

APPENDIX A: SUPPLEMENTAL LANDSCAPING REQUIREMENTS

Section 1: Landscaping Plan Requirements

Landscaping plans required in accordance with Section 5.3.D, Landscaping Plan, shall include the following minimum information, together with any additional information the Planning Director may require in order to determine compliance with the standards in Section 5.3, Landscaping and Buffer Standards:

- Show all buildings, walkways, vehicular use areas, utility areas, stormwater retention/detention areas, sight triangles, and miscellaneous site structures (Minimum scale of 1" = 40').
- Show current zoning and land use of all adjacent property.
- Show location, name, and size of all existing Specimen Trees, as defined in Section 5.3.J(3).
- Planting areas drawn to scale with a list of the botanical and common names, and size of all plants designated for each area.
- Location, name, and size of all existing trees, shrubs, groundcover, and other plant materials that are to be incorporated as a part of the landscape plan.
- Location and width of landscaped buffer strips, including height of berms.
- All landscape plans shall include a summary tabulation of all landscape requirements.
- Show all existing and proposed paved surfaces, curbs, steps, and grade changes.
- Location and sizes of any irrigation facilities used to maintain planting areas.
- Location of any overhead powerlines or easements on the property.

Section 2: Acceptable Plant Species

The following list of trees and shrubs represent the acceptable plant species that may be used to comply with this Ordinance. Other species may be allowed with staff approval.

Table A-2: Acceptable Plant Species

COMMON NAME	SCIENTIFIC NAME	SHADE TOLERANT	TOLERATES POOR DRAINAGE	NATIVE	BLOOMING	FOLIAGE (DECIDUOUS, SEMI-DECIDUOUS, OR EVERGREEN)	PLACEHOLDER
TREES – LARGE MATURING (50' + H)							
Arborvitae, 'Green Giant'	Thuja 'Green Giant'		x			E	
Ash, Green	Fraxinus pennsylvanica	x		x		D	
Ash, White	Fraxinus americana			x		D	

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COMMON NAME	SCIENTIFIC NAME						
Baldcypress	Taxodium distichum		x	x		D	
Beech, American	Fagus grandiflora			x		D	
Birch, River	Betula nigra	x	x	x		D	
Black Gum	Nyssa sylvatica			x		D	
Cedar, Deodar	Cedrus deodara					E	
Cedar, Eastern Red	Juniperus virginiana			x		E	
Cryptomeria, Japanese	Cryptomeria japonica		x			E	
Dawn Redwood	Metasequoia glyptostroboides					S	
Elm, Princeton	Ulmus americana 'Princeton'					D	
Elm, Lacebark	Ulmus parvifolia	x	x			D	
Ginkgo	Ginkgo biloba	x	x			D	
Hackberry, Common	Celtis occidentalis	x	x	x		D	
Hackberry, Sugar	Celtis laevigata	x	x	x		D	
Hemlock, Eastern	Tsuga canadensis	x		x		E	
Hickory, Bitternut	Carya cordiformis			x		D	
Hickory, Pignut	Carya glabra			x		E	
Hickory, Shagbark	Carya ovata			x		E	
Holly, American	Ilex opaca	x		x		E	
Honeylocust, Shademaster	Gleditsia tricanthos inermis 'Shademaster'			x		D	
Hornbeam, European	Carpinus betulus	x	x			D	
Kentucky Coffeetree	Gymnocladus dioicus	x		x		D	
Linden, Little Leaf	Tilia cordata	x	x		x	D	
Magnolia, Cucumber	Magnolia acuminata			x	x	D	
Magnolia, Southern	Magnolia grandiflora		x	x	x	E	
Maple, Freeman	Acer x fremanii	x		x		D	
Maple, Red	Acer rubrum	x	x	x		D	
Maple, Sugar	Acer saccharum	x		x		D	
Oak, Black	Quercus velutina	x		x		D	
Oak, Fastigiante English	Quercus robur 'Fastigiata'					D	
Oak, Laurel	Quercus laurifolia	x		x		D	

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COMMON NAME	SCIENTIFIC NAME						
Oak, Live	<i>Quercus virginiana</i>	x	x	x		E	
Oak, Northern Red	<i>Quercus rubra</i>	x		x		D	
Oak, Nuttall	<i>Quercus nuttallii</i>	x		x		D	
Oak, Overcup	<i>Quercus lyrata</i>	x	x	x		D	
Oak, Scarlet	<i>Quercus coccinea</i>			x		D	
Oak, Shumard	<i>Quercus shumardii</i>	x		x		D	
Oak, Southern Red	<i>Quercus falcata</i>	x		x		D	
Oak, Swamp White	<i>Quercus bicolor</i>	x	x	x		D	
Oak, Water	<i>Quercus nigra</i>		x	x		D	
Oak, White	<i>Quercus alba</i>	x		x		D	
Oak, Willow	<i>Quercus phellos</i>	x	x	x		D	
Pecan	<i>Carya illinoensis</i>			x		D	
Persimmon	<i>Diospyros virginiana</i>	x		x		D	
Pine, Austrian	<i>Pinus nigra</i>		x			E	
Pine, Japanese Black	<i>Pinus thunbergi</i>					E	
Pine, Loblolly	<i>Pinus taeda</i>		x	x		E	
Pine, Shortleaf	<i>Pinus echinata</i>			x		E	
Pine, Virginia	<i>Pinus virginiana</i>			x		E	
Poplar, Tulip	<i>Liriodendron tulipifera</i>	x	x	x	x	D	
Sweetgum, Fruitless	<i>Liquidambar stickful</i> 'Rotundiloba'	x	x	x		D	
Sweetgum, Slender	<i>Liquidambar styraciflua</i> 'Slender Silhouette'	x	x	x		D	
Zelkova, Japanese	<i>Zelkova serrata</i>	x				D	
Trees – Medium Maturing (30' – 50'H)							
Arborvitae, American	<i>Thuja occidentalis</i>		x	x		E	
Carolina Silverbell	<i>Halesia carolina</i>	x		x	x	D	
Chinese Pistache	<i>Pistacia chinensis</i>	x	x			D	
Crape Myrtle (Biloxi, Natchez)	<i>Lagerstroemia</i>					D	
Dogwood, Flowering	<i>Cornus florida</i>	x		x	x	D	
Dogwood, Kousa	<i>Cornus kousa</i>	x		x	x	D	
Fringetree, Chinese	<i>Chionanthus retusus</i>	x			x	D	

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COMMON NAME	SCIENTIFIC NAME						
Golden Raintree	Koelreuteria paniculata				x	D	
Hawthorne, Green	Crataegus viridis 'Winter King'		x	x	x	D	
Holly, 'Emily Brunner'	Ilex X 'Emily Brunner'	x				E	
Holly, 'Nellie R. Stevens'	Ilex X 'Nellie R. Stevens'	x				E	
Holly, Savannah	Ilex X attenuata 'Savannah'		x	x		E	
Hornbeam, American	Carpinus caroliniana	x	x	x		D	
Maple, Hedge	Acer campestre		x			D	
Maple, Paperbark	Acer griseum					D	
Maple, Trident	Acer buergeranum	x				D	
Redbud, Chinese	Cercis chinensis	x			x	D	
Sourwood	Oxydendrum arboreum	x		x	x	D	
Trees – Small Maturing (Up to 25'H)							
Arborvitae, Emerald Green	Thuja occidentalis 'Emerald Green'					E	
Buckeye, Bottlebrush	Aesculus parviflora	x		x	x	D	
Camellia, Sasanqua	Camellia sasanqua	x			x	E	
Cherry, Kwanzan	Prunus serrulata 'Kwanzan'				x	D	
Cherry, Snowgoose	Prunus serrulata 'Snowgoose'				x	D	
Cherry, 'Okame'	Prunus X 'Okame'				x	D	
Cherry, Weeping	Prunus subhirtella pendula				x	D	
Cherry, Yoshino	Prunus X yedoensis				x	D	
Cherry laurel, Carolina	Prunus caroliniana	x	x	x	x	E	
Crabapple, Japanese Flowering	Malus floribunda				x	D	
Crape Myrtle	Lagerstroemia					D	
Dogwood, redbud	Cornus sericea f. baileyi		x	x	x	D	
Dogwood, Rutger's Hybrid	Cornus kousa X florida	x	x		x	D	
Filbert, American	Corylus americana	x		x		D	

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COMMON NAME	SCIENTIFIC NAME						
Fringetree	<i>Chionanthus virginiana</i>		x	x	x	D	
Hawthorne, Washington	<i>Crataegus phaenopyrum</i>		x	x	x	D	
Holly, Foster	<i>Ilex X attenuata 'Fosteri'</i>		x	x		E	
Holly, Yaupon	<i>Ilex vomitoria</i>	x		x		E	
Magnolia, Star	<i>Magnolia stellata</i>		x	x	x	D	
Magnolia, Lily Flowered	<i>Magnolia liliiflora</i>	x			x	D	
Magnolia, 'Little Gem'	<i>Magnolia grandiflora 'Little Gem'</i>		x	x	x	E	
Magnolia, 'Merrill'	<i>Magnolia X loebneri 'Merrill'</i>		x	x	x	D	
Magnolia, Saucer	<i>Magnolia X soulangiana</i>		x	x	x	D	
Maple, Armur 'Flame'	<i>Acer tataricum ginnala 'Flame'</i>		x			D	
Maple, Japanese	<i>Acer palmatum</i>	x				D	
Maple, Purplebow/Shantung	<i>Acer truncatum</i>					D	
Plum, Purpleleaf	<i>Prunus cerasifera 'Atropurpurea'</i>				x	D	
Redbud, Eastern	<i>Cercis canadensis</i>	x	x	x	x	D	
Serviceberry	<i>Amelanchier arborea</i>			x	x	D	
Waxmyrtle	<i>Myrica cerifera</i>	x		x	x	D	
SHRUBS							
Burford holly	<i>Ilex cornuta burfordi</i>	x				E	
Camellia	<i>Camellia japonica</i>	x			x	E	
Convex Japanese holly	<i>Ilex crenata 'convexa'</i>	x				E	
Dwarf burford holly	<i>Ilex cornuta burfordi nana</i>	x				E	
Emily brunner holly	<i>Ilex "Emily Brunner"</i>	x				E	
English holly	<i>Ilex aquifolium</i>	x				E	
Evergreen euonymus	<i>Euonymus japonicus</i>	x				E	
Flowering quince	<i>Chaenomeles speciosa</i>				x	D	
Forsythia	<i>Forsythia intermedia</i>	x			x	D	
Glenn dale azalea	<i>Azalea hybrida</i>	x			x	S	
Glossy abelia	<i>Abelia grandiflora</i>	x			x	S	

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COMMON NAME	SCIENTIFIC NAME						
Hetzi Japanese holly	<i>Ilex crenata</i> 'hetzi'	x				E	
Hetzi jumper	<i>Jumperus chinensis</i> hetzi					E	
Indian azalea	<i>Azalea indica</i>	x				S	
Inkberry holly	<i>Ilex glabra</i>	x	x	x		E	
Japanese aucuba	<i>Aucuba japonica</i>	x				E	
Kaempferi azalea	<i>Azalea obtusum</i> Kaempferi	x				D	
Laurel	<i>Laurus nobilis</i>	x				E	
Loropetalum	<i>Loropetalum chinense</i>	x				E	
Lusterleaf holly	<i>Ilex latifolia</i>	x				E	
Oakleaf hydrangea	<i>Hydrangea quercifolia</i>	x		x	x	D	
Perny holly	<i>Ilex pernyi</i>	x				E	
Pfitzer juniper	<i>Juniperus chinensis</i> pfitzeriana	x				E	
Roundleaf Japanese holly	<i>Ilex crenata</i> 'rotundifolia'	x				E	
Sasanqua Camellia	<i>Camellia sasanqua</i>	x				E	
Witch-hazel	<i>Hammamelis virginiana</i>	x		x	x	D	
Yaupon holly	<i>Ilex vomitoria</i>	x	x	x		E	
Wax myrtle	<i>Myrica cerifera</i>	x	x	x		E	
Wild olive	<i>Osmanthus americana</i>	x		x		E	
Chinese photinia	<i>Photinia serrulata</i>	x			x	E	
Mountain andromeda	<i>Pieris floribunda</i>	x		x	x	E	
Japanese andromeda	<i>Pieris japonica</i>	x			x	E	
Pittosporum	<i>Pittosporum tobira</i>	x			x	E	
English laurel	<i>Prunus laurocerasus</i>	x			x	E	
Podocarpus	<i>Podocarpus macrophyllus</i> maki	x				E	
Narrow leafed English laurel	<i>Prunus laurocerasus</i> angustifolia	x			x	E	
Scarlet firethorn	<i>Pyracantha coccinea</i>	x			x	E	
Yeddo-hawthorn	<i>Raphiolepis umbellata</i>	x			x	E	
Reeves spirea	<i>Spirea cantoniensis</i>				x	D	
Thunberg spirea	<i>Spirea thunbergii</i>				x	D	

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Bridalwreath spirea	Spirea prunifolia plena				x	D	
Vanhoutte spirea	Spirea vanhouttei				x	D	
Japanese yew	Taxus cuspidata					E	
Leatherleaf viburnum	Viburnum rhytidophyllum	x			x	E	
Laurestinus viburnum	Viburnum tinus	x			x	E	

Section 3: Invasive Plant Pest Species

Table A-3: Invasive Plant Species

COMMON NAME	SCIENTIFIC NAME
TREES	
Bradford Pear	Pyrus Calleryana 'Bradford'
Mimosa	Albizia Julibrissin
Princess Tree	Paulownia Tomentosa
Tree-of-Heaven	Ailanthus Altissima
SHRUBS	
Autumn Olive	Elaeagnus Umbellata
Multiflora Rose	Rosa Multiflora
Nandina, Heavenly Bamboo, Sacred Bamboo	Nandina Domestica
Privet, Chinese	Ligustrum Sinense
Rose-of-Sharon, Shrub Althea	Hibiscus Syriacus
GRASS AND FORBS	
Bamboo	Bambusa spp., Phyllostachys spp., Pseudosasa spp.
Chinese Lespedeza	Lespedeza Cuneata, Sericea Lespedeza
Common Reed	Phragmites Australis
Gill-Over-Ground, Ground Ivy	Glechoma Hederacea
Japanese Knotweed	Polygonum Cuspidatum
Japanese Stiltgrass, Nepalese Browntop	Microstegium Vimineum
Johnsongrass	Sorghum Halepense

Table A-3: Invasive Plant Species

COMMON NAME	SCIENTIFIC NAME
Wild Garlic, Crow Garlic	Allium Vineale
VINES	
Air Potato, Chinese Yam, Cinnamon Vine	Dioscorea Oppositifolia
English Ivy	Hedera Helix
Japanese Honeysuckle	Lonicera Japonica
Kudzu	Pueraria Montana
Morning-flory, Common	Ipomoea Purpurea
Periwinkle	Vinca Minor / Vinca Major
Porcelainberry	Ampelopsis Breuipedunculata
Wisteria, Chinese and Japanese	Wisteria Sinensis / Wisteria Floribunda

Section 4: Preferred Native Plant Species

Table A-4 below, identifies preferred native plant species for use in landscaping.

Table A-4: Preferred Native Plan Species

PLANT NAME	PLANT DESCRIPTION/INFORMATION
CANOPY TREES	
Tulip poplar (Liriodendron tulipifera)	Produces numerous seeds that are foraged upon by birds in the winter. It produces large yellow-orange and greenish flowers in the late spring that may be visited by hummingbirds. Unless you look up, though, you'll never notice them. This species tends to drop a lot of smallish twigs but grows quickly, is long-lived, and has few health issues.
Oaks (Quercus spp.)	Produce acorns which are an important food source for squirrels, chipmunks, deer, and wild turkeys. More than 500 species of butterflies and moths are known to use oaks as their larval food source. We have many species of oaks native to our area. Here are a few favorites: Bur oak (Quercus macrocarpa) produces large acorns with massive, fringed caps. It is a slow grower. Water oak (Quercus nigra) grows quickly and holds onto its tardily deciduous green leaves well into the winter. Northern red oak (Quercus rubra) and Schumard's oak (Quercus schumardii) are both fast growers that produce nice, red color in the fall.
Wild black cherry (Prunus serotina)	Leaves are food for almost 300 species of butterfly and moth larvae, their nectary flowers are magnets for many flying insects, and their fruits are a delicious treat for birds. This tree grows quickly and is very drought-tolerant.
UNDERSTORY TREES	
Dogwood (Cornus florida)	Produces clusters of greenish-white flowers in the spring. By late summer, the trees are covered with bright red berries that are an important food source for birds and squirrels. The leaf color change is quite early in the fall, producing shades of red and purple. The tree is slow-growing, maxing out around 20-25'. The tree shape is somewhat rounded or even

Table A-4: Preferred Native Plan Species

PLANT NAME	PLANT DESCRIPTION/INFORMATION
	parasol-shaped. The roots tend to be shallow, so avoid spraying herbicides on the ground underneath.
Redbud (<i>Cercis canadensis</i>)	Flowers line the branches with pinkish-purple in the spring, providing a nectar source for bees and butterflies. The seeds are eaten by some birds, mice, and squirrels. This tree grows at a moderate rate to about 20' tall and its branches may spread just as wide.
Sourwood (<i>Oxydendrum arboreum</i>)	Produces catkins of small, white, bell-shaped flowers in the summer but really shows its stuff in the fall when its leaves begin to turn pinkish before turning a beautiful crimson color. This species may get 20-30' tall, and maintains a relatively slender silhouette.
SHRUBS (BEST FOR DRY SHADY AREAS)	
Oak-leaf hydrangea (<i>Hydrangea quercifolia</i>)	Can get to be about 8' x 8', but there is a smaller cultivar called 'PeeWee' which stays around 4-5'. The large leaves are joined in the summer by big poofy clusters of white, aromatic flowers that provide food for tiny pollinators. The leaves turn a beautiful red in the fall and remain on the plant throughout the fall.
Sweetshrub (<i>Calycanthus floridus</i>)	Will max out between 6-10' tall. The maroon flowers in the late spring develop into interesting dangling seed capsules. It is a very hardy plant.
Wax myrtle (<i>Myrica cerifera</i> or <i>Morella cerifera</i>)	An evergreen shrub with light green leaves frequently used for screening. It typically gets to be 10-12' tall. Birds love the shelter and tiny berries it provides.
SHRUBS (BEST FOR MOIST SHADY AREAS)	
Bottlebrush buckeye (<i>Aesculus parviflora</i>)	A loosely branching shrub that can get to be about 8' x 10', but it is a slow grower. It produces spikes of white, nectar-luscious flowers in the summer.
SHRUBS (BEST FOR DRY SUNNY AREAS)	
Golden St. John's wort (<i>Hypericum frondosum</i>)	Loved for its abundant yellow flowers all summer. The leaves are turn darker and sometimes purplish in the fall-winter, but typically only fall off if the winter is severe. It will get to be 4-6' tall and wide.
Wax myrtle (<i>Myrica cerifera</i> or <i>Morella cerifera</i>)	An evergreen shrub with light green leaves frequently used for screening. It typically gets to be 10-12' tall. Birds love the shelter and tiny berries it provides.
SHRUBS (BEST FOR MOIST SUNNY AREAS)	
Fothergilla 'Mt. Airy'	A dwarf hybrid of two species, this plant produces poofs of white flowers in the spring and then is magnificent again in the fall when its leaves turn gorgeous shades of red and orange. It will get to be about 3-5' tall and wide. While it does well in moist areas, it can do just fine in average soils and seems to be fairly drought-tolerant, as well.
Summersweet (<i>Clethra alnifolia</i>)	Produces white flowers in mid-summer that attract tons of pollinators! It has attractive, dark green foliage and will get to be about 6' tall and wide, although dwarf varieties are available.
Winterberry (<i>Ilex verticillata</i>)	A deciduous holly. It will lose its leaves after they turn yellow in the fall, but the females (if they've been pollinated by a male) will retain tons of bright red berries well into the winter. There are varieties that will mature to different sizes.
Elderberry (<i>Sambucus canadensis</i>)	Produces white flowers in the summer that will turn into purple berries relished by birds. It will form a loose thicket, if allowed, around 10' tall. It is a favorite of many birds, for both the habitat and the food.

Table A-4: Preferred Native Plan Species

PLANT NAME	PLANT DESCRIPTION/INFORMATION
SHRUBS (HARDY, NOT PICKY ABOUT HABITAT REQUIREMENTS)	
Beautyberry (<i>Callicarpa americana</i>)	A loose rounded shrub of about 5' in size. It has small pinkish berries for pollinators in summer, followed by bright magenta berries for the birds in the fall. In the driest part of the summer, it would appreciate a bit of a drink.
Indigo bush (<i>Amorpha fruticosa</i>)	A loosely branching shrub that produces spikes of purple flowers tinged with bright orange pollen which the bees love. It may get to be about 8-10' tall, and will form a loose colony if allowed.
Inkberry holly (<i>Ilex glabra</i>)	A compact evergreen shrub with small, dark green leaves. As with all hollies, each individual plant is either male or female. Females will produce black berries, but only if there is a male around to pollinate them. It will get to be about 5' tall. In a dry summer, it would appreciate a bit of a drink.
PERENNIALS (BEST FOR MOIST SHADY AREAS)	
Foamflower (<i>Tiarella cordifolia</i>)	Gets to be about 6-8" tall and sends up stalks of white flowers another foot or so in the spring.
Bleeding hearts (<i>Dicentra eximia</i>)	Has delicate, dark, evergreen leaves and produces cute little heart-shaped, pink flowers in the spring. May not be liked by raccoons.
Virginia bluebells (<i>Mertensia virginica</i>)	Come up in the spring with large, lettuce-like leaves and produce beautiful curved stalks of bell-shaped flowers that range from pink to blue to purple. A wonderful spring wildflower for moist areas.
PERENNIALS (BEST FOR DRY SHADY AREAS)	
Christmas fern (<i>Polystichum acrostichoides</i>)	Evergreen and thrives on neglect in dry, shady places.
White wood aster (<i>Eurybia divaricata</i>)	Gets to be about a foot tall and produces white flowers from mid-summer to early fall. It tends to spread a bit.
Common blue violet (<i>Viola sororia</i>)	Sprouts up all over in the dry shady areas of my yard. It is most welcome. Deer and rabbits love it, and it may distract them from some other plants, like phlox. The leaves and flowers are also edible to people; you could add them to your salads!
Green-and-gold (<i>Chrysogonum virginianum</i>)	Has dark, evergreen leaves and makes a nice groundcover. It produces large, bright yellow flowers in the spring and is very drought-tolerant.
Little brown jugs (<i>Hexastylis arifolia</i>)	The name refers to the small jug-shaped flowers of this low-growing evergreen plant. You will only see them if you look under the leaves, but they provide nectar and pollen to beetles and other leaf-litter-inhabiting creatures.
PERENNIALS (BEST FOR DRY SUNNY AREAS)	
Aromatic aster (<i>Symphotrichum oblongifolium</i>)	Puts on a fantastic show with its purple daisy-like flowers in the fall. It will form a mound 1-2' high and 2-3' in diameter, attracting many butterflies.
Butterfly weed (<i>Asclepias tuberosa</i>)	Produces orange flowers in the spring and summer that attract numerous pollinators. It is usually 2-3' tall, dying back to the ground in the winter.
Lance-leaved tickseed (<i>Coreopsis lanceolata</i>) and Thread-leaved coreopsis (<i>Coreopsis verticillata</i>)	Both are available as various cultivars and varieties. They may bloom from late spring through the summer and into the fall, providing pollen and nectar for pollinators. The seeds are then eaten by birds.

Table A-4: Preferred Native Plan Species

PLANT NAME	PLANT DESCRIPTION/INFORMATION
Coneflowers (Echinacea and Rudbeckia spp.)	Are now available as numerous cultivars and varieties, offering many different colors and sizes. Pollinators tend to prefer the more "traditional" flower colors. The seeds will be eaten by many birds.
Creeping phlox (Phlox subulata)	A low-growing, slowly spreading, evergreen plant, There are many different cultivars available producing early spring flowers in white or various shades of pink and purple. Some may bloom again in the fall.
Goldenrods (Solidago spp.)	Produce long plumes of numerous, tiny yellow blossoms in late summer and fall, offering late-season nectar and pollen, and then the seeds are eaten by small birds all winter. These plants may get to be as tall as 8', but there are some dwarf varieties available too.
PERENNIALS (BEST FOR MOIST SUNNY AREAS)	
Cardinal flower (Lobelia cardinalis)	An attractor of hummingbirds and butterflies. It reaches 2-3' tall and produces stalks of bright red flowers from summer into the fall.
Mistflower (Conoclinium coelestinum)	Gets to be 2-3' tall and produces wonderful clouds of small, lavender flowers in the fall.
Swamp sunflower (Helianthus angustifolius)	Waits until the very end of the season to produce its bright yellow flowers. By this time, it could be as tall as 8'. It does tend to spread, but you can easily pull it out if it spreads outside its allowed area.
Red mallow (Hibiscus coccineus)	Produces bright red flowers as large as your hand in the summer atop stems that might get to be 5' tall.
PERENNIALS (NOT PICKY ABOUT LOCATION)	
Blue-eyed grass (Sisyrinchium angustifolium)	Is actually a small iris. The thin, stiff leaves might get to be 6-8" tall. Small, light blue flowers with yellow centers are produced in the spring.
Columbine (Aquilegia canadensis)	Does well in sun or shade. Its bluish leaves have a delicate appearance and are frequently "decorated" by leaf miners. This plant produces dangling red and yellow flowers loved by hummingbirds, and many people! There are many funky and foreign cultivars of columbine that are not appealing to pollinators, so try to stick with the straight, native species.
Indian pink (Spigella marylandica)	Gets about 2' tall in the spring and produces columnar red flowers with yellow insides that are attractive to hummingbirds.
Joe-Pye weed (Eupatoriadelphus macalatus)	Its relatives may range from 2-6' tall before producing large clusters of lavender flowers in late summer.
NATIVE GRASSES AND SEDGES (TALL – 3' OR TALLER)	
Switchgrass (Panicum virgatum) and Indian grass (Sorghastrum nutans)	put on quite a show in late summer and fall with their very different types of flowering stalks. Let them stand all winter as natural bird feeders.
NATIVE GRASSES AND SEDGES (MEDIUM HEIGHT – 2' TO 4' TALL)	
Wild oats (Chasmanthium latifolium or Uniola latifolia)	Grow well in the shade and have attractive, dangling flower/seedheads that persist into winter.
Splitbeard bluestem (Andropogon ternarius) and Little bluestem	Like dry, sunny places. They both have leaves that are light bluish-green, and turn gentle shades of lavender, blue, and pink in the fall. The flowers and seedheads of splitbeard bluestem are fuzzy, adding extra interest to the winter garden.

Table A-4: Preferred Native Plan Species

PLANT NAME	PLANT DESCRIPTION/INFORMATION
(Schizachyrium scoparius)	
Muhly grass (Muhlenbergia capillaris)	Needs lots of sun and will be happier if it is not in bone-dry clay soil. When in the right spot, it produces amazing clouds of purplish flowering stalks in late summer/fall.
NATIVE GRASSES AND SEDGES (SHORT HEIGHT – LESS THAN 1’ TALL)	
Purple lovegrass (Eragrostis spectabilis)	Produces fine, lacey displays of tiny flowers and seeds in late summer/fall. It does well in dry, sunny areas.
Carex laxiculmis	Has somewhat floppy, bluish leaves that remain all winter. It likes part-shade to shady areas.
Carex plantaginea	Has somewhat stiffer, medium green leaves that remain all winter. It likes part-shade to shady areas.
FLOWERING VINES (CAN BE USED TO SCREEN WALLS OR OTHER STRUCTURES)	
Carolina jessamine (Gelsemium sempervirens)	Is evergreen and produces large, tubular, yellow flowers from late winter into spring, serving as an important food source for pollinators emerging from winter hibernation. It may bloom again in the fall.
Crossvine (Bignonia capreolata)	Produces large, tubular, red flowers from late winter into spring, serving as an important food source for hummingbirds as they migrate north for the summer. It will produce more flowers if it gets more sun, but does fine in the shade, as well. This plant is evergreen, though its leaves typically take on a reddish hue during the winter.
Trumpet honeysuckle (Lonicera sempervirens)	Produces flowers unlike those of non- native, invasive honeysuckles. These are slender, red tubes that are popular among many pollinators, including hummingbirds. It is mostly evergreen, maybe losing some of its leaves in very cold weather. It produces flowers continuously from spring through fall.

Section 5: Commonly-Use Invasive Plants and Native Substitutes

Table A-5 below, identifies invasive plants commonly used that are damaging to the environment and native plants that are excellent alternatives to give back to the environment.

Table A-5: Native Plan Alternatives to Commonly-Use Invasive Plant Species

COMMONLY-USED INVASIVE SPECIES	RECOMMENDED ALTERNATIVE NATIVE PLANT SPECIES
GRASSES AND GRASS-LIKE PLANTS	
Bamboo (Bambusa species)	Blue-eyed grass (Sisyrinchium angustifolium)
Chinese silvergrass (Miscanthus sinensis)	Indian grass (Sorghastrum nutans)
Common reedgrass (Phragmites australis)	Oak sedge (Carex pennsylvanicus)
Maidengrass (Miscanthus sinensis)	Purple top (Tridens flavus)
Monkey grass (Liriope species)	Splitbeard bluestem (Andropogon ternarius)
Running bamboo (Phyllostachys species)	Spreading sedge (Carex laxiculmis)
Zebra grass (Miscanthus sinensis)	Switchgrass (Panicum species)
TREES	
Bradford pear (Pyrus calleryana)	Any oak (Quercus species)

Table A-5: Native Plan Alternatives to Commonly-Use Invasive Plant Species

COMMONLY-USED INVASIVE SPECIES	RECOMMENDED ALTERNATIVE NATIVE PLANT SPECIES
Empress tree (<i>Paulownia tomentosa</i>) Mimosa (<i>Albizia julibrissin</i>) Tree of heaven (<i>Ailanthus altissima</i>)	Black cherry (<i>Prunus serotina</i>) Dogwood (<i>Cornus florida</i>) Redbud (<i>Cercis canadensis</i>)
SHRUBS	
Autumn olive (<i>Eleagnus</i> species) Butterfly bush (<i>Buddleja davidii</i>) Chinese privet (<i>Ligustrum</i> species) Chinese holly and its many cultivars such as 'Burford' and 'Nellie Stevens' (<i>Ilex cornuta</i> x.) Japanese barberry (<i>Berberis thunbergii</i>) Japanese holly and its many cultivars (<i>Ilex crenata</i> x.) Japanese privet (<i>Ligustrum</i> species) Largeleaf lantana (<i>Lantana camara</i>) Leatherleaf (<i>Mahonia bealii</i>) Russian olive (<i>Eleagnus</i> species) Sacred bamboo (<i>Nandina domestica</i>)	Beautyberry (<i>Callicarpa americana</i>) Dwarf palmetto (<i>Sabal minor</i>) Florida anise (<i>Illicium floridanum</i>) Golden St. John's wort (<i>Hypericum frondosum</i>) Inkberry holly (<i>Ilex glabra</i>) Leucothoe (<i>Agarista populifolia</i>) Oak-leaf hydrangea (<i>Hydrangea quercifolia</i>) Staghorn sumac (<i>Rhus typhina</i>) Summersweet (<i>Clethra alnifolia</i>) Sweetspire (<i>Itea virginica</i>) Viburnum (many species) Wax myrtle (<i>Myrica cerifera</i> , <i>Morella cerifera</i>) Winterberry (<i>Ilex verticillata</i>) Yaupon holly (<i>Ilex vomitoria</i>)
VINES	
Chinese wisteria (<i>Wisteria sinensis</i>) Creeping wintercreeper (<i>Euonymus fortunei</i>) English ivy (<i>Hedera helix</i>) Japanese wisteria (<i>Wisteria floribunda</i>) Periwinkle (<i>Vinca major</i> , <i>Vinca minor</i>) Porcelainberry (<i>Ampelopsis brevipedunculata</i>)	American wisteria (<i>Wisteria frutescens</i>) Carolina jessamine (<i>Gelsemium sempervirens</i>) Climbing aster (<i>Ampelaster carolinianus</i>) Crossvine (<i>Bignonia capreolata</i>) Maypops (<i>Passiflora incarnata</i>) Trumpet honeysuckle (<i>Lonicera sempervirens</i>)
PERENNIALS	
Butterfly bush (<i>Buddleja davidii</i>) Chameleon plant (<i>Houttunya cordata</i>) Lambsquarters (<i>Chenopodium album</i>) Largeleaf lantana (<i>Lantana camara</i>) Mountain bluet (<i>Centaurea montana</i>) Asiatic dayflower (<i>Commelina communis</i>) Oxeye daisy (<i>Leucanthemum vulgare</i>) Yellow archangel (<i>Lamium maculatum</i> or <i>Lamiastrum</i>)	Alumroot (<i>Heuchera americana</i>) Bleeding heart (<i>Dicentra canadensis</i> or <i>eximia</i>) Eastern columbine (<i>Aquilegia canadensis</i>) Fire pink (<i>Silene virginica</i>) Foamflower (<i>Tiarella cordifolia</i>) Green-and-gold (<i>Chrysogonum virginianum</i>) Phlox (many species) Tickseed (many species of <i>Coreopsis</i>) Wild geranium (<i>Geranium maculata</i>)

Section 6: Plant Pit, Hedge Trench, and Shrub Bed Preparation

Preparation of plant pits, hedge trenches and shrub beds shall be done in conformance with Leaflet No: 601, Planting Techniques for Trees and Shrubs, North Carolina Cooperative Extension Service, (1997), and the following procedures (see illustration below):

- Excavate pits with vertical sides approximately the depth of the rootball and with a circular outline which shall be approximately 2 to 3 times wider than the rootball. For planting pits, beds or trenches which are to be developed where paving existed previously, all paving and base stone shall be removed as part of the excavation.
- Remove rock, debris, inorganic compositions and chemical residues from soil in planting pits.
- Cultivate shrub planting pits to a minimum depth of 18 inches. Ground cover and vine planting pits shall be cultivated to a minimum depth of 12 inches.
- Install root ball on a flat, compact surface of undisturbed soil and remove any inorganic ties on top of the rootball. Remove the top 1/3 of wire baskets.
- Leave the top of the tree root ball exposed, to be covered by mulch only.
- Finish the planting with a minimum 3-inch layer of mulch of pine needles, tree bark or similar materials distributed around the tree trunk.
- Prepare soil, plant, fertilize, mulch, and control insects and disease in conformance with the North Carolina Cooperative Extension Service, Landscape Management Calendar, which is incorporated by reference hereto.
- Re-establish native plants salvaged from the site or relocated as a result of grading in conformance with the recommendations of the North Carolina Cooperative Extension Service.
- Support trees and shrubs adequately when planted in order to avoid interference with their typical growing patterns.

