

# Comprehensive Tree Plan Glynn County, Georgia

Adopted 09/07/06  
Amended 05/17/07

Purpose: This Plan is developed pursuant to 2-16-304 of the Glynn County Code. Upon adoption by the Glynn County Board of Commissioners it becomes the operating plan for all Glynn County agencies as they interact with trees. It describes how the County and its contractors, utilities and their contractors, homeowner associations, and private contractors for any construction in County parks, grounds, rights of way and any other Glynn County-controlled property, and adjacent private property to the extent it contains the Structural Critical Root Zones of County-owned trees, shall care for public trees.

## Tree Care Standards

### Adopted Guidelines and Standards

The following national and industry guidelines and standards are adopted as part of this policy:

American National Standards Institute (ANSI) Z60.1-2004 American Standard for Nursery Stock

ANSI Z133 2000 American National Standard for Tree Care Operations – Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush – Safety Requirements

ANSI A300 Part 1-2001 - American National Standard for Tree Care Operations - Pruning

ANSI A300 Part 2-2004 - American National Standard for Tree Care Operations - Fertilization

ANSI A300 Part 3-2000 - American National Standard for Tree Care Operations - for Support Systems (Cabling, Bracing, and Guying Established Trees)

The following University of Georgia publications are used as guides and standards for this ordinance:

“Construction Damage Assessments: Trees and Sites”, Dr. Kim Coder,  
1996. University of Georgia, Warnell School of Forestry

## Tree Planting Standards

### Preferred Species List

Large Trees with Wide Spread		Native Species
<i>Betula nigra</i> ‘Heritage’	River Birch	x
<i>Fagus grandifolia</i>	American Beech	x
<i>Liriodendron tulipifera</i>	Tulip Poplar	x
<i>Platanus occidentalis</i>	Sycamore	x
<i>Quercus falcata</i>	Southern Red Oak	x
<i>Quercus laurifolia</i>	Swamp Laurel Oak	x
<i>Quercus michauxii</i>	Swamp Chestnut Oak	x
<i>Quercus virginiana</i>	Southern Live Oak	x
Large Trees with Medium Spread		Native Species
<i>Acer rubrum</i> ‘Autumn Flame’	Red Maple	x
<i>Acer rubrum</i> ‘Red Sunset’	Red Maple	x
<i>Carya glabra</i>	Pignut Hickory	x
<i>Celtis laevigata</i>	Sugarberry	x
<i>Cunninghamia lanceolata</i>	Chinafir	
<i>Fraxinus pennsylvanica</i>	Green Ash	x
<i>Nyssa aquatica</i>	Water Tupelo	x
<i>Nyssa sylvatica</i>	Black Gum/Tupelo	x
<i>Quercus phellos</i>	Willow Oak	x
<i>Quercus shumardii</i>	Shumard Oak	x
<i>Ulmus parvifolia</i>	Chinese Elm	
<i>Zelcov serrata</i>	Japanese Zelcova	
Medium Trees with Medium Spread		Native Species
<i>Acer floridanum</i>	Florida Maple	x
<i>Carpinus caroliniana</i>	American Hornbeam	x
<i>Halesia carolina</i>	Carolina Silverbell	x
<i>Ilex opaca</i> ‘Fosteri’	Foster Holly	x
<i>Magnolia grandiflora</i>	Southern Magnolia	x
<i>Magnolia x soulangiana</i>	Tulip Tree	
<i>Prunus caroliniana</i>	Carolina Cherrylaurel	x
<i>Pyrus calleryana</i> ‘Redspire’	Callery Pear	
<i>Quercus acutissima</i>	Sawtooth Oak	x
<i>Quercus lyrata</i>	Overcup Oak	x

Medium Trees with Small Spread		Native Species
<i>Cercis canadensis</i>	Red Bud	x
<i>Ginkgo biloba</i> 'Sentry'	Sentry Ginkgo	
<i>Gordonia lasianthus</i>	Loblolly Bay	x
<i>Ilex opaca</i>	American Holly	x
<i>Lagerstroemia indica</i>	Crapemyrtle	
<i>Pyrus calleryana</i> 'Capitol', et.al.	Callery Pear	
<i>Taxodium distichum</i>	Baldcypress	x
<i>Juniperus silicicola</i>	Southern Red Cedar	x
<i>Juniperus virginiana</i>	Eastern Red Cedar	x

Small Trees with Medium Spread		Native Species
<i>Amelanchier arborea</i>	Downy Serviceberry	x
<i>Cornus florida</i>	Dogwood	x
<i>Magnolia virginiana</i>	Sweetbay magnolia	x
<i>Osmanthus americanus</i>	Devilwood	x
<i>Sassafras albidum</i>	Common Sassafras	x
<i>Stewartia malacondendron</i>	Silky Stewartia	x
<i>Vitex agnus-castus</i>		

Small Trees with Small Spread		Native Species
<i>Chionanthus virginicus</i>	Fringe Tree	x
<i>Ilex aquifolium x cornuta</i>	Nellie R. Stevens Holly	x
<i>Ilex cassine</i>	Dahoon Holly	x
<i>Ilex vomitoria</i>	Yaupon Holly	x
<i>Osmanthus fragrans</i>	Fragrant Tea Olive	

### Planted Tree Size

The standard size at planting is two-inch (2") caliper for large and medium size category trees and one-inch (1") caliper for small size category trees.

### Planted Tree Quality

Trees selected for planting shall meet ANSI Z60.1-2004 American Standard for Nursery Stock.

## **Tree Transportation and Handling Standard**

### *Lifting, Loading and Unloading:*

Trees shall be loaded only by lifting and maneuvering the root ball. Lifting or moving trees by the trunk or limbs shall be sufficient cause to refuse both shipment and payment.

### *Protection During Transportation:*

Trees shall be transported such that they are protected from drying and breakage due to wind. Examples: Trees may be transported in a covered van. Trees may be transported on an open flatbed if the trees and root balls are tightly tarped so the tarps do not flap or rebound more than four inches at highway speeds.

Tree root balls and leaf crowns shall be thoroughly watered immediately prior to transport.

Transport shall be made nonstop from the tree source nursery to the Glynn County holding area.

Trees shall be offloaded only by lifting and manipulating the root ball. Dropping trees, injuring trunks or branches or handling trees by other than the root balls shall be sufficient cause to reject a shipment in whole or in part.

Tree root balls and leaf crowns shall be thoroughly watered immediately upon completion of unloading.

Trees shall be watered daily until planting sufficient to prevent leaf wilting.

## **Planting Space Standard**

### *Required Minimum Areas*

Large Trees shall be provided a minimum 400 square feet of permeable soil with a minimum horizontal dimension of twenty feet (10').

Medium Trees shall be provided a minimum 280 square feet of permeable soil with a minimum horizontal dimension of twenty feet (8').

Small Trees shall be provided a minimum 100 square feet of permeable soil with a minimum horizontal dimension of twelve feet (5').

### *Underground Utilities Location Required*

Underground utilities must be located prior to planting in order to avoid damage to utilities during planting operations, damage to utilities after planting due to tree growth conflicts, and severe injury and damage to trees after planting due to utility repair and maintenance. The Utilities Protection Service “Call Before You Dig” number 1 (800) 282-7411 shall be called prior to planting to mark underground utilities. A lead time of 1-2 weeks is recommended to allow adequate time for response and possible relocation of planting sites.

#### **2-16-311     Utilities**

Except as approved otherwise by the Tree Board:

Trees categorized as small-height, small-spread (SS); small-height, medium-spread (SM); and medium-height, small-spread in the tree plan shall not be planted under or within twenty (20) lateral feet of any overhead utility wire.

Trees categorized as medium-height, medium-spread (MM) or large-height, medium-spread (LM) in the tree plan shall not be planted under or within forty (40) lateral feet of any overhead utility wire.

Trees categorized as large-height, wide-spread (LW) in the tree plan shall not be planted under or within fifty (50) lateral feet of any overhead utility wire.

No trees categorized as large-height or medium height shall be planted over or within ten (10) lateral feet of any underground water line, sewer or drainage line, transmission line or other utility. No trees categorized as small-height shall be planted over or within six (6) lateral feet of any underground water line, sewer or drainage line, transmission line or other utility. The allowable distance of trees from utilities shall not apply to existing trees.

#### **2-16-309     Distance from Curbs or Sidewalks**

Except as approved otherwise by the Tree Board, the distance street trees are planted from curbs or curb lines and sidewalks shall be in accordance with the species size classifications listed in the tree plan; excepting those cases where a Planned Development, as set forth in Section 723 of the

Zoning Ordinance of Glynn County, has been approved. No trees may be planted within eight (8) feet of the edge of paving, curb or gutter of any road nor closer than five (5) feet from the edge of any sidewalk. The allowable distance of street trees from curbs or sidewalks shall not pertain to existing trees. The Tree Plan shall define the terms small, medium or large trees as used herein.

## **2-16-310 Distance from Street Corners and Fireplugs**

Except as approved otherwise by the Tree Board, street trees shall be planted no closer than 30 feet of any street corner, measured from the point of nearest intersecting curbs or curb lines. Street trees or park trees shall be planted no closer than 8 feet of a fireplug. The allowable distance from street corners and fireplugs shall not apply to existing trees.

## **Planting Time**

Recommended tree planting season is December (winter solstice) through March (vernal equinox).

## **Planting Plan**

No tree planting on County controlled property may occur without first obtaining a permit from the Public Works Director.

A written Planting Plan shall be developed with the advice of the Glynn County Tree Advisory Board and submitted to the Public Works Director for approval.

Planting Plans shall include:

- A scaled drawing showing the proposed planting location of each tree
- The proposed tree species to be planted at each location
- All built infrastructure, especially paving, utilities, buildings.
- All immediately adjacent trees over twelve inches (12") in diameter.
- The Utilities Protection Center (UPC) Locate Ticket number(s).
- Project approval from the Tree Advisory Board.
- Project approval from the County Department Director responsible for the planting site (Examples: Recreation and Parks Director for park plantings, Fire Chief for plantings at firehouses)
- Establishment plan identifying the person responsible for watering and maintenance for two years after planting

## **Planting Hole Dimensions**

### *Planting Hole Width*

The planting hole for each tree shall have a minimum diameter equal to three times the diameter of the root ball.

### *Planting Hole Depth*

Trees shall be planted so the first order lateral roots are just under the surface of the ground at completion of planting.

The planting hole for a tree shall be dug no deeper than the depth from the bottom of the root ball to the bottom of the first order lateral roots so the root ball rests on undisturbed soil.

## **Soil Amendments**

Soil amendments are generally not recommended during planting. Where sterile soils are suspected, inoculants of soil bacteria, actinomycetes and mycorrhizal fungi are recommended.

### *Mulch*

Wood mulch shall be placed and maintained to a depth of four inches around each tree to the limits of the tree planting hole or the drip line of the tree, whichever is greater, but leaving the base of the tree free of mulch within five inches of the trunk. Mulch should be replenished in the spring and autumn.

### *Fertilizer*

No fertilizer shall be applied to the planting area until the tree has been in place one year or one full growing season, whichever is longer. After this initial establishment phase, a slow-release nitrogen source complete fertilizer with micronutrients may be applied at a rate not to exceed of two pounds of nitrogen per thousand square feet.

## **Staking and Guying**

Staking is recommended for the first year after installation. All staking materials shall be removed one year after planting. Staking shall meet ANSI A300 Part 3 standards.

## **Watering**

Watering with a yucca extract surfactant additive is strongly recommended.

Watering using water-metering bags (i.e. Treegators) is strongly recommended.

If water-metering bags and yucca extract additive are used the following watering schedule (filling watering bags) is recommended:

After planting and through the first growing season (until autumnal equinox): water with twenty gallons (20gal.) (standard Treegator bag) twice a week per tree. Bag fills at 3-4 day intervals regardless of rainfall amounts.

After the autumnal equinox and through the second year after planting, water with twenty gallons (20gal.) (standard Treegator bag) once a week per tree.

## **Pruning**

Pruning at planting and during establishment shall be limited to removal of broken or injured branches.

Pruning shall meet ANSI A300 Part 1 – 2001 standard.

## **Pest Control**

Trees should be inspected at watering for disease and insect infestations and treated as needed to restore health. Fire ant infestations should be treated upon discovery by the watering crew.



# Established Tree Care

## Pruning Standards

### Pruning Class Standards

#### *Areas Exempted from Pruning Requirements*

Tree pruning standards are not applicable to natural woodland, managed timber, rights of way used exclusively for drainage, or high voltage (= or > 46,000KV) power transmission corridors on property owned or controlled by Glynn County.

#### *Class I Fine Pruning (the largest deadwood is ½ inch or smaller)*

Fine Pruning shall consist of removal of dead, dying or diseased interfering, objectionable, obstructing and weak branches, as well as selective thinning to lessen wind resistance. The removal of such described branches is to include those on the main trunks, as well as those inside the leaf area. An occasional branch up to ½ inch in diameter, as described above, may remain within the leaf area to its full length when it is not practical to remove it.

#### *Class II Medium Pruning (the largest deadwood is 1 inch or smaller)*

Medium Pruning shall consist of removal of dead, dying or diseased interfering, objectionable, obstructing and weak branches, as well as selective thinning to lessen wind resistance. The removal of such described branches is to include those on the main trunks, as well as those inside the leaf area. An occasional branch up to 1 inch in diameter, as described above, may remain within the leaf area to its full length when it is not practical to remove it.

#### *Class III Coarse Pruning (the largest deadwood is 2 inches or smaller)*

Coarse Pruning shall consist of removal of dead, dying or diseased interfering, objectionable, obstructing and weak branches, as well as selective thinning to lessen wind resistance. The removal of such described branches is to include those on the main trunks, as well as those inside the leaf area. An occasional branch up to 2 inches in diameter, as described above, may remain within the leaf area to its full length when it is not practical to remove it.

#### *Clearance Elevation*

This work involves target removal of a limb or limbs to permit vehicle or pedestrian movement or similar activity. No other remedial pruning is performed.

### *Line-of-Sight Clearance Pruning*

This work involves target removal of woody vegetation encroaching into the clear zone at intersections as described in the Zoning Ordinance of Glynn County, Article VI. Section 615 and Section 616, reprinted below:

#### **Section 615. Vision Clearance at Street Intersections**

In all zoning districts established by this Ordinance, except the GC General Commercial District, no fence, wall, terrace, sign, shrubbery, planting or structure or object capable of obstructing driver vision between the heights of thirty (30) inches and ten (10) feet above the finished street level shall be permitted on a corner lot within twenty-five (25) feet of the point formed by the intersection of the street right-of-way lines (or such lines extended in case of a rounded corner) which bound said lot.

#### **Section 616. Vision Clearance at Private Roadway and Entrances Intersecting with Public Streets**

No fence, wall, hedge or other planting, or sign forming a material impediment to visibility over a height of two and one-half (2.5) feet shall be erected, planted, placed or maintained within twenty-five (25) feet of the point of a public street with any private roadway or drive which serves more than one (1) dwelling unit.

#### **Pruning Quality**

Pruning shall meet the ANSI A300 Part 1- 2001 pruning standard except as otherwise provided in this Standard.

#### **Pruning Class**

Unless otherwise specifically noted, Class II medium pruning is the standard extent of pruning for County trees.

#### **Limb Clearance**

Vertical limb clearance shall be a minimum of thirteen feet six inches (13'6") over roadways, twelve feet (12') over driveways and eight feet (8') over sidewalks under worst loading conditions.

## **2-13-29 Additional Requirements. (Glynn County Code)**

(a) The maximum height of a building, house or structure to be moved shall not exceed eighteen (18) feet, as measured from the base of the structure. The maximum width of the structure to be moved shall not exceed sixteen (16) feet.

(c) It shall be unlawful to cut any tree or limbs thereof prior to or during such move without the express written approval of the owner of property where the trees are located. Any tree or limb that is located on Glynn County right-of-way that needs to be cut or trimmed shall require written approval from the Glynn County Tree Board.

## **Mulching Standards**

### **Tree Mulching**

A layer of tree-source organic mulch should be maintained at a depth between two and four inches (2" – 4") at all times. Recycling wood chips from tree maintenance operations is specifically encouraged.

## **Pest Control**

### **Pest Control**

Pest control is restricted to treatment to control fire ants and control of poison ivy on trees in pedestrian areas. Control will be provided 1) upon notification of infestation and 2) on a funds available basis.

## **Tree Protection during Construction**

### **Exemptions**

This section pertains only to Large tree species of both Wide and Medium spread as listed on Page 2 of this Plan which are fourteen inches (14") in diameter or greater as measured four and one-half feet (4.5') above grade; and Eastern Red Cedar (*Juniperis virginiana*) and Southern Red Cedar (*Juniperis silicicola*) trees six inches (6") in diameter or greater.

## **Tree Protection Required**

Tree protection is required throughout the duration of any construction activity(ies) whenever the Structural Critical Root Zone (SCRZ) or leaf canopy of protected trees may be encroached upon by such activities.

### **Structural Critical Root Zone Protection**

The Structural Critical Root Zone (SCRZ) is defined as that soil volume within the radius stated for a tree of a given diameter as listed in "Tool #8" in "Construction Damage Assessments: Trees and Sites", Dr. Kim Coder, 1996. University of Georgia, Warnell School of Forestry.

The SCRZ shall be protected with fencing adequate to hinder access to people, vehicles and equipment.

Tree Protection fencing shall be erected prior to soil excavation, boring, grading or fill operations. Tree protection fence is the last item to be removed from the site after construction is completed.

In the event that portions of the SCRZ of a tree to be retained are not practical to erect due to construction or obstacles, tree protection fencing shall be placed three feet laterally from the obstruction (ex. three feet back of curb, building, or other existing or planned permanent infrastructure).

Tree Trunk Protection is required where SCRZ protection fencing is not practical. Tree trunks shall be wrapped in pine 2x4 and accessible critical structural root zones covered with wooden pallets.

### **Trenching within the Structural Critical Root Zone Prohibited.**

*(Amended 05/17/07)*

#### *Utilities Installation*

No trenching or excavation is allowed within the fenced area of the structural critical root zone (SCRZ) of a tree (Tool #8, Coder).

Underground utilities that cannot be routed outside the fenced SCRZ of a tree may be installed by boring if boring meets the following standards:

Sending and receiving pits must be located outside the SCRZ;

Minimum depth of the bore shall not be less than 24" below grade.

This portion of the Comprehensive Tree Plan, Glynn County, Georgia 2006 titled "Trenching within the Structural Critical Root Zone Prohibited" shall only apply in

situations where both the tree and the area where the work required herein is to be done on property within Glynn County right of way.

## **Tree Removal**

### **Dead Trees**

Dead Trees will be considered for removal depending upon three priority criteria:

- Probability of a Target Hit if Failure Occurs (Highest chance of causing injury or property damage)
- Degree and Rate of Deterioration (Most rot, position of defect, shortest probable time to failure)
- Funds Available

### **Living Trees**

Removal of a living tree is subject to the same criteria as a dead tree. In addition, a living tree may be removed in the event it has lost:

- half its leaf canopy and limbs; or
- half the circumference of cambium layer at any point on the main trunk; or
- half the root system within the critical root zone.

### **Stump Removal**

Stumps will be considered for removal depending upon three priority criteria: Public safety, public visibility, and funds available.

Stump removal is considered complete when all primary roots are severed from the stump and the stump is removed to a depth of 14" below grade. In addition, soil/woodchip mix that is greater than 50% wood chips by volume must either be 1) amended with clean additional soil to bring the ratio of chips:soil within standard or 2) excess chips may be removed and clean soil brought in to fill the resulting hole. A convex crown of soil:chips are expected to remain on site upon each completion.

## **2006-2007 Tree Planting Plan**

The Tree Advisory Board plans to plant trees in the following locations:

Frederica Road Corridor: 25 trees to replace the trees to be removed this year.

Demere at Bloody Marsh: (1-4) trees to be planted for Arbor Day, February 17, 2007

## **2006-2007 Tree Pruning and Removal Plan**

Due to the anticipated schedule of events and extensive pruning needs of trees in Gascoigne Bluff, The Glynn County Tree Board plans to concentrate all non-emergency tree pruning resources in Gascoigne Park for fiscal year 06-07. The current estimated cost to complete the identified work in Gascoigne Bluff is \$112,000. The Board of Commissioners has allocated \$100,000 in the 06/07 budget toward addressing the identified need. In addition, the Tree Advisory Board has requested \$12,000 from the 05-06 Budget Year be rolled over to address tree removal needs. Together these allocations will complete the tree care needs of Gascoigne Bluff within one year.