Little Gem'	150	VS	NewC			✓	X		✓		✓		M	VS	Pyramidal	40-60
Magnolia, Star	*Magnolia stellata*	150	VS	Limit		✓	✓					✓		S	VS	Multi-Stemmed	15-20
Magnolia, Sweetbay	*Magnolia virginiana*	900	M	NewC	✓✓		✓			✓	✓✓		✓	M	M	Oval	30-60
Maple, Amur	*Acer ginnala*	400	S	NewC		✓	✓					✓		S	S	Rounded	15-25
Maple, Chalk	*Acer leucoderme*	900	M	NewC	✓	✓	✓	✓		✓			✓	M	M	Spreading	20-40
Maple, Hedge	*Acer campestre*	900	M	NewC		✓	✓	✓		✓			✓	M	M	Rounded	25-35
Maple, Japanese	*Acer palmatum*	400	S	Limit	X		✓	X				✓		S	S	Oval	15-25
Maple, Norway	*Acer platanoides*	900	M	NoPInt	pest susceptible									M	M		
Maple, Red	*Acer rubrum*	900	M	NewC	✓✓	✓	✓✓	✓	✓	✓	✓✓	X	Limt	M	M	Rounded	40-90
Maple, Silver	*Acer saccharinum*	1,600	L	Limit	X		✓	X	X					L	L	Rounded	50-80
Maple, Southern Sugar (Florida Sugar)	*Acer barbatum*	900	M	NewC	✓✓	✓	✓✓	✓	✓	✓	✓		✓	M	M	Rounded	40-70
Maple, Sugar	*Acer saccharum*	1,600	L	NewC	✓✓	✓	✓✓				✓	X	✓	L	L	Oval	60-80
Maple, Sugar 'Green Mountain'	*Acer saccharum* 'Green Mountain'	1,600	L	NewC	✓✓	✓	✓✓					X	✓	L	L	Oval	60-80
Maple, Sugar 'Legacy'	*Acer saccharum* 'Legacy'	1,600	L	NewC	✓✓	✓	✓✓					X	✓	L	L	Oval	60-80
Maple, Trident	*Acer buergeranum*	900	M	NewC	X	✓	✓✓	✓	✓	✓		x		M	S	Rounded	20-45
Mimosa	*Albizia julibrissin*	900	M	NoPInt	invasive, pest susceptible									M	M		

								ENVIRONMENTALCHARACTERISTICS AND TOLERANCES									
Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	Native Tree to Athens-Clarke Co.	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
10-15	DB	M/C	YE	W	Spring	✓		N	S	S	n/a	M	M	acidic	PS	n/a	
30-60	DB	C	YE	I			X	N	S	L	0.108	M	H	sl ac	FS	g	✓
30-60	DB	C	YE	I				N	S	L	0.108	M	H	sl ac	FS	g	✓
20-40	DB	M	YE	Y	Summer			N	M	M	-0.087	M	H	sl ac-sl alk	FS	n/a	
25-60	DB	F/M	YE	I		✓		Y	M	M	0.060	M	H	sl ac-sl alk	FS	n/a	✓
25-35	DB	F/M	YE	I		✓		Y	S	M	n/a	D	H	sl ac-sl alk	FS	M/IS	
5-25	DB	F	MU	W	Late Spring	✓		N	S	S	0.017	M	M	sl ac-sl alk	FS	g	
30-50	EC	F	EV	I		✓		N	S	L		M	M	sl ac-sl alk	PS		
50-75	DB	M	YE	I		✓		Y	F	L	0.069	M	L	acidic	FS	P/S	
50-75	DB	M/C	YE	I		✓	X	Y	S	L	0.059	D	H	sl ac	FS	MP/S	
50-75	DB	M	YE	I		✓		Y	S	L	0.058	M	H	sl ac	FS	M/S	
20-40	DB	M	YE	I		✓		Y	S	M	n/a	D	H	sl ac	FS	M/	
50-75	DB	M	YE	I		✓		Y	S	L	0.064	M	M	sl ac	FS	P/S	
40-60	DB	M	YE	I		✓		Y	S	L	n/a	M	M	sl ac	FS	n/a	
15-25	EB	M	EV	I		✓		Y	S	L	0.013	M	H	acidic	PS	G/	✓
10-20	DB	F	I	I		✓		Y	M	S	n/a	W	H	ac-alk	PS	G/	
10-15	EB	F/M	EV	I		✓		N	S	S	n/a	M	H	sl ac	FS	n/a	✓
10-15	EB	M	EV	I				N	S	S	n/a	M	H	ac	FS	n/a	
10-15	EB	M	EV	I		✓		N	M	S	n/a	M	H	ac-sl alk	FS	n/a	
5-10	EB	F	EV	I		✓		Y	S	S	n/a	D	H	ac-alk	FS	G/	✓
30-50	DB	F	YE	I				Y	F	S	0.009	M	H	sl ac-sl alk	FS	G/	✓
10-30	DB	F/M	YE	W	Summer	✓		Y	S	M	0.032	M	H	ac-alk	SH	M/S	✓
15-30	DB	F/M	YE	I		✓		Y	S	M	0.009	M	M	sl ac-sl alk	PS	M/SC	
35-40	DB	F/M	YE	I		✓		N	S	M	0.037	M	H	ac-alk	PS	n/a	✓
20-30	DB	M	RE	I				N	S	M	n/a	M	M	adapt	PS	n/a	
35-60	DB	M	YE	I				N	F	L	n/a	M	L	ac-sl alk	FS	pm	
20-40	DB	F	YE	W	Spring	✓		Y	F	M	-0.123	M	H	sl ac-sl alk	FS	G/P	✓
20-60	DB	C	YE	W	Spring	✓		Y	F	M	n/a	M	L	acidic	PS	M/I	
10-30	DB	C	YE	P	Late Winter			N	M	S	0.009	M	L	acidic	FS	n/a	
30-50	EB	C	EV	W	Late Spring	✓	X	Y	M	L	0.002	M	M	acidic	FS	M/I	
20-30	EB	C	EV	W	Late Spring	✓	X	Y	S	M	n/a	M	L	acidic	FS	n/a	
15-20	DB	M	YE	W	Late Winter	✓		N	S	S	n/a	M	M	acidic	PS	n/a	
20-40	EB	C	EV	W	Summer	✓		Y	F	M	n/a	W	L	acidic	PS	G/	
15-25	DB	M	RE	W	Spring			N	M	M	0.008	M	M	adapt	FS	n/a	
10-30	DB	M	I	I				Y	M	M	n/a	M	H	ac-sl alk	FS	P/A	✓
25-35	DB	M	YE	I				N	S	S	0.017	M	H	ac-alk	FS	n/a	✓
10-25	DB	M	RE	I				N	S	S	0.008	M	L	sl ac-sl alk	PS	n/a	
								N									
20-35	DB	M	RE	R	Late Winter	✓		Y	F	L	0.084	M	L	sl ac	FS	G/	
40-60	DB	M	YE	I				N	F	S	0.084	M	H	ac	FS	P/A	
25-60	DB	M	OR	I				Y	M	M	n/a	M	H	ac	FS	M/IS	✓
30-50	DB	M	OR	I		✓		Y	M	L	0.100	M	M	sl ac-sl alk	PS	pm	
30-50	DB	M	OR	I		✓		Y	F	L	0.100	M	M	sl ac-sl alk	PS	n/a	
30-50	DB	M	OR	I		✓		Y	F	L	0.100	M	M	sl ac-sl alk	PS	n/a	
20-30	DB	M	MU	I				N	F	M	n/a	M	M	ac-alk	FS	n/a	✓
								N									

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		Square Feet of Canopy	Canopy Size Category	Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	Tree Commonly Utilized	Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Cown Form	Typical Range of Mature Tree Height
Mulberry, Red	*Morus rubra*	900	M	NewC	✓	X		X	X		✓			L	M	Rounded	40-70
Oak, Black	*Quercus velutina*	1,600	L	NewC	✓		✓				✓		✓	L	L	Rounded	70-90
Oak, Cherrybark	*Quercus falcata var. pagodifolia*	1,600	L	NewC	✓		✓				✓		✓	L	L	Rounded	60-100
Oak, Chestnut	*Quercus prinus*	1,600	L	NewC	✓	X	✓✓	X	X		X		✓	L	L	Rounded	50-80
Oak, Diamond Leaf (Laurel)	*Quercus laurifolia*	1,600	L	NewC	✓	✓	✓						✓	L	L	Rounded	60-80
Oak, English	*Quercus robur*	1,600	L	Limit		✓	✓						✓	L	L	Rounded	40-60
Oak, Georgia	*Quercus georgiana*	1,600	L	NewC	✓		✓						✓	L	L	Rounded	20-40
Oak, Laurel	*Quercus hemisphaerica*	1,600	L	NewC	✓	✓	✓						✓	L	L	Rounded	60-90
Oak, Laurel 'Darlington'	*Quercus hemisphaerica* 'Darlington'	1,600	L	NewC	✓	✓	✓✓						✓	L	L	Rounded	60-90
Oak, Live	*Quercus virginiana*	1,600	L	Cnsv	out of climate zone range									L	L		
Oak, Northern Red	*Quercus rubra*	1,600	L	NewC	✓✓	✓	✓✓						✓	L	L	Rounded	60-100
Oak, Nuttall	*Quercus nuttalli*	1,600	L	NewC	✓	✓	✓						✓	L	L	Rounded	60-80
Oak, Oglethorpe	*Quercus oglethorpensis*	1,600	L	NewC	✓	✓	✓						✓	M	L	Rounded	40-70
Oak, Overcup	*Quercus lyrata*	1,600	L	NewC	✓✓	✓	✓✓				✓		✓	L	L	Rounded	30-45
Oak, Pin	*Quercus palustris*	1,600	L	Limit	X	✓	✓	X	X		X			L	L	Pyramidal	40-100
Oak, Post	*Quercus stellata*	1,600	L	NewC	✓	✓	✓✓						✓	L	L	Rounded	40-50
Oak, Sawtooth	*Quercus acutissima*	1,600	L	Limit	X	X	✓	X	X		0		✓	M	L	Oval	50-60
Oak, Scarlet	*Quercus coccinea*	1,600	L	NewC	✓✓	✓	✓✓	✓	✓				✓	L	L	Rounded	50-80
Oak, Shumard	*Quercus shumardii*	1,600	L	NewC	✓✓	✓	✓✓	✓	✓				✓	L	L	Rounded	60-100
Oak, Southern Red	*Quercus falcata*	1,600	L	NewC	✓✓	✓	✓✓				✓		✓✓	L	L	Rounded	60-100
Oak, Swamp Chestnut	*Quercus michauxii*	1,600	L	NewC	✓	X	✓	X	X		✓		✓	L	L	Oval	70-90
Oak, Swamp White	*Quercus bicolor*	1,600	L	NewC	✓	✓	✓				✓		✓✓	L	L	Oval	70-90
Oak, Water	*Quercus nigra*	1,600	L	Limit		X	X	X	X	X	✓✓	X	Limit	L	L	Rounded	50-100
Oak, White	*Quercus alba*	1,600	L	NewC	✓✓	✓	✓✓						✓✓	L	L	Rounded	60-100
Oak, Willow	*Quercus phellos*	1,600	L	NewC	✓✓	✓	✓✓	✓	✓	X	✓✓	X	✓✓	L	L	Rounded	40-100
Orange, Osage	*Maclura pomifera*	900	M	NewC	✓	X	✓	X	X		X		X	M	M	Spreading	30-40
Parrotia	*Parrotia persica*	400	S	Limit		✓	✓					✓		S	S	Rounded	20-40
Pear, Callery	*Pyrus calleryana*	900	M	NoPInt	Invasive - defective branch structure									M	M	Oval	
Pecan	*Carya illinoensis*	1,600	L	NewC	✓	X	✓	X	X	X				L	L	Upright	60-100
Persimmon, Common	*Diospyros virginiana*	900	M	NewC	✓	X	✓	X	X		✓		✓	L	M	Oval	70-80
Pine, Eastern White	*Pinus strobus*	1,600	L	NewC	not heat tolerant									L	L		
Pine, Loblolly	*Pinus taeda*	1,600	L	NewC	✓✓	✓	✓	✓		✓	✓	X	Limt	L	L	Pyramidal	80-100
Pine, Longleaf	*Pinus palustris*	1,600	L	NewC			✓	✓		✓	X			L	L	Pyramidal	60-100
Pine, Shortleaf	*Pinus echinata*	1,600	L	NewC	✓✓	✓	✓	✓		✓	✓	X	✓	L	L	Pyramidal	60-100
Pine, Slash	*Pinus elliotii*	1,600	L	Cnsv			✓	✓		✓	X			L	L	Pyramidal	60-100
Pine, Virginia	*Pinus virginiana*	900	M	NewC	✓		✓	✓		✓	✓			M	M	Pyramidal	15-70
Pistache, Chinese	*Pistacia chinensis*	900	M	Limit		✓	✓✓	✓	✓	✓	X		✓	M	M	Rounded	60-80
Planetree, London	*Platanus x acerifolia*	1,600	L	NewC	✓	✓	✓✓	✓	✓				Limt	L	L	Irregular	60-100
Plum, Chickasaw	*Prunus angustifolia*	150	VS	NewC	✓	X	✓			✓		✓		S	VS	Rounded	10-20
Plum, Purpleleaf	*Prunus cerasifera*	400	S	Limit		✓	✓			✓		✓		S	S	Rounded	10-25
Poplar, Lombardy	*Populus nigra var. italica*	900	M	NoPInt	susceptable to pests and disease									L	M		
Poplar, White	*Populus alba*	900	M	Cnsv			✓							L	M	Oval	40-100
Poplar, Yellow (Tuliptree)	*Liriodendron tulipifera*	1,600	L	NewC	✓✓		✓				✓✓	X	Limt	L	L	Oval	80-150
Redbud, Eastern	*Cercis canadensis*	400	S	NewC	✓✓	✓	✓✓		✓	✓	✓	✓		S	S	Spreading	25-50
Redbud, Eastern White	*Cercis canadensis var. alba*	400	S	NewC	✓	✓	✓✓		✓	✓	✓	✓		S	S	Spreading	20-30
Redbud, 'Forest Pansy'	*Cercis canadensis* 'Forest Pansy'	400	S	NewC	✓	✓	✓✓		✓	✓	✓	✓		S	S	Spreading	20-30

								ENVIRONMENTALCHARACTERISTICS AND TOLERANCES									
Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	Native Tree to Athens-Clarke Co.	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
20-50	DB	C	YE	I		✓	X	Y	F	S	0.099	M	H	sl ac-sl alk	FS	G/	
50-60	DB	M	RE	I		✓		Y	M	L	-0.253	D	H	sl ac	FS	G/	
30-50	DB	M	RE	I		✓		Y	M	L	n/a	M	M	ac	FS	G/	
30-60	DB	M	RE	I		✓	X	Y	S	L	-0.342	D	H	acidic	FS	GM/S	
50-60	DB	M	YE	I		✓		N	M	L	n/a	M	M	ac-sl alk	FS	G/	
40-60	DB	M	BR	I		✓		N	S	M	-0.275	M	M	sl ac-sl alk	FS	n/a	
10-30	DB	M	BR	I		✓		Y	M	M	n/a	D	H	ac-alk	FS	n/a	
50-60	DB	M	BR	I		✓		N	F	M	-0.314	D	H	adapt	FS	n/a	
50-60	DB	F	BR	I		✓		N	F	M	n/a	D	H	adapt	FS	n/a	
								N									
30-60	DB	M	RE	I		✓		Y	F	L	-0.503	M	M	ac-sl ac	FS	GM/SC	
35-50	DB	M	RE	I		✓		Y	M	L	n/a	M	M	ac	FS	n/a	
30-50	DB	M	RE	I		✓		Y	S	M	n/a	W	M	n/a	FS	n/a	
30-45	DB	M	BR	I		✓		Y	M	L	-0.159	W	M	ac-sl alk	FS	G/	
20-50	DB	M	RE	I		✓		N	M	M	-0.483	M	M	acidic	FS	mg	
35-40	DB	M/C	BR	I		✓		Y	M	L	-0.327	D	H	ac-sl alk	FS	G/	
30-60	DB	M	YE	I		✓	X	N	F	M	-0.159	M	M	ac-sl alk	FS	n/a	
30-50	DB	M	RE	I		✓		Y	M	L	-0.592	D	H	sl ac	FS	G/	
30-70	DB	M	RE	I		✓		Y	F	L	-0.265	M	H	ac-alk	FS	G/	
30-70	DB	M	OR	I		✓		Y	M	L	-0.576	M	H	ac	FS	G/	
30-60	DB	M	YE	I		✓		Y	M	L	-0.544	M	M	n/a	FS	G/	
30-60	DB	M	YE	I		✓		Y	M	L	-0.457	M	M	n/a	FS	G/	
30-70	DB	M	YE	I		✓		Y	F	M	-0.451	M	M	ac-sl alk	FS	G/	
30-80	DB	M	RE	I		✓		Y	S	L	-0.348	M	M	acidic	FS	GM/S	
30-60	DB	F/M	YE	I		✓		Y	F	L	-0.314	M	H	acidic	FS	GM/	✓
30-40	DB	M/C	YE	I		✓	X	N	F	L	0.000	D	H	sl ac-sl alk	FS	n/a	✓
20-35	DB	M	OR	R	Spring			N	F	S	n/a	M	M	ac-sl alk		n/a	
						✓	X	N									
30-75	DB	M/C	YE	I		✓	X	N	S	M	0.088	M	L	sl ac-sl alk	FS	mg	
40-60	DB	M	RE	I		✓	X	Y	M	S	0.058	M	H	ac-alk	FS	G/P	✓
								N									
20-40	EC	F	EV	I		✓		Y	F	M	0.016	M	M	acidic	FS	G/	
20-40	EC	F	EV	I		✓		N	M	L	0.010	M	H	ac-sl alk	FS	GM/C	
20-40	EC	F	EV	I		✓		Y	M	L	0.008	M	H	ac	PS	GM/P	
20-50	EC	F	EV	I		✓		N	F	M	0.010	M	M	ac-sl alk	FS	G/	
10-35	EC	F	EV	I		✓		Y	F	S	0.003	M	H	ac	FS	G/	✓
40-50	DB	M	RE	G	Spring	✓		N	M	M	n/a	M	H	ac-alk	FS	n/a	✓
20-80	DB	C	YE	I				N	F	M	-0.415	M	H	sl ac-sl alk	FS	pg	✓
10-20	DB	F	I	W	Late Winter	✓		Y	M	S	n/a	M	H	sl ac-sl alk	FS	M/IS	
10-25	DB	F	RE	P/W	Spring	✓		N	M	S	0.014	M	M	sl ac-sl alk	FS	mg	
								N									
20-60	DB	C	YE	I				N	F	M	-0.417	M	H	ac-alk	FS	n/a	
30-60	DB	C	YE	Y	Spring	✓		Y	M	L	0.171	M	L	sl ac	FS	P/IS	
15-25	DB	M	YE	P	Spring	✓		Y	F	S	0.012	M	M	ac-sl ac	PS	M/S	
15-25	DB	M	YE	W	Spring	✓		Y	F	S	n/a	M	M	ac-sl ac	PS	n/a	
15-25	DB	M	YE	P	Spring	✓		Y	F	S	n/a	M	L	ac-sl ac	PS	n/a	

Athens-Clarke County Tree Species List

SPECIES COMMON NAME	LATIN NAME	FOR DEVELOPMEN		RECOMMENDED USES										PHYSICAL CHARACTERISTICS			
		Square Feet of Canopy	Canopy Size Category	Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	Tree Commonly Utilized	Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Cown Form	Typical Range of Mature Tree Height
Redbud, 'Oklahoma'	*Cercis reniformis* 'Oklahoma'	400	S	NewC		✓	✓✓	✓	✓			✓		S	S	Rounded	20-25
Redbud, 'Texas White'	*Cercis reniformis* 'Texas White'	400	S	NewC		✓	✓✓	✓	✓			✓		S	S	Rounded	20-25
Redcedar, Eastern	*Juniperus virginiana*	900	M	NewC	✓		✓✓	✓		✓	✓	X	✓	M	M	Pyramidal	40-60
Redwood, Dawn	*Metasequoia glyptostroboides*	900	M	NewC	✓		✓✓	✓		✓			✓✓	L	M	Pyramidal	75-100
Royal Paulownia (Princess-Tree)	*Paulownia tomentosa*	900	M	NoPInt		X	✓	X	X		X			M	M	Irregular	30-50
Sassafras	*Sassafras albidum*	900	M	NewC	✓		✓			✓	✓			M	M	Oval	30-60
Serviceberry, Downy	*Amelanchier arborea*	400	S	NewC	✓✓	✓	✓✓		✓	✓	✓	✓	✓✓	S	S	Irregular	15-40
Silverbell, Carolina	*Halesia tetraptera*	900	M	NewC	✓✓	✓	✓				✓		✓	M	M	Irregular	30-60
Silverbell, Two-Winged	*Halesia diptera*	400	S	Limit	✓✓	✓	✓				✓	✓		S	S	Rounded	15-20
Smoketree, American	*Cotinus obovatus*	150	VS	NewC			✓					✓		S	VS	Oval	15-30
Smoketree, Common	*Cotinus coggygria*	150	VS	Limit			✓					✓		S	VS	Oval	10-15
Sourwood	*Oxydendrum arboreum*	900	M	NewC	✓✓		✓							M	M	Spreading	30-60
Sparkleberry, Tree	*Vaccinium arboreum*	150	VS	NewC			✓				✓	✓		S	VS	Irregular	10-20
Spruce Varieties	*Picea* species	900	M	NoPInt	not heat tolerant									L	M		
Sugarberry	*Celtis laevigata*	1,600	L	Cnsv	✓		✓			X	✓			L	L	Spreading	60-80
Sweetgum	*Liquidambar styraciflua*	1,600	L	Cnsv	✓	X	✓	X	X		✓			L	L	Oval	60-80
Sycamore	*Platanus occidentalis*	1,600	L	NewC	✓						✓	X		L	L	Oval	70-100
Tallowtree, Chinese	*Sapium sebiferum*	900	M	NoPInt	invasive									M	M		
Tree-of-Heaven (Ailanthus)	*Ailanthus altissima*	900	M	NoPInt	invasive; brittle wood;									M	M		
Walnut, Black	*Juglans nigra*	1,600	L	NewC	✓	X	✓	X	X		✓			L	L	Rounded	60-70
Waxmyrtle, Southern	*Myrica cerifera*	150	VS	NewC			✓	✓		✓	X	✓		S	VS	Multi-Stemmed	10-30
Willow, Black	*Salix nigra*	900	M	NewC	✓	X		X	X		✓	X		M	M	Irregular	30-40
Willow, Weeping	*Salix babylonica*	1,600	L	Limit	✓	X	✓	X	X			X	Limt	L	L	Rounded	30-70
Winterberry, Common	*Ilex verticillata*	150	VS	NewC	✓	✓	✓			✓	✓	✓		S	VS	Multi-Stemmed	5-15
Witchhazel, Common	*Hamamelis virginiana*	400	S	NewC	✓		✓		✓		✓	✓		S	S	Spreading	20-35
Yellowwood, American	*Cladrastis kentukea*	900	M	Limit	✓		✓						✓	M	M	Upright	30-50
Zelkova, Japanese	*Zelkova serrata*	1,600	L	NoPInt			✓		✓		X	X	✓	L	L	Upright	40-80

* Showing signs of possible invasiveness. Limit planting until further investigation

								ENVIRONMENTALCHARACTERISTICS AND TOLERANCES									
Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	Native Tree to Athens-Clarke Co.	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
15-20	DB	M	YE	P	Spring	✓		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	✓
15-20	DB	M	YE	W	Spring	✓		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	
10-20	EC	F	EV	I		✓		Y	S	M	-0.010	M	H	ac-nu	FS	M/IS	
25-30	DC	F	BR	I				N	F	L	0.163	M	M	n/a	FS	n/a	✓
20-50	DB	C	YE	P	Spring		X	N	F	S	0.022	M	M	ac-sl alk	FS	g	
20-40	DB	M	OR	Y	Spring	✓		Y	M	M	0.069	M	H	sl ac	FS	G/	
10-20	DB	M	OR	W	Spring	✓		Y	S	M	0.004	M	M	acidic	PS	M/IS	
20-35	DB	M	YE	W	Spring			Y	M	M	n/a	M	L	ac-sl alk	PS	M/ISC	
15-20	DB	M	YE	W	Spring	✓		N	M	M	n/a	M	M	ac-sl alk	PS	M/SC	
10-25	DB	M	MU	P	Spring			Y	M	S	n/a	D	H	sl ac-sl alk	PS	n/a	✓
10-15	DB	M	MU	P	Late Spring			N	M	S	n/a	D	H	sl ac-sl alk	FS	n/a	✓
20-30	DB	M	RE	W	Summer			Y	M	S	0.018	M	M	ac-sl ac	FS	P/A	
5-10	DB	F	RE	W	Late Spring	✓		Y	S	S	n/a	M	M	ac-sl alk	S	M/A	
								N									
25-60	DB	F/M	YE	I		✓		Y	M	M	0.118	M	M	ac	FS	G/I	
40-60	DB	M	MU	I		✓	X	Y	F	L	-0.488	M	L	sl ac	FS	G/	
30-70	DB	C	BR	I			X	Y	F	M	-0.789	M	M	sl ac-sl alk	FS	G/	
								N									
								N									
50-70	DB	M	YE	I		✓	X	Y	M	L	0.086	M	L	acidic	FS	P/IS	
10-30	EB	F	EV	I		✓		N	M	S	n/a	M	M	ac-alk	FS	G/	
30-40	DB	F/M	YE	I				Y	F	S	-0.177	W	L	n/a	FS	G/	
20-70	DB	F/M	YE	I				N	F	M	-0.096	W	M	acidic	FS	mg	
5-10	DB	M	I	I		✓		Y	M	S	n/a	M	L	ac	FS	G/	
20-35	DB	M/C	YE	Y	Fall			Y	M	M	-0.009	M	M	sl ac	PS	M/IS	
40-50	DB	M/C	YE	W	Spring			N	M	M	0.013	M	M	n/a	PS	P/A	
30-75	DB	M	RE	I				N	M	M	0.084	M	H	ac-sl alk	FS	n/a	✓