5.11.90 - Forests

A. **Existing Forest Preservation.** Existing forest types listed below shall be protected in accordance with Table 5.11.90.A:

Table 5.11.90.A: Existing Forest Preservation					
Zone	Maritime Forest	Upland Forest (Mature)	Upland Forest (Young)		
T1, T2	70% minimum	55% minimum	25% minimum		
T3, C3, C4, CP	65% minimum	45% minimum	20% minimum		
T4, C5, S1	60% minimum	20% minimum	10% minimum		

- B. **Mitigation.** Existing forests may be cut over a greater area than permitted in Table 5.11.90.A only if mitigation is provided and the following standards are met:
 - 1. The mitigation is determined by the Director to be necessary due to unique conditions on the site that make it impossible to meet the protection standards due to site size, shape, utilities, or other elements that are unique to the property.
 - 2. The best forests, in terms of percentage of tree size, tree health, and habitat value, shall be preserved.
 - 3. The protection level given forests shall not be less than 80 percent of that required in Table 5.11.90.A. Thus, a forest with a protection level of 45 percent could be reduced to 36 percent $(45\% \times 1.80 = 36\%)$.
 - 4. The land on which the mitigation is to occur shall be on the project site, except that within the T4 district only, where existing lots may be too small to permit on site mitigation, the land on which mitigation is to occur may be off-site, if within an approved mitigation bank area. All land used for mitigation shall be preserved as permanent open space.
 - 5. Mitigation shall consist of planting 1.25 acres of new woodland of comparable species for every one acre of disturbed forest for which mitigation is required. Planting requirements are shown in Table 5.11.90.B.

Table 5.11.90.B: Forest Mitigation Planting Requirements					
Plant Type	Quantity Per Acre	Size			
Maritime Forest					
Canopy Tree	25	2 ½-in. caliper			
Understory Tree	50	1 ½-in. caliper			

Shrubs	325	3-gallon pot
Upland Forest		
Canopy Tree	15	2 ½-in. caliper
Pine	25	8-foot height
Understory Tree	50	1 ½-in. caliper
Shrubs	325	3-gallon pot

- C. **Penalty for Disturbing Protected Forest Areas.** If a protected forest area is damaged or cut down during or after construction, the mitigation shall involve the creation of protected open space that is 1.25 times the area destroyed. This may result in a loss of buildable area and/or lots. The area shall be replanted at the rate specified in Table 5.11.90.B for the type of forest damaged or cut down.
- D. Penalty for Clear Cutting Prior to Development. Nothing in this section shall be construed as to prevent the practice of Silviculture for forestry as defined in Section 3.1.70 (Land Use Definitions). Forestry practiced in the County shall be accompanied by a Forestry Management Plan that has been approved by a registered South Carolina Forester. If the landowner and/or operator does not have a Forestry Management Plan, it shall be considered a willful violation of county ordinances. This section will apply to parcels greater than 5 acres. For tree removal on parcels less than 5 acres, see Section 5.11.100.D for penalties.
 - 1. **One Year Deferral.** If a property owner and/or operator clear cuts their property under the claim of forestry practice as described in Section 5.11.90.D, the submittal of an application for a development permit on any portion of the property will be deferred for one year. If the clear cutting operation violates the Forestry Management Plan in place, a five-year deferral may be applied.
 - 2. **Fire Year Deferral.** If a property owner and/or operator clear cuts their property and cannot meet the standards as defined in Section 5.11.90.D (does not have a Forestry Management Plan), an application for a development permit on any portion of the property will be deferred for five years. In addition, mitigation plantings for clear cutting activities will be required as outlined in Table 5.11.90.B (Forest Mitigation Planting Requirements). For the purpose of this section, clear cutting is defined as more than twenty-five (25) percent of the area of a parcel(s) acreage being cleared. If less than twenty-five (25) percent is cleared, staff may consider enforcement using Tree Removal Standards (Section 5.11.100.D).

E. Uses Permitted Within Forest Preservation Area.

- 1. To support wildlife habitats and corridors, these areas shall be preserved from the understory herbaceous layer to the overstory canopy layer. However, in some cases, the Director may allow selective underbrushing depending on the approved use of the area with the following qualifications:
 - a. Underbrushing is not allowed in the River Buffer area as per Section 5.11.60 (River Buffer); and
 - b. Underbrushing may be allowed in a community park.

- The following activities may be permitted within forest preservation areas with approval by the Director:
 - Low impact improvements such as bike paths, walking paths, picnic areas, wildlife viewing areas, etc.
 - b. Removal of invasive species and poisonous underbrush vegetation such as poison ivy, poison oak and poison sumac with hand-held equipment.
 - c. Low impact designed structures such as benches, shelters, and fences, as long as no specimen or preserved trees are removed, no structures are fastened to trees and there is minimal impact (trenching, grading) on the forest floor.
- F. **Forest Interconnectivity.** Protected forest resources shall, to the maximum extent practicable, be located to adjoin, extend, and enlarge any protected forest or other open space areas that exist adjacent to the development. Preservation of small, fragmented remnants of forest shall be avoided where possible.

(Ord. No. 2017/20, 6-26-17; Ord. No. 2023/04, 2-27-23)

5.11.100 - Tree Protection

All trees that are not protected under Section 5.11.90 (Forests) or Section 5.8.90 (Perimeter Buffers) shall be protected in accordance with this section.

- A. **General.** Careful site planning for new development shall, to the greatest extent practicable, preserve existing trees and vegetation on the property to be developed. This is to include all specimen trees in good health as well as groups of smaller healthy trees and understory vegetation that provide wildlife habitat, corridors, and bird nesting areas.
- B. **Specimen Trees.** A specimen tree is defined as follows:
 - 1. Understory trees Dogwood, Redbud, and Southern Magnolia that are equal to or greater than a diameter of 4 inches (DBH).
 - Overstory trees American Holly, Bald Cypress, Black Cherry, Beech, Black Oak, Black Tupelo, Cedar, Hickory, Live Oak, Longleaf Pine, Palmetto, Pecan, Red Maple, Southern Red Oak, Sycamore, or Walnut that are equal to or greater than a diameter of 16 inches (DBH).
 - All other trees equal to or greater than a diameter of 24 inches (DBH) except those identified as invasive species in Table 5.11.100.C.
- C. **Tree Survey Required.** Prior to any development approval, except bona fide forestry, the applicant shall provide a tree survey of the areas in which building, clearing or construction activities are planned in accordance with the following:
 - 1. The tree survey shall include all trees 8 inches DBH and larger, and all dogwoods (*Cornus spp.*), redbuds (*Cercis canadensis*), and magnolias (Magnolia spp.) four inches DBH and larger.
 - 2. The tree survey shall indicate species type and size (DBH).
 - 3. The tree survey shall be conducted by a certified arborist, professional urban forester, registered landscape architect, or registered land surveyor. All tree surveys shall be certified by a registered land surveyor.
 - 4. A tree survey shall be less than five years old beginning from the application submission date for which the survey pertains. The Director may require that a new tree survey be undertaken at the applicant's expense when it has been determined that a tree survey is more than five years old.

D. Tree Removal.

- 1. Preservation of Existing Trees a Priority. Reasonable design alternatives shall be explored to preserve existing trees to the extent practicable. At the discretion of the Director, a Certified Arborist Report may be required as part of the tree retention/removal plan for all specimen tress on a development site. Such report shall detail the general health of each tree and the steps necessary to promote survival during and after construction.
- 2. **Tree Removal Criteria.** Before approval to remove any tree over 8" DBH, or any specimen tree, is granted by the Director, the following criteria shall be considered:
 - a. It is difficult or impossible to reasonably use the property without the removal of the tree.
 - b. Roads, parking areas, drive aisles, paths and other site features have been designed around the canopies of existing trees to the greatest extent possible.
 - Removal will allow the preservation of other, healthier hardwood trees on the property.
 - Adjustments to the site plan cannot be made to save the tree without losing lots of floor area.
- 3. If the Director finds that the applicant has not met the criteria listed above, the removal shall require approval by the Planning Commission.
- 4. Mitigation. Where individual specimen trees are to be cut (see subsection B above), the developer shall plant sufficient trees having a caliper of 2.5 inches or more each so as to meet the DBH of the tree or total trees cut. Such trees shall be of the same species as those cut unless the Director approves other species to enhance the diversity to that similar to the native forest areas. All mitigation trees shall be planted within the disturbed area of the site.
- 5. **Existing Trees Used for Mitigation.** The saving of existing non-specimen trees is encouraged and may be utilized to meet the mitigation requirement above. Existing trees used for mitigation must be located within the disturbed area of the site.
- 6. Penalty for Removing Trees Prior to Permitting. If trees are cut down prior to a development receiving all necessary permits from the County, the County shall not issue a permit to allow the development to occur within two years of the tree removal, unless the property owner provides mitigation for the trees removed. Mitigation shall involve the replanting of trees a minimum of 2.5 caliper inches with a total caliper equal to 1.25 times that of the DBH of the trees removed.
- 7. Reforestation Fee. Where the director determines that the required replacement of trees is not feasible or not desirable due to the size and shape of property and/or structures, crowding of the trees to where thinning will be required, other design limitations, or other viable site constraints, such reduction shall be subject to a general reforestation fee. This fee shall be the actual and verified cost of the required tree replacement and shall be paid to the county before final approval is given for the development plan. The funds collected through this reforestation fee shall be used by the county to plant trees and other landscaping in highway medians, along roads, or on other public properties as deemed appropriate.

E. Tree Protection During Construction.

- Tree Protection Zone. A tree protection zone shall be shown on the development plan for all trees to be preserved. This zone shall encompass the drip line for protected forest areas and other groupings of trees. For all other trees, the tree protection zone shall be a radius of one foot for every inch of trunk diameter (DBH).
- 2. Alternate Tree Protection Zone. The Director may approve an alternate tree protection zone if it can be determined by a certified arborist or professional urban forester that one or more specific protection measures will result in no injury to any tree whose tree protection zone (see subsection D.1.) will be encroached upon during construction. In no case shall a protection zone be reduced to less than one-half of the area specified in subsection D.1. for any tree without approval of a variance; see Section 7.2.140 (Variance Permit). Approved

special tree protection measures shall be made part of the conditions of the development permit, and compliance with these measures must be certified in writing by the developer prior to issuance of a Certificate of Compliance.

- 3. **Construction Requirements.** Tree protection zones shall be established and maintained for each preserved tree on a development site as follows:
 - a. Fencing Required Prior to Construction. Conspicuous, four-foot-high tree protection fences are required to be erected around all trees or groups of trees to be preserved prior to site work or construction commencing and remain in place until a Certificate of Compliance is issued. The Director or designee shall inspect and approve the tree protection fencing and location prior to the beginning of clearing and grading work on the site.
 - b. **No Encroachment Permitted.** The protection fences shall prevent encroachment by people, equipment and vehicles. No building materials, dirt, debris, oils, paints, or any other materials shall be placed or stored within the tree protection zone.
 - c. Paving. The area within the tree protection zone must be open and unpaved, except where approved perforated pavers may be utilized, or tree aeration systems and tree wells installed.
 - d. **Change in Grade.** Change in grade shall not be permitted within the tree protection zone except for a two-inch cut or a two-inch fill of topsoil, sod or mulch.
 - e. **Underground Utility Lines.** Underground utility lines shall be routed around and away from tree protection zones. Necessary installation through tree protection zones shall be accomplished through tunneling, rather than cutting open trenches.
- 4. Penalty for Damaging or Cutting Protected Trees. If trees are damaged or cut down as a result of the construction process, the mitigation shall be individual plantings of trees a minimum of 2.5 caliper inches with a total caliper equal to two (2) times that of the DBH of the trees damaged or destroyed. Trees shall be planted within the disturbed area of the site. If all tree inches cannot be planted back on site due to site constraints, the remaining tree inches shall be subject to a general county reforestation fee; see Section 5.11.100.D.3 (Reforestation Fee).

F. Tree Removal on Developed Properties.

- 1. Single-Family Residential Lots.
 - a. Permit Required to Remove a Tree. On any individual single-family residential lot with an existing dwelling unit where construction was completed less than five years ago, a tree removal permit is required to remove specimen, grand, and/or mitigation trees, see Section 7.2.50 (Tree Removal Permit). On any individual single-family residential lot with an existing dwelling unit where construction was completed five or more years ago, a tree removal permit is required to remove grand and/or mitigation trees, see Section 7.2.50 (Tree Removal Permit). A grand tree is an exceptionally large tree for its species that is healthy and worthy of protection. It represents an individual tree that contributes aesthetically to the region's visual "sense of place" and serves as a seed stock for future generations. An individual tree is considered a grand tree by the following size criteria:
 - 1) Live Oak (*Quercus virginiana*), Black Walnut (*Juglans nigra*), or Longleaf Pine (*Pinus palustris*) that are equal to or greater than a diameter of 24 inches DBH.
 - 2) Loblolly Pine (*Pinus taeda*), Slash Pine (*Pinus ellitoi*), and Shortleaf Pine (*Pinus echinata*) that are equal to or greater than a diameter of 36 inches DBH.
 - All other species of trees, not defined above, that are equal to or greater than a diameter of 30 inches DBH except those identified as invasive species in Table 5.11.100.C.

- b. Tree Removal Permit Standards. A tree removal permit will be issued to remove a protected tree from a residential lot if the tree is dead, diseased, hollow, or has another condition that poses a hazard to people or structures on the lot or adjoining lot as determined by a certified arborist. Upon removal, the tree shall be replaced with one 2.5-inch minimum caliper tree of the same species, or a species recommended by a certified arborist and approved by staff.
- c. Removal of All Other Non-Protected Trees on Residential Lots. All other trees on a single-family residential lot with an existing dwelling may be removed without a permit, except for mitigation trees or trees within river buffers. Removal of trees within a river buffer and/or mitigation tree requires a tree removal permit; see Section 7.2.50 (Tree Removal Permit).
- 2. Tree Removal on All Other Developed Lots. For all other developed lots (excluding single family residential lots with existing homes), a property owner may remove dead or severely diseased trees upon receipt of a tree removal permit; see Section 7.2.50 (Tree Removal Permit). The application must be accompanied by a certified arborist's report stating that the tree is dead, diseased, hollow, or has another condition that poses a hazard to people or structures on the lot or adjoining lot. Upon removal, the tree shall be replaced with one 2.5-inch minimum caliper tree of the same species.
- 3. **Golf Course Tree Removal.** For new golf course developments, and for additions to, or renovations of, existing golf courses, the following tree standards apply:
 - a. Those areas in which golf course clubhouses, cart barns, snack bars, rest facilities, maintenance buildings, storage areas, and parking lots are to be located and will adhere fully to all tree standards of this Section.
 - b. Within active playing areas (to include, but not limited to fairways, adjoining mowed grass rough, water hazards, sand traps, and golf cart paths) and outdoor practice/training areas (including driving ranges, practice putting greens, etc.) removal of any specimen tree will require a tree removal permit; see Section 7.2.50 (Tree Removal Permit). Removal of specimen trees shall either meet the mitigation requirements of Section 5.11.100.D. (Tree Removal), or, where approved by the Director, off-site mitigation may take the form of highway landscaping in the public road right-of-way subject to County and/or SCDOT encroachment permits.
- 4. Utilities. Removal of specimen trees during the construction or maintenance of easements or rights-of-way for water, sanitary sewer, electricity, telephone, natural gas, cable, storm drainage, or other service lines, shall be exempt from the requirements of this Section provided that the applicable company or agency has executed an agreement with the County that:
 - a. Recognizes the need to minimize trimming of hardwood overstory trees that do not significantly interfere with the intended purpose of construction or maintenance;
 - Establishes, to the extent practicable, design guidelines for construction and maintenance which identifies the saving of hardwood overstory trees as a factor to be considered in the design process;
 - c. Establishes guidelines to avoid topping, or severe pruning of trees whenever reasonably practicable, and where it is unavoidable, to do so in the manner which is most aesthetically and ecologically acceptable to the County;
 - d. Provides for a consultation process with the Department of Community Development, including, when necessary, review by a certified arborist approved by the County, prior to the commencement of major construction or maintenance or the removal of any hardwood tree over 16 inches DBH;
 - e. Provides for submittal of annual line clearing plans to the Department of Community Development for review;

- f. Provides for submittal of annual herbicide spraying plans, including details of herbicides to be used as well as application methods, to the Department of Community Development for review. The public utility shall work with the Department of Community Development to identify procedures to contact citizens prior to spraying to advise of the date and approximate time that such activities will take place;
- g. Provides that a breach of such agreement constitutes a violation of this Section and thus a loss of exemption from the tree protection provisions of this Section; and
- h. Provides that appeals of administrative decisions made pursuant to such agreement shall be to the Zoning Board of Appeals.
- G. **Invasive Tree Species.** Native Lowcountry plant species should be protected from competition from invasive tree species. Invasive tree species are listed in Table 5.11.100.C.

Table 5.11.100.C: Invasive Tree Species				
Common Name	Scientific Name			
Chinaberry	Melia azedarach			
Chinese Tallow Tree/Popcorn Tree	Triadila sebifera			
Mimosa/Silk Tree	Albizia julibrissin			
Paper Mulberry	Broussonetia papyrifera			
Princess Tree	Paulownia tomentosa			
Tree of Heaven	Ailanthus altissma			

- 1. All invasive species less than 12 inches DBH may be removed without a tree removal permit.
- 2. Removal of an invasive species 12 inches DBH or greater requires a tree removal permit, see Section 7.2.50 (Tree Removal Permit) except when located on a single-family developed lot outside of a required buffer.

(Ord. No. 2015/32, § 1, 11-9-15; Ord. No. 2016/18, 6-27-16; Ord. No. 2017/20, 6-26-17; Ord. No. 2017/23, 8-28-17; Ord. No. 2022/30, 6-13-22)