

## I. ALAMEDA STREET TREE MATRIX

		Deciduous/Evergreen	Fall Color	Flower Color	Flower Period	Fruit	Fruiting Period	Shape	Growth Rate Per Year (once established)	Height at Maturity (feet)	Spread at Maturity (feet)	Trunk Diameter at Breast Height at Maturity (inches)	Longevity (years)
<i>Acer buergeranum</i>	Trident Maple	D	Red or orange	Yellow	Spring	Brown winged seed, 0.5-1.5"	Summer	Rounded, spreading with a low canopy	24-36"	25	25	20	50-100
<i>Acer campestre</i> 'Queen Elizabeth'	Hedge Maple	D	Gold	Inconspicuous	Spring	Brown winged seed, 0.5-1.5"	Summer or Fall	Upright	12-36"	35	35	25	50-100
<i>Acer x freemanii</i> 'Autumn Blaze'	Autumn Blaze Hybrid Maple	D	Red	Inconspicuous	Spring	Brown winged seed, 1.5-3"	Fall	Conical or oval, erect of spreading with a high canopy	36"	50	40	30	50-100
<i>Acer nigrum</i> 'Green Column'	Black Maple	D	Gold	Inconspicuous	Spring	Brown winged seed, 0.5-1.5"	Fall	Oval or rounded	24"	65	50	25	50-100
<i>Acer palmatum</i> *	Japanese Maple	D	Red, gold, orange, bronze, purple or multicolor	Inconspicuous	Spring	Brown winged seed, 0.5-1.5"	Summer	Rounded, umbrella or vase	12-24"	25	25	15	50-100
<i>Acer paxill</i> *	Evergreen Maple	E	N/A	Inconspicuous	Spring	Brown winged seed, 0.5-1.5"	Summer	Rounded, erect or spreading with a low canopy	12"	35	35	20	50-100
<i>Acer rubrum</i> 'Armstrong'	Scarlet Maple	D	Yellow or red	Red	Spring	Brown winged seed, 1.5-3"	Summer	Columnar, erect	36"	45	15	25	50-100
<i>Acer rubrum</i> 'Bowhall'	Bowhall Maple	D	Red, gold or orange	Red	Spring	Red winged seed, 1.5-3"	Summer	Upright, narrow	36"	40	15	25	50-100
<i>Acer rubrum</i> 'Brandywine'	Brandywine Maple	D	Deep red	Red	Spring	Seedless	N/A	Oval	36"	40	30	25	50-100
<i>Acer rubrum</i> 'Frank Jr.'	Redpointe Maple	D	Red	Red	Spring	Brown winged seed, 1.5-3"	Summer	Broadly pyramidal	36"	45	30	25	50-100
<i>Acer rubrum</i> 'October Glory'	October Glory Maple	D	Deep red	Red	Spring	Red winged seed, 1.5-3"	Summer	Oval or rounded	36"	40	35	25	50-100
<i>Acer rubrum</i> 'Somerset'	Somerset Maple	D	Red	Red	Spring	Seedless	N/A	Oval or rounded	36"	45	35	25	50-100
<i>Acer rubrum</i> 'Sun Valley'	Sun Valley Maple	D	Red	Red	Spring	Seedless	N/A	Oval, densely branched	36"	40	35	25	50-100
<i>Acer saccharum</i> 'Autumn Splendor' <i>Acer saccharum</i> 'Bonfire' <i>Acer saccharum</i> 'Commemoration' <i>Acer saccharum</i> 'Crescendo' <i>Acer saccharum</i> 'Fall Fiesta'	Sugar Maple	D	Orange or yellow	Inconspicuous	Spring	Brown winged seed, 1.5-3"	Summer	Oval or rounded, erect or spreading	8-18"	65	40	30	>100
<i>Aesculus carnea</i> 'Briotti'	Red Horsechestnut	D	No change in leaf color	Showy, fragrant, red or rose	Spring	Brown capsule, 0.5-1.5"	Summer or Fall	Rounded or Umbrella, erect or spreading with a low canopy	12-18"	35	30	20	50-100
<i>Aesculus hippocastanum</i> 'Baumannii'	European Horsechestnut	D	Gold	White	Spring	Seedless	N/A	Oval or rounded	12-24"	65	40	25	50-100

\* trees to be considered on an experimental basis, as they have yet to be proven as successful street trees in Alameda (see discussion in sec. 3.2)

\*\* minimum planter width may be less if tree is located within area marked in Appendix 13

Tolerates Full Sun	Tolerates Shade	Requires Good Drainage	Tolerates Poor Drainage	Tolerates Moist Soil	Drought Tolerant	Tolerates Sprinklers	Soil Salinity Tolerance	Tolerates Alkaline Soil	Minimum Planting Width (feet)	Fire-scape Damage Potential	Nursery Availability	Nursery Origin	Stock Type			
✓	✓			✓				✓	3	Moderate	Good	California	Container		Susceptible to aphids, root rot and verticillium wilt.	A good Japanese Maple substitute. Does not get good fall color in Alameda.
✓	✓	✓			✓	✓		✓	3	Low	Poor	Oregon	B&B and bareroot		Susceptible to verticillium wilt and tar spot.	Suitable for use in parking lot islands and sidewalk tree pits.
✓	✓	✓		✓		✓			4	Moderate	Good	California	Container		Susceptible to aphids, beetle borers and scales, oak root rot, root rot, sooty mold and verticillium wilt.	A fast growing hybrid of Red and Silver maple. Fall color in Alameda has been variable. Develops chlorosis in alkaline soils.
✓	✓	✓			✓	✓			3	Moderate	Good	Oregon	Container		Susceptible to anthracnose, oak root rot, phytophthora, powdery mildew, root rot and verticillium wilt.	Reputed to be one of the toughest maples for street tree use. Tolerant of severe heat and drought once established.
	✓	✓		✓		✓	✓		3	Low	Good	California and Oregon	B&B and container		Resistant to oak root fungus. Susceptible to root rot, verticillium wilt and sun scorch.	Use as understory with larger trees. Green-leaf varieties can tolerate more sun.
	✓			✓				✓	3	Low	Poor				Susceptible to aphids, root rot and verticillium wilt.	
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	Not to be planted under high voltage lines.
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	Not to be planted under high voltage lines.
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	Very good fall color and a possible <i>Liquidambar</i> substitute. Colors ten day later than most <i>A. rubrum</i> cultivars.
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	Very good fall color and a possible <i>Liquidambar</i> substitute. The last of the <i>A. rubrum</i> cultivars to color in the fall.
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	
✓	✓		✓	✓	✓	✓	✓		3	Moderate	Good	California and Oregon	Bareroot and container		Susceptible to beetle borers and scales, oak root rot, phytophthora, root rot and verticillium wilt.	
✓	✓		✓			✓	✓		3	Moderate	Good	Oregon	Bareroot		Susceptible to beetle borers and scales, anthracnose, oak root rot, powdery mildew, root rot and verticillium wilt.	
✓	✓		✓	✓		✓	✓		3	Moderate	Good	California and Oregon	Container	Flowers, dry fruit, leaves	Susceptible to beetle borers, chlorosis, powdery mildew and rust.	Horizontal branching required pruning in early years.
✓		✓		✓		✓		✓	4	Moderate	Poor			Flowers, leaves	Susceptible to white-marked tussock moth and Japanese beetle, leaf blotch, scorch, powdery mildew and leaf spot.	

		Deciduous/ Evergreen	Fall Color	Flower Color	Flower Period	Fruit	Fruiting Period	Shape	Growth Rate Per Year (once established)	Height at Maturity (feet)	Spread at Maturity (feet)	Trunk Diameter at Breast Height at Maturity (inches)	Longevity (years)
<i>Alsophila australis</i> *	Australian Tree Fern	E	N/A	N/A	N/A	N/A	N/A	Rounded or vase, erect or spreading with a low canopy	35"	25	25	15	<50
<i>Angophora costata</i> *	Gum Myrtle	E	N/A	Showy, white	Summer	Brown capsule, 0.25-0.5"	Fall	Conical or rounded, erect or spreading with high canopy	24"	50	40	25	50-100
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	D	Gold	Inconspicuous	Spring	Catkins	Spring	Pyramidal	24-36"	45	30	30	50-100
<i>Carpinus betulus</i> 'Fastigata'	European Hornbeam	D	Red, gold or multicolor	Inconspicuous	Spring	Brown winged seed, 0.25-0.5"	Winter or Summer	Columnar or conical, erect with low canopy	12-24"	35	40	15	50-100
<i>Carpinus betulus</i> 'Frans Fontaine'	European Hornbeam	D	Red, gold or multicolor	Inconspicuous	Spring	Brown winged seed, 0.25-0.5"	Winter or Summer	Columnar or conical, erect with low canopy	12-24"	35	15	15	50-100
<i>Carpinus caroliniana</i> *	American Hornbeam	D	Red, gold, orange or multicolor	Inconspicuous	Spring	Small winged seed, 0.25-0.5"	Winter or Summer	Rounded or umbrella, erect with a low canopy	12-24"	35	30	20	50-100
<i>Cercis canadensis</i> *	Eastern Redbud	D	Gold	Pink	Spring	Brown pods, 1.5-3"	Summer	Rounded or Umbrella, erect or spreading with a low canopy	36"	25	25	10	<50
<i>Chionanthus retusus</i> *	Chinese Fringe Tree	D	Gold	White	Summer	Purple drupe, 0.5-1.5"	Fall or Winter	Rounded or umbrella, spreading	24"	20	15	15	<50
<i>Corylus colurna</i> *	Turkish Hazel	D	Yellow	Green or yellow	Winter	Small brown nut enclosed in leafy bracts, edible, 0.25-0.5"	Fall	Oval or umbrella, erect or spreading and covers an extensive area	12-24"	60	35	25	50-100
<i>Corymbia ficifolia</i>	Red Flowering Gum	E	N/A	Showy, orange, pink, red or rose	Spring, Summer, Fall or Winter	Brown capsule, 0.5-1.5"	Spring, Summer or Fall	Rounded, erect or spreading with a low canopy	24"	35	30	30	50-100
<i>Crataegus x 'Vaughn'</i> *	Vaughn Hawthorn	D	Red or orange	White	Spring	Red pome, 0.25", persisting through winter	Fall	Oval, erect or spreading with a low canopy	24-36"	25	20	15	50-100
<i>Cupressus sempervirens</i> *	Italian Cypress	E	N/A	Inconspicuous	Spring	Brown cone, 0.5-1.5"	Fall	Columnar, erect	36"	50	30	25	50-150
<i>Fagus sylvatica</i>	European Beech	D	Bronze	Inconspicuous	Spring	Brown nut in spiny husk, 0.5-1.5", edible	Fall	Broadly pyramidal to broadly oval	24"	60	50	35	50-100
<i>Ginkgo biloba</i> 'Fairmont'	Fairmont Maidenhair Tree	D	Gold	Inconspicuous	Winter	Fruitless	N/A	Pyramidal with dominant leader	12-24"	50	25	40	>100
<i>Ginkgo biloba</i> 'Golden Colonnade'	Golden Colonnade Maidenhair Tree	D	Gold	Inconspicuous	Winter	Fruitless	N/A	Narrow, conical	12-18"	45	25	25	>100
<i>Ginkgo biloba</i> 'Magyar'	Magyar Maidenhair Tree	D	Gold	Inconspicuous	Winter	Fruitless	N/A	Narrow, pyramidal	12-18"	50	25	25	>100

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 \*\* minimum planter width may be less if tree is located within area marked in Appendix 13

Tolerates Full Sun	Tolerates Shade	Requires Good Drainage	Tolerates Poor Drainage	Tolerates Wet Soil	Drought Tolerant	Tolerates Salt	Seaside Tolerance	Tolerates Alkaline Soil	Minimum Planting Width (feet)	Hardscape Damage Potential	Nursery Availability	Nursery Origin	Stock Type				
✓	✓	✓		✓			✓	✓	2	Low	Poor			Leaves	Susceptible to spider mites and root rot.	Grows best in partial shade. Also known as <i>Cyathea australis</i> , <i>C. cooperi</i> , <i>Alsophila cooperi</i> and <i>Sphaeropteris cooperi</i> .	
✓			✓	✓	✓		✓	✓	3	Moderate	Poor			Exfoliating bark	Resistant to oak root fungus.	Tolerates smog.	
✓	✓	✓		✓					3	Low	Good	California	Container		Susceptible to leaf miner, leaf spot and scorch.	Heritage Birch requires an acid to neutral soil, and will turn chlorotic in alkaline soil. Prefers moist soil. Reportedly resistant to Bronze Birch Borer.	
✓	✓			✓	✓	✓	✓		3	Low	Good	California and Oregon	Bareroot and container	Dry fruit	Resistant to verticillium wilt. Susceptible to aphids, scales, oak root rot and root rot.	Needs very little pruning to maintain good form. 2" leaves produce a handsome texture, and the winter twig pattern is attractive.	
✓	✓			✓	✓	✓	✓		3	Low	Good	California and Oregon	Bareroot and container	Dry fruit	Resistant to verticillium wilt. Susceptible to aphids, scales, oak root rot and root rot.	Needs very little pruning to maintain good form. 2" leaves produce a handsome texture, and the winter twig pattern is attractive. 'Frans Fontaine' is more slender than 'Fastigata'.	
✓	✓	✓		✓			✓		3	Low	Good	California and Oregon	Bareroot and container	Dry fruit	Resistant to verticillium wilt. Susceptible to oak root rot and root rot.	Often multi-stemmed. Requires a moderate amount of water.	
✓	✓			✓			✓	✓	3	Low	Good	California and Oregon	Container	Dry fruit	Susceptible to caterpillars and scales, anthracnose, crown rot, oak root rot, phytophthora, root rot and verticillium wilt.	Showy pink flowers bloom best in full sun, and with moderate moisture. It may require light top pruning (not topping) of vigorous top shoots to maintain its height below 25'.	
✓	✓			✓			✓	✓	3	Low	Good	California and Oregon	Container	Wet fruit		Its fragrant spring flowering is quite impressive, and is attractive in fall, when the reddish berries are seen amongst the yellow fall foliage. This is a very clean looking tree. It is easily maintained below 25' in height.	
✓	✓	✓		✓			✓		3	Moderate	Good	Oregon	Bareroot	Dry fruit	Susceptible to chlorosis, powdery mildew and sooty mold.		
✓	✓	✓		✓	✓	✓	✓	✓	3	Moderate	Good	California	Container	Dry fruit	Resistant to Texas root rot and verticillium. Susceptible to beetle borers and thrips, oak root rot, phytophthora and root rot.	Red flowering gum is very desirable as a flowering accent tree, with its profusion of bright flower clusters in late summer, and sporadically throughout the year. Has fragrant leaves.	
✓				✓	✓			✓	2	Low	Poor			Wet fruit	Resistant to verticillium. Susceptible to aphids, beetle borers, scales and spider mites, fire blight, oak root rot, powdery mildew, root rot, rust and sooty mold.	Branches with thorns. The foliage is reddish purple when unfolding, changing to lustrous dark green at maturity and turning to orange, scarlet and purple in autumn. The white flower clusters in early June are effective for 7 to 10 days. The fruit persists all winter.	
✓	✓			✓	✓	✓	✓		3	Moderate	Good	California	Container	Dry fruit	Resistant to Texas root rot. Susceptible to spider mites, gummosis, phytophthora and root rot.		
✓				✓	✓	✓	✓		4	Moderate	Good	Oregon	Container and B&B	Dry fruit	Resistant to verticillium. Susceptible to aphids and spider mites, canker, oak root rot, phytophthora, root rot and sooty mold.	Limit plantings to wide medians.	
✓	✓	✓		✓			✓	✓	3	Moderate	Good	California and Oregon	Bareroot and container		Resistant to oak root fungus. Susceptible to anthracnose.	Ginkgo is a smog tolerant and hardy tree. Not to be planted in East end of city due to large existing Ginkgo population. 'Fairmont' is faster growing than other Ginkgo varieties.	
✓	✓			✓			✓	✓	4	Moderate	Good	California and Oregon	Bareroot and container		Resistant to oak root fungus. Susceptible to anthracnose.	Ginkgo is a smog tolerant and hardy tree. Not to be planted in East end of city due to large existing Ginkgo population.	
✓	✓			✓			✓	✓	4	Moderate	Good	California and Oregon	Bareroot and container		Resistant to oak root fungus. Susceptible to anthracnose.	Ginkgo is a smog tolerant and hardy tree. Not to be planted in East end of city due to large existing Ginkgo population.	

		Disease/Insects	Fall Color	Flower Color	Flower Timing	Fruit	Fruiting Period	Shape	Crown Size Per Year (once established)	Height at Maturity (feet)	Spread at Maturity (feet)	Trunk Diameter at Breast Height at Maturity (inches)	Longevity (years)
<i>Ginkgo biloba</i> 'Princeton Sentry'*	Princeton Sentry Maldenhalr Tree	D	Gold	Inconspicuous	Winter	Fruitless	N/A	Narrow, columnar, erect	12-18"	50	20	25	>100
<i>Ginkgo biloba</i> 'Saratoga'	Saratoga Maldenhalr Tree	D	Gold	Inconspicuous	Winter	Fruitless	N/A	Conical or oval, erect or spreading and covers an extensive area	12-18"	50	30	25	>100
<i>Gymnocladus dioeda</i> 'Espresso'*	Kentucky Coffee Tree	D	Gold	Inconspicuous	Summer	Fruitless	N/A	Oval to vase shaped with upright arching branches	24-36"	50	35	30	50-100
<i>Jacaranda mimosifolia</i>	Jacaranda	E	N/A	Showy blue or lavender	Spring, Summer or Fall	Brown capsule, 1.5-3"	Summer or Fall	Oval, rounded, umbrella or vase, spreading with a high canopy	24"	40	60	25	<50-100
<i>Koeleruteria bipinnata</i>	Chinese Flame Tree	D	Bronze or gold	Yellow	Summer or Fall	Prolific red-pink capsules, 1.5- 2"	Fall	Rounded, umbrella or vase	18-24"	35	35	20	50-100
<i>Lagerstromia</i> x 'Natchez' <i>Lagerstromia</i> x 'Tuscarora'	Hybrid Crape Myrtle	D	Red, gold, orange or multicolor	'Natchez' has white flowers. 'Tuscarora' has pink flowers.	Summer	Brown capsule, 0.25-0.5"	Fall	Oval, rounded, umbrella or vase, erect or spreading with a low canopy	12-24"	25	15	15	50-100
<i>Laurus nobilis</i> 'Saratoga'	Sweet Bay	E	N/A	Yellow-green	Spring	Black berry, 0.5"	Summer	Conical or oval	12-24"	35	20	25	50-150
<i>Livistona australis</i> *	Australia Palm	E	N/A	Cream	Spring	Black or brown drupe, 0.5-1.5"	Summer or Fall	Fan palm, erect with a high canopy	12"	50	30	20	50-100
<i>Lophostemon confertus</i>	Brisbane Box	E	N/A	Showy, white	Spring	Brown capsule, 0.25-0.5"	Summer	Oval or rounded, erect or spreading and covers and extensive area	24-36"	50	30	25	50-100
<i>Magnolia grandiflora</i> 'Russet' <i>Magnolia grandiflora</i> 'St. Mary'	Southern Magnolia	E	N/A	Showy, fragrant, white	Spring, Summer or Fall	Purple or red follicle, 3" long	Summer or Fall	Oval, rounded or umbrella, erect or spreading	24"	65	60	50	>100
<i>Metrosideros excelsus</i>	New Zealand Christmas Tree	E	N/A	Showy, red	Spring or Summer	Brown capsule, 0.25-0.5"	Summer or Fall	Oval or rounded, erect or spreading with a low canopy	18-24"	35	35	30	50-100
<i>Nyssa sylvatica</i> 'Red Rage'* <i>Nyssa sylvatica</i> 'Forum'*	Sour Gum	D	Red, orange or multicolor	Inconspicuous	Spring	Black drupe, 0.5 1.5"	Fall or Winter	Conical or oval, erect or spreading with a high canopy	12-18"	65	25	30	>100
<i>Persea americana</i> *	Avocado	E	N/A	Showy green	Spring	Medium-large fruits, edible	Fall	Rounded, spreading	12-36"	50	40	15	50-100
<i>Persea borbonia</i> *	Redbay	E	N/A	Inconspicuous	Spring	Persistent, blue, 0.25-0.5"	Fall	Rounded, spreading	12-36"	50	50	20	50-100
<i>Persea Indica</i> *	Avocado	E	N/A	Inconspicuous	Spring	Black, 0.5-1"	Fall	Rounded, spreading	12-36"	30	40	15	50-100

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✓	✓		✓	✓		✓	✓	✓	4	Moderate	Good	California and Oregon	Bareroot and container		Resistant to oak root fungus. Susceptible to anthracnose.	'Princeton Sentry' has fragrant flowers in Spring. Ginkgo is a smog tolerant and hardy tree. Not to be planted in East end of city due to large existing Ginkgo population.
✓	✓		✓	✓		✓	✓	✓	4	Moderate	Good	California and Oregon	Bareroot and container		Resistant to oak root fungus. Susceptible to anthracnose.	Ginkgo is a smog tolerant and hardy tree. Not to be planted in East end of city due to large existing Ginkgo population.
✓	✓		✓	✓	✓	✓		✓	3	Moderate	Good	Oregon	Bareroot		Resistant to oak root fungus.	
✓		✓	✓			✓	✓	✓	3	Low	Good	California	Container	Flower and dry fruit	Resistant to oak root fungus. Susceptible to aphids, phytophthora and root rot.	Well-adapted to Alameda's sandy soils. Place where it will get frequent watering. Neighborhood specific. Reported to have weak branch strength.
✓	✓	✓	✓	✓	✓	✓	✓	✓	4	Moderate	Good	California	Container	Dry fruit	Susceptible to beetle borers and scales.	Becomes a round-headed tree requiring little pruning at maturity, but needs training when young, as it tends to form multiple leaders.
✓	✓		✓	✓	✓	✓	✓	✓	3	Low	Good	California	Container	Flowers, dry fruit	Resistant to powdery mildew. Susceptible to aphids and sooty mold.	'Tuscarora' has multiple stems.
✓	✓	✓	✓	✓	✓	✓	✓	✓	4	Moderate	Good	California	Container	Dry fruit	Susceptible to psyllids and scales, phytophthora and root rot.	Dense canopy of fragrant leaves. Early pruning needed to train a good shape; pruning needed less frequently with age. Requires removal of suckers.
✓	✓		✓	✓	✓	✓	✓	✓	4	Moderate	Poor			Dry fruit	Resistant to Texas root rot. Susceptible to pigeons.	Fan palm with dark, shiny leaves. Needs moderate watering.
✓	✓		✓	✓	✓	✓	✓	✓	3	Low	Good	California	Container	Dry fruit	Susceptible to scales, phytophthora and root rot.	Previously known as <i>Tristanis conferta</i> . Drought resistant once established. Smog tolerant. The red peeling bark and foliage are reminiscent of native <i>Arbutus</i> . Use like a small Eucalyptus tree with few structural problems. Extensive fruit drop from mature trees sometimes causes complaints.
✓	✓		✓	✓		✓	✓	✓	5	High	Good	California	Container	Leaves	Resistant to oak root fungus. Susceptible to aphids, scales and spider mites, root rot and verticillium wilt.	Not to be planted near drain inlets, as leaves may obstruct drainage. Only to be planted in wide planter strips or medians.
✓	✓	✓	✓	✓	✓	✓	✓	✓	4	Moderate	Good	California	Container	Dry fruit	Susceptible to phytophthora and root rot.	Smog tolerant. Leave low trunk twigs to encourage strong structure. Not to be planted in small planter strips.
✓	✓		✓	✓	✓	✓	✓	✓	4	Low	Good	Oregon	B&B and container	Dry fruit	Susceptible to fusarium, phytophthora, root rot, rust and verticillium wilt. Also susceptible to lime-induced chlorosis in alkaline soils.	Should use only suggested varieties to ensure good form and color.
✓	✓	✓	✓	✓	✓	✓	✓	✓	2	Low	Poor			Leaves	Susceptible to phytophthora root rot, mites, scales and leaf spot.	Drainage is a concern with this species. Amending soil with mulch and gypsum may suppress root rot.
✓	✓	✓	✓	✓	✓	✓	✓	✓	5	Low	Poor			Fruit and leaves	Susceptible to borer, scales and sooty mold.	Redbay is a rugged and adaptable plant suitable to many landscape applications. Unfortunately, the wood is reportedly brittle and subject to wind damage. Pruning to keep lateral branches less than half the diameter of the trunk will increase the tree's longevity and help prevent branches from separating from the trunk.
✓		✓		✓		✓			2	Low	Poor			Leaves	Susceptible to phytophthora root rot.	Might be a good substitute for Camphor if fruiting can be limited, perhaps by using Guatemalan varieties, and/or limiting selections to varieties with Type A or Type B flowers. Potential for sidewalk damage needs to be assessed. Seems to thrive in Alameda as a yard tree. Does not do well with high water table and winds. Only to be planted inland. Amending soil with mulch and gypsum may suppress root rot.

		Disturbance/ Vulnerability	Foliage Color	Flower Color	Flowering Period	Fruit	Fruiting Period	Shape	Growth Rate Per Year (once established)	Height at Maturity (feet)	Spread at Maturity (feet)	Trunk Diameter at Breast Height at Maturity (inches)	Longevity (years)
<i>Phoenix canariensis</i>	Canary Island Palm	E	N/A	Yellow	Spring	Orange or yellow drupe, 0.5-1.5"	Fall	Feather palm, erect and covers an extensive area	12"	65	25	35	50-100
<i>Pistachia chinensis</i> 'Keith Davey'	Chinese Pistache	D	Red, orange, gold or multicolor	Inconspicuous	Spring	Prolific red or blue drupe, 0.5"	Summer or Fall	Oval, rounded or umbrella, erect or spreading with a high canopy	12-18"	65	50	25	>100
<i>Platanus acerifolia</i> 'Bloodgood'** <i>Platanus acerifolia</i> 'Columbia'** <i>Platanus acerifolia</i> 'Yarwood**'	London Planetree	D	Bronze or gold	Inconspicuous	Spring or Winter	Brown seed balls, 0.5-1.5"	Summer	Oval, rounded or umbrella, erect or spreading and covers an extensive area	36"	70	50	35	>100
<i>Podocarpus gradilior</i>	Fern Pine	E	N/A	Inconspicuous	Spring	Purple drupe, 0.25-0.5"	Fall	Oval or rounded, erect and covers an extensive area	12-24"	50	35	30	>100
<i>Prunus sargentii</i> 'Columnaris'	Columnar Sargent Cherry	D	Red, gold or bronze	Showy plnk	Spring	Purple, red or black drupe, 0.25-0.5"	Fall, Winter or Summer	Columnar or vase, erect	12-36"	35	20	20	40
<i>Prunus yedoensis</i> *	Yoshino Flowering Cherry	D	Bronze or gold	Showy, fragrant pink or white	Spring or Winter	Black drupe, 0.25-0.5"	Winter or Summer	Oval, rounded or umbrella, erect or spreading with a low canopy	36"	35	30	20	<50-100
<i>Pyrus calleryana</i> 'Aristocrat' <i>Pyrus calleryana</i> 'Chanticleer'	Callery Pear	D	Red, gold, purple or multicolor	Showy, fragrant, white	Spring	Brown pome, 0.25-0.5"	Summer	Oval or rounded, erect or spreading, low or high canopy	24"	35-50	45	20	50-100
<i>Quercus coccoloba</i> **	Scarlet Oak	D	Red	Inconspicuous	Spring	Acorns, 0.5-1.5"	Fall or Winter	Oval, rounded or umbrella, erect or spreading and covers an extensive area	24"	60	60	40	>100
<i>Quercus falcata</i> ** **	Southern Red Oak	D	Bronze	Inconspicuous	Spring	Acorns	Fall	Oval or rounded	24"	65	60	40	>100
<i>Quercus palustris</i> *	Pin Oak	D	Bronze, red gold or multicolor	Inconspicuous	Spring	Acorns, 0.5-1.5"	Fall or Winter	Conical, rounded	24"	65	35	30	>100
<i>Quercus shumardii</i> **	Shumard Oak	D	Red, gold, orange or multicolor	Inconspicuous	Spring	Acorns, 0.5-1.5"	Fall	Oval, rounded or umbrella, erect or spreading and covers an extensive area	24-36"	65	45	30	>100
<i>Quercus suber</i>	Cork Oak	E	N/A	Inconspicuous	Spring	Prolific acorns, 0.5-1.5"	Fall or Winter	Oval, rounded or umbrella, erect or spreading and covers an extensive area	24"	70	45	50	>100
<i>Quercus virginiana</i> *	Southern Live Oak	E	N/A	Inconspicuous	Spring	Acorn, 0.5-1.5"	Fall or Winter	Oval, rounded or umbrella, erect or spreading with a high canopy	24-36"	60	60	50	>100

\* trees to be considered on an experimental basis, as they have yet to be proven as successful street trees in Alameda (see discussion in sec. 3.2)

\*\* minimum planter width may be less if tree is located within area marked in Appendix 13



		Deciduous/Evergreen	Foliage Color	Flower Color	Flower Period	Fruit	Fruiting Period	Shape	Growth Rate Per Year (once established)	Height at Maturity (feet)	Spread at Maturity (feet)	Trunk Diameter at Breast Height at Maturity (inches)	Longevity (years)
<i>Rhus lancea</i> *	African Sumac	E	N/A	Inconspicuous	Summer	Red or yellow drupe, 0.25-0.5"	Fall	Rounded or umbrella, spreading or weeping with a low canopy	24"	25	25	30	50-100
<i>Taxodium distichum</i> *	Bald Cypress	D	Bronze or orange	Inconspicuous	Summer or Fall	Fragrant, Brown cone, 0.5-1.5"	Summer or Fall	Conical, erect or spreading and covers an extensive area	24-36"	65	40	35	50-100
<i>Taxodium mucronatum</i> *	Montezuma Cypress	E	N/A	Inconspicuous	Summer or Fall	Fragrant, Brown cone, 0.5-1.5"	Summer or Fall	Conical, erect or weeping and covers an extensive area	36"	65	50	50	50-100
<i>Tilia tomentosa</i> 'Green Mountain' <i>Tilia tomentosa</i> 'Sterling'	Silver Linden	D	Gold	Showy, fragrant, yellow or white	Summer	Gray capsule, 0.25-0.5"	Fall	Conical, oval or umbrella, erect or spreading with high canopy and extensive area	18-48"	50	40	25	50-100
<i>Tristania laurina</i> 'Elegans'	Swamp Myrtle	E	N/A	Showy, yellow	Spring or Summer	Brown capsule, 0.25-0.5"	Summer or Fall	Oval or rounded, erect or spreading with a low canopy	12"	25	20	15	<50-100
<i>Ulmus americana</i> 'Jefferson'*** <i>Ulmus americana</i> 'New Harmony'*** <i>Ulmus americana</i> 'Princeton'** <i>Ulmus americana</i> 'Valley Forge'***	American Elm cultivars	D	Yellow	Inconspicuous	Spring	Green, wafer-like seedpods, 0.25-0.5"	Spring	Upright or spreading, vase shape	36"	70	60	80	>100
<i>Ulmus</i> 'Frontier'	Frontier Elm	D	Burgundy	Inconspicuous	Spring	Green, wafer-like seedpods, 0.25-0.5"	Spring	Broadly oval	36"	40	30	25	unknown
<i>Ulmus</i> 'Morton'	Accolade Elm	D	Yellow	Inconspicuous	Spring	Green, wafer-like seedpods, 0.25-0.5"	Spring	Upright, vase-shaped with arching limbs	36"	70	60	unknown	unknown
<i>Ulmus</i> 'Morton Glossy'	Triumph Elm	D	Yellow	Inconspicuous	Spring	Green, wafer-like seedpods, 0.25-0.5"	Spring	Upright oval to vase	36"	55	45	unknown	unknown
<i>Ulmus</i> 'Morton Stalwart'	Commendation Elm	D	Yellow	Inconspicuous	Spring	Green, wafer-like seedpods, 0.25-0.5"	Spring	Upright oval	36"	60	50	unknown	unknown
<i>Ulmus</i> 'Patriot'	Patriot Elm	D	Yellow	Inconspicuous	Spring	Green, wafer-like seedpods, 0.25-0.5"	Spring	Stiffly upright, narrow vase shape	36"	50	40	unknown	unknown
<i>Washingtonia robusta</i>	Mexican Fan Palm	E	N/A	Inconspicuous	Summer	Edible black drup, 0.25-0.5"	Fall or Winter	Fan palm, erect and covers an extensive area	18-24"	>65	15	20	50-100

\* trees to be considered on an experimental basis, as they have yet to be proven as successful street trees in Alameda (see discussion in sec. 3.2)  
 \*\* minimum planter width may be less if tree is located within area marked in Appendix 13

Tolerates Full Sun	Tolerates Shade	Requires Good Drainage	Tolerates Poor Drainage	Tolerates Moist Soil	Drought Tolerant	Tolerates Sprinklers	Seaside Tolerance	Tolerates Alkaline Soil	Minimum Planter Width (feet)	Handicap Damage Potential	Nursery Availability	Nursery Origin	Stock Type			
✓	✓			✓	✓	✓	✓	✓	4	Low	Good	California	Container	Dry fruit	Susceptible to root rot and verticillium wilt.	A dense shade tree, rather graceful with its arching branches and weeping foliage. It is tough and reliable in dry conditions, though it looks best with regular deep watering. It may require regularly scheduled light pruning (but not topping) of vigorous top shoots to maintain its height below 25 feet.
✓	✓		✓	✓		✓	✓	✓	4	Moderate	Good	Oregon	Bareroot and container	Dry fruit	Resistant to oak root fungus. Susceptible to beetle borers and beetle leaves, phytophthora and root rot.	Plant only in wide medians.
✓	✓			✓	✓			✓	5	Moderate	Poor			Dry fruit	Susceptible to beetle borers and beetle leaves.	Fairly drought tolerant, but needs ample water when young. Plant only in wide medians.
✓	✓	✓		✓	✓	✓	✓	✓	3	Low	Good	Oregon	Bareroot and container	Dry fruit	Susceptible to root rot, sooty mold and verticillium wilt.	Light green leaves with silver undersides move in any breeze. Faster growing than most Lindens, with good yellow fall color in Alameda. Unlike other Lindens, does not appear subject to aphids.
✓	✓			✓				✓	2	Low	Good	California	Container	Dry fruit and flowers	Susceptible to scales.	It is useful where only small planter spaces are available. Easily pruned to any form.
✓	✓		✓	✓	✓	✓	✓	✓	6	High	Good	Oregon	Bareroot	Dry seeds	Resistant to Dutch elm disease and elm leaf beetle.	
✓	✓			✓		✓		✓	3	Low	Good	California and Oregon	Bareroot and container	Dry seeds	Resistant to Dutch elm disease and elm yellows.	This is a hybrid between <i>U. carpinifolia</i> and <i>U. parvifolia</i> .
✓	✓			✓	✓	✓	✓	✓	6	Moderate	Good	Oregon	Bareroot and container	Dry seeds	Resistant to elm yellows, elm leaf beetle, elm leaf miner and Dutch elm disease.	This is a hybrid between <i>U. japonica</i> and <i>U. wilsoniana</i> .
✓	✓			✓		✓		✓	4	Moderate	Good	Oregon	Bareroot	Dry seeds	Resistant to Dutch elm disease.	This is a hybrid between <i>U. wilsoniana</i> , <i>U. japonica</i> and <i>U. pumila</i> .
✓	✓			✓		✓		✓	5	Moderate	Good	Oregon	Bareroot	Dry seeds	Resistant to Dutch elm disease.	This is a hybrid between <i>U. wilsoniana</i> , <i>U. pumila</i> and <i>U. carpinifolia</i> .
✓	✓			✓		✓		✓	4	Moderate	Good	Oregon	Bareroot	Dry seeds	Resistant to Dutch elm disease.	This is a hybrid between <i>U. wilsoniana</i> , <i>U. carpinifolia</i> , <i>U. glabra</i> and <i>U. pumila</i> .
✓	✓	✓		✓	✓	✓	✓	✓	3	Low	Good	California	Container	Dry fruit and leaves	Resistant to Texas root rot. Susceptible to beetle borers and pigeons.	A moderately invasive species. Use for special situations, such as on Burbank Street and to preserve views on Shoreline Drive. Planting at each of these locations should be at the same time to establish uniformity.