

Subject/Topic: Tree Planting on Public Land
Topic Category: Environmental Mgmt./ Sustainability
Department Lead: Department of Parks and Recreation
Last Revised: 07-31-2018

Summary: This regulation is provided to ensure that public trees are selected and planted in a manner that results in a healthy and sustainable urban forest, enhancing County rights-of-way and open spaces both visually and environmentally.

Purpose: Trees contribute to the appearance of our county, filter our air and water, improve property values, reduce the impacts of the urban heat island and climate change, provide wildlife benefits, and shade our pavement. This regulation ensures that tree species are selected which are site-appropriate, that all sites are confirmed public sites appropriate for planting, and that sites are prepared and trees are planted using techniques that promote long-term health and survival.

Scope: On public land where such property interests allow for planting, such as in open space and parks, along certain public streets; including certain median strips, and certain miscellaneous street islands, trees must be planted, and their planting spaces prepared in accordance with the practices detailed below.

Policy Detail:

This regulation provides specifications and guidelines for proper siting and planting of trees in Arlington County.

Plant material and planting methods: All plants and planting methods must follow current ANSI A300 standards on plant material, practices, and timing of planting. All plantings must comply with the Arlington County Department of Parks and Recreation (DPR)'s current Planting Policies and Guidelines to protect our natural environment and prevent the spread of invasive species. When planting in a Resource Protection Area (RPA), only species native to Arlington County are allowed for planting, per the Chesapeake Bay Preservation Ordinance. Trees planted in Arlington County owned stormwater management facilities shall follow current Office of Sustainability and Environmental Management (OSEM) guidelines for tree selection and placement.

Tree replacement and protection: All projects involving work near trees or involving the removal of trees must comply with current Arlington County tree replacement and protection guidelines. These guidelines can be obtained from the County's Urban Forestry office.

Street Rights-of-way: Arlington County owns most of its streets and absent certain encumbrances, has the jurisdiction to plant trees in the right-of-way of these streets. Street tree plantings pose challenges as the trees must adapt to restricted soil space, ensure adequate sight lines, and avoid conflicts with parking, sidewalks, streetlights and both above ground and below ground utilities. All projects shall comply with the following due diligence, and planting requirements and guidelines when planting within rights-of-way:

1. **Due Diligence** - Determine whether it is legally permissible to plant on the site by: a) determining whether there is an applicable site plan, and if so, reviewing the site plan conditions or regulations; b) confirming the exact location of the property lines; and c) confirming the nature of any other

property interests that the County or any others may have on the site. In addition to the above, such due diligence shall be performed by utilizing all available resources and consulting with all relevant County Departments necessary to confirm that planting on the site is legally permissible. Such resources, shall include but not be limited to, land records, the County Surveyor, and street plans. If, after performing such due diligence, any questions remain as to whether planting on the site is legally permissible, the planting shall not take place and the matter shall be referred to the County Attorney's Office and County Manager's Office to determine whether any such planting will occur.

2. Select trees from the Arlington County recommended tree list, in coordination with the County Urban Forestry Office, within the restrictions of the DPR Planting Policies and Guidelines, and requirements for planting in RPAs (see <https://building.arlingtonva.us/chesapeake-bay-preservation-ordinance/>).
3. Do not plant center of tree within 2 feet of any curb or sidewalk and at least 5 feet away from driveways. Do not plant trees in planting strips or pits less than 4 feet wide to prevent root restriction, and conflicts with hardscape.
4. Perform all necessary research; including record information investigations and Miss Utility locates (call 811), to determine if there are existing utilities, and do not plant trees within 5 feet of any known sewer, water, gas, electric duct wire or circuit, or other underground utility line.
5. Trees located next to streetlight poles shall be selected and planted in compliance with the Arlington County Lighting Standards to ensure minimal interference with streetlights. Consider the growth habits and mature size of trees, to minimize impact.
6. Follow current overhead utility clearance requirements when locating trees and selecting species to consider height at maturity. Heights at maturity will be those recognized by the International Society of Arboriculture. Trees that may be appropriate for planting under utility wires can be found in the Arlington County recommended tree list, in coordination with the County Urban Forestry Office.
7. Locate trees in compliance with sight distance requirements. No planting shall be permitted which impedes or obstructs the view of traffic, traffic control devices, or conflicts with efficient street lighting or public utilities. Locating trees must meet the standards of the zoning Ordinance, Section §3.2.6A.4, Visual Clearance and the Sight Distance Triangle requirements in VDOT Road Design Manual.
8. Plant trees in a regular planting strip as directed in DPR's Tree Planting Strip details 1 and 2, found in County details 02930.4a and 02930.4b. Open planting strips are preferred, as they provide maximum infiltration of water and available root space.
9. When it is found to be necessary to plant trees in a tree pit, open soil area must be a minimum of 60 square feet (5 feet X 12 feet is commonly used, with 4 feet is the minimum width on any side). Plant trees in pits with adequate drainage as directed in the Street Tree Planting Pit details and drainage

details found in details 02930.3a, 02930.3b, and 02930.11c. Continuous soil panels (see detail 02930.11a, 02930.11b) must be used for every plan with more than one adjacent tree pit.

10. Soil quality and quantity shall follow the recommendations set out in the Appendix.
11. No objects, such as signs, traffic signals, parking meters or seating equipment shall be located in tree pits. In tree lawns, place signs at least 8 feet away from the trunk of any planted. If any conflict occurs with existing regulation on placement of required signage, coordinate with the County Urban Forestry Office to resolve the conflict. Consequently, tree planting should be planned understanding the requirements of sign placement.
12. Do not install annual plant material within 8 feet of trees, to avoid future damage to roots. The exception is seeding and sodding, for erosion control. Perennials and woody shrubs may be acceptable. Coordinate with the County Urban Forestry Office to confirm appropriate placement and species.
13. Stake trees with approval from the County Urban Forestry Office and only in areas of high wind, when tree is large (above 3-inch caliper) or when other significant pressure is exerted on the tree. Stake trees per DPR's details found in County standard details 02930.6 and 02930.7.
14. The use of tree grates should be avoided, as they pose a long-term maintenance burden. Where space restrictions dictate the need for tree grates, coordinate designs with the County Urban Forestry Office to ensure the minimization of conflict with proposed tree grates.

Public land, other than along streets: Public lands (parks, public facilities' grounds, and open space not used for other purposes) often provide the best places to plant trees, as soil space is often less restricted and typically fewer conflicts exist. At these locations, trees can thrive and provide the highest benefit to our community. All projects shall comply with the following requirements and guidelines when planting trees on Arlington County public lands:

1. **Due Diligence** - Determine whether it is legally permissible to plant on the site by: a) determining whether there is an applicable site plan, and if so, reviewing the site plan conditions or regulations; b) confirming the exact location of the property lines; and c) confirming the nature of any other property interests that the County or any others may have on the site. In addition to the above, such due diligence shall be performed by utilizing all available resources and consulting with all relevant County Departments necessary to confirm that planting on the site is legally permissible. Such resources, shall include but not be limited to, land records, the County Surveyor, and street plans. If, after performing such due diligence, any questions remain as to whether planting on the site is legally permissible, the planting shall not take place and the matter shall be referred to the County Attorney's Office and County Manager's Office to determine whether any such planting will occur.
2. Select trees from the Arlington County recommended tree list, in coordination with the County Urban Forestry Office, within the restrictions of the *DPR Planting Policies and Guidelines*, and requirements for planting in RPAs (see <https://building.arlingtonva.us/chesapeake-bay-preservation-ordinance/>).

Alternate suggestions should be cleared by the County Urban Forestry Office. Native species should be given priority. For more information on the native status of trees, consult the Virginia Plant Atlas, or Native Plants for Wildlife Habitat and Conservation Landscaping for the Chesapeake Bay, issued by the U.S. Fish and Wildlife Service. No trees on the most current Invasive Plant Species of Arlington County shall be planted.

3. Do not plant center of tree within 2 feet of any curb or sidewalk, or within 5 feet of a driveway. When planting near bike trails, plant no closer than 10 feet from the trail, to prevent conflicts from root intrusion.
4. Do not plant trees within 5 feet of any known sewer, water, gas, electric duct wire or circuit, or other underground utility line.
5. Trees located next to streetlight poles shall be selected and planted in compliance with the Arlington County Lighting Standards to ensure minimal interference with streetlights. Consider the growth habits and mature size of trees, to minimize impact.
6. Follow current utility clearance requirements, considering height at maturity of the species. Heights at maturity will be those recognized by the International Society of Arboriculture. Trees that may be appropriate for planting under utility wires can be found in the Arlington County recommended tree list, in coordination with the County Urban Forestry Office.
7. Locate trees in compliance with sight distance requirements. No planting shall be permitted which impedes or obstructs the view of traffic or conflicts with efficient street lighting or public utilities. Locating trees must meet the standards of the zoning Ordinance, Section §3.2.6.A.4, Visual Clearance and the Sight Distance Triangle requirements in VDOT Road Design Manual.
8. Plant spacing is defined by the individual species' growth habit. This spacing is noted in the Arlington County recommended tree list. Unlike street trees, species planted in open space do not have the same spacing requirements. The mature width noted in the recommended tree list should be used as a guideline, but closer grouping may be appropriate, especially in more naturalized settings.
9. Plant trees per the details shown in County standard details 02930.1 and 02930.2.
10. Soil quality and quantity shall follow the recommendations set out in the Appendix.
11. Stake trees with approval from the County Urban Forestry Office and only in areas of high wind, when tree is large (above 3-inch caliper) or when other significant pressure is exerted on the tree. Stake trees per DPR's details found in the County standard details 02930.6 and 02930.7.

Review: The County Urban Forestry Office shall review any plan involving tree plantings within 30 days of plan submission. Such review shall include confirmation that the applicable due diligence has been satisfactorily completed. Large-sized plantings (over 10 trees) in a park or area managed by another agency must be cleared by that agency's planning staff before approval.

Replacement, watering, and maintenance responsibility for County entities: The Arlington County department that plants trees in right-of-way is responsible for replacement in case of tree death within 1 year after planting, and responsible for watering of tree(s) larger than 1 inch caliper for 2 years after planting. Trees smaller than 1 inch caliper should receive watering at planting and 48 hours after planting. After the 1 year establishment period, the maintenance of trees in right-of-way becomes the responsibility of DPR. After 2 years, if additional watering is needed, this will become the responsibility of DPR. Coordination on the transfer of maintenance is the responsibility of the department performing the planting.

Trees outside of the right-of-way that are planted on public lands not owned or managed by DPR will remain the responsibility of the County department or agency managing that land.

Replacement, watering, and maintenance for non-county entities: Non-county entities, such as private property developers, or other entities planting or preparing planting space on public land, are subject to site plan regulations, where applicable.

Enforcement: The Director of the DPR is responsible for the supervision and enforcement of this regulation. The Director of DPR shall act as the agent of the County Manager in these matters.

Appeal: Decisions made by the Director of DPR in her or his exercise of the supervision and enforcement of this regulation may be appealed by addressing a request for such appeal, in writing, to the County Manager.

Exceptions: If the project design criteria require the use of species not recognized in this regulation or that hardscape design and tree planting conflicts are too great, the Director of DPR, or her or his authorized representative, may grant exceptions to this regulation. To receive an exception, the entity responsible for the tree installation must demonstrate to the satisfaction of the Director that the substitutions will satisfy the intent of this regulation and that the substitution serves the best interests of the community.

APPENDIX: Planting and soil preparation Details

The following details are current as of the time of this administrative regulation revision. Subsequent details may supercede these details. Inquire with the County Urban Forestry Office for the most current details.

Soil: volume and quality

- I. Volume: It is the goal of the County to maximize healthy soil available to newly planted trees. All trees should be allotted at least 60 square feet of open soil space with a minimum width of 4 feet, but space shall be maximized, with a target of 250 square feet of open soil space per tree. Where needed, due to hardscape obstruction, soil expansion techniques, such as structural cells or continuous soil panels can be used to expand available soil space. Total soil volume can be calculated using 3 ft. of depth. Ideal healthy soil volumes for trees are as follows. Options should be exhausted to provide this space. Shared soil space between adjacent trees can be counted, up to the adjacent tree.
 - a. Small trees (ornamental trees): 600 Cu. Ft.
 - b. Medium trees (many evergreens, and some deciduous trees): 900 Cu. Ft.
 - c. Large trees: 1,200 Cu. Ft.

- II. Quality: At a minimum, any soil mix used should meet the standard in the County standard detail 02930.1: Tree Planting Detail. When a site is newly developed, where healthy soil is not present for planting, soil shall be replaced with new soil, accompanied with a soil test. If the site has existing topsoil, a soil test should be performed to ascertain the quality of the soil is appropriate. Soil tests shall be supplied to the County Urban Forestry Office for approval.



ADMINISTRATIVE REGULATION 4.3: TREE PLANTING ON PUBLIC LAND.

History/Background:

Effective 5-20-1967
Revised 7-1-1978
Revised 7-1-1982
Revised 7-23-2018

Authored by: Vincent Verweij, Urban Forest Manager, Department of Parks and Recreation.

Approved: Mark Schwartz July 31, 2018
Mark Schwartz, County Manager Date

