



Town of Garrett Park

Town of Garrett Park

Comprehensive Arboretum Plan

Part II: Operating Procedures

This section of the Comprehensive Arboretum Plan (CAP) provides the procedures and recommendations for tree selection and planting, tree care and protection, regulations and permitting, and educational outreach for the Town of Garrett Park. The Operating Procedures document includes Workflow Diagrams to indicate which entity(ies) or individual(s) make decisions and delegate work as it relates to the trees of Garrett Park.

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Roles and Responsibilities

1. Arboretum Committee

Garrett Park Arboretum Committee members are appointed by the mayor to 5-year terms. The Committee advises the Town Manager and Council on policies affecting tree maintenance, planting, and removal, and apprises them on any other activities or issues around Town trees. The Committee's secondary role is enhancing the Arboretum's tree collection through facilitating the planting of appropriate **species** and **cultivars**. The Arboretum Committee also organizes educational programs and occasionally publishes news about the Arboretum in the *Bugle*, the town newsletter.

The Arboretum Committee will meet at least quarterly to discuss species acquisitions and removals and any other issues that arise involving Town trees. At least once every five years, the Arboretum Committee will review the Comprehensive Arboretum Plan and, as necessary, recommend revisions. All committee communications to the Council are made via a Council-designated liaison, who is an ex-officio member of the Committee.

2. Town Consulting Arborist

The Town Consulting Arborist (TCA) is responsible for:

- Upon request, inspecting trees on Town property for health and safety issues and recommending appropriate measures such as pruning and/or removal.
- Assessing potential tree planting sites, recommending species/cultivars for specific planting sites to the Arboretum Committee, sourcing trees approved for planting, and selecting individual specimens if nursery is local; marking planting sites and coordinating installation with Maintenance Staff.
- Consulting with the Arboretum Committee on selecting the tree species to be planted, including consideration of both the site and species selection. Species selection and site selection guidelines are outlined in Part D, Tree Care.
- Consulting with Town Staff regarding planting of newly acquired trees.
- Coordinating with tree care companies and with any agencies that impact tree care for completing approved tree work.
- Updating the Tree Inventory Database. (The Town Manager is the custodian of the tree inventory.)
- In conjunction with Town Manager, compile tree pruning and removal lists for tree maintenance firms and for reporting to MD Department of Natural Resources (DNR) at the end of each calendar year for annual renewal of the Roadside Tree Permit for tree care.
- Reviewing and consulting on tree protection plans with the Town Manager. Advising the Town Manager on tree protection inspections and proper implementation of tree protection measures during construction.
- Providing guidance to the Town's Maintenance Staff as needed.

- May perform seasonal structural and corrective pruning of young trees from ground where power or large equipment not needed.
- Conducting seasonal tree walks for the public and dealing directly with town residents concerning trees in right-of-way adjacent to residents' property. The Town Consulting Arborist should be ISA Certified, or a Maryland Licensed Tree Expert, or have functionally equivalent knowledge. The Town Consulting Arborist should be articulate and skilled at tactful interaction with residents.
- The Town Consulting Arborist is an ex-officio member of the Arboretum Committee.
- The TCA has no budgetary authority to approve or disburse funds, only to procure quotes (usually on plant materials) and to make recommendations for purchase.

In addition, as an accommodation to Garrett Park residents, the Town Office will forward to the TCA individual residents' requests for private consultations concerning trees on their own property (other than full evaluation).

3. Council Liaison

One member of the Town Council is appointed by the Mayor to be the Council Liaison to the Arboretum Committee. That individual is responsible for assuring adherence to the requirements of the Town Code of Ordinances by remaining informed of tree care and planting (especially removals), making periodic summary reports to the Council, and bringing to the attention of the Council those tree care items (e.g., extraordinary removals) that warrant the involvement of the full Council. The Council Liaison is an ex-officio member of the Committee.

4. Town Office

The Town Office includes the Town Manager and Town Staff. The Town Manager may also designate contracted staff. The Town Office is responsible for:

- As ultimate point of contact, aggregating tree removal, pruning, and planting requests and sending to the Town Consulting Arborist for assessment. May refer small or immediate tree-related tasks to maintenance staff to complete e.g., downed limbs.
- Maintaining communication with the Town Consulting Arborist about pending tree work.
- Maintaining, in conjunction with the Town Consulting Arborist, ongoing documents for Arboretum tasks (e.g., open-sites list, watch list).
- Providing final budget approval for tree purchases, pruning, and removals.
- Coordinating with the Town Consulting Arborist regarding tree protection plans.
- Maintaining a list of tree removals and prunings that occurred during the calendar year and reporting this information to Maryland Department of Natural Resources (DNR), per the requirements of The Roadside Tree Permit (RTP) for renewal of permit.
- Reviewing Arboretum-related budget items at least annually and adjusting as needed to accommodate changed or emergency expenditures, maintenance, and planting.

Operating Procedures

1. Arboretum Funding and Budget

The Town's annual budget includes funding for tree care and procurement, as well as miscellaneous expenses of the Arboretum. Although the Arboretum Committee does not have direct budgetary responsibility, it makes an annual recommendation as input for the mayor and Town Council in their formulation of the Town's annual budget. The Arboretum Committee will meet prior to the Town Council work session on the upcoming fiscal year budget (typically in February of each year). The Committee's budget recommendations are forwarded to the mayor and Council through the Committee's Council Liaison. The budget should have enough resources to:

- Plant new trees as replacement for removals and in available Town r-o-w and other spaces.
- Maintain a five-year pruning cycle.
- Fund tree risk mitigation and a five-year cycle of tree risk assessments (typically, the year after an inventory, the budget line item of tree removal or risk management is higher since the inventory identifies at-risk trees).
- Conduct re-inventory work, with database updates.
- Maintain contingency funds for any storm-related repairs, with the expectation of recurring intense storm events.
- Maintain dedicated funding for a consulting arborist.
- Fund education and outreach.

Additional budget/financial procedures: The Town Consulting Arborist (and any other entity performing continuing contract work on behalf of the Arboretum) shall submit invoices for reimbursement regularly, but no less often than quarterly.

2. Regulations and Permitting

The Town's ordinances currently address all plants planted or maintained by the Town on all public land owned by the Town, including parks, playgrounds, rights-of-way, planting strips, lands leased by the Town to others, and properties for which the Town has maintenance responsibilities. The Town regulates tree planting, maintenance, and removals within rights-of-way adjacent to residential properties as well as all other Town properties. It does not have any authority over trees on public lands owned by others, such as the M-NCPPC parks located within Town boundaries, but may work with that staff to coordinate tree care which may affect public safety on both Town and Park land.

Requests for any tree-related issue (from residents, the Arboretum Committee, maintenance staff, or elsewhere) are funneled to the Town Office, for appropriate action. The Town will implement an on-line form, available on the Town website, for residents and others to report tree maintenance issues, concerns,

or questions. The Town shall maintain an analogous form for completion by Town Office personnel to memorialize information from telephone reports by residents and others.

In this section, existing regulations are described, and recommendations are outlined for increasing the scope of tree ordinances to preserve trees and newly planted trees, especially with respect to construction and development in the town.

2.1 Town Projects

Section 716 of the Town Ordinances regulates Town Projects. All Town projects should undertake tree protection measures to help mitigate the risk of tree damage/death due to construction. Additionally, all Town Projects must follow the provisions outlined in Section 716 of the Town Ordinances, or whatever future Town Ordinance or regulation replaces Section 716 and which specifically deals with the issues presented in that Ordinance.

Recommendation:

All Town projects must include the submission and acceptance of a viable tree protection plan.

2.2 Construction Projects

Private Property

Recommendation: All construction projects including those on private property that could disturb the Critical Root Zone (**CRZ**) of a Town tree, must submit a viable tree protection plan. The tree protection plan will be reviewed and approved by the Town Consulting Arborist. The **CRZ** is to be determined at 1.5' radius/1" DBH (*see Glossary*) from the center of the affected tree. No more than 25% of the CRZ can be disturbed without an ISA certified arborist report and plan of action included in the tree protection plan.

Town Rights of Way

Current regulations: Section 715 of the Town Ordinances regulates the extent of landscaping that residents can undertake within planting strips. Planting strips are defined as “those strips of land in Town rights-of-way which are not paved for vehicular use and which lie between the paved portion of said streets and adjacent private property lines.” All tree planting, maintenance, and removal are the responsibility of the Town within planting strip or Town right-of-way (r-o-w). The Town has a current r-o-w map from 2017 (<https://www.garrettparkmd.gov/government/records-and-documents/right-of-way-maps>) that should be consulted to delineate public areas from private.

Recommendation: New sidewalks should include a 5-foot-wide tree lawn planting strip if the r-o-w is wide enough. This spacing provides a setback for sidewalk safety, as well as a planting strip wide enough for a *tree alley, (or line of trees)* preserving the historical look of the town. Narrower planting strips are not sufficient for healthy tree growth (especially large-statured trees). The Town Consulting Arborist should be involved in the planning of any sidewalk installation or major repair, especially if it means

cutting tree roots. The Town could consider other approaches, such as root bridges or innovative paving techniques (like rubberized surfaces) rather than replacing a heaved sidewalk if it is deemed important to do so to avoid severing large tree roots (severing large roots can not only affect the short- and long-term health of a tree but can potentially result in premature failure during storms).

It should be noted that the Town may not have complete control over all sidewalk construction and repair, as MD 547 (Strathmore/Knowles) bisecting the town is a state road. Attempts should be made to establish a collaborative relationship.

3. Tree Care

The Town is issued an annual blanket Roadside Tree Permit (RTP) by the Maryland Department of Natural Resources; see Appendix V (p. 25) to view the 2019 permit. By its terms, the RTP authorizes the Town to conduct “Tree Removal, Tree Pruning, Tree Planting, and Protection of Tree Roots” subject to “Limitations and Conditions.” For purposes of this document, the Town will employ the Conditions of the Roadside Tree Permit (RTP) as its Operating Procedures and will adhere to those procedures in order to maintain the validity of the blanket RTP.

In addition to the criteria and procedures for tree removal, tree planting, and tree care set forth in the DNR Roadside Tree Care list of Terms and Conditions, the Town should adhere to the following practices and procedures for tree care:

- American National Standards Institute (ANSI) *American National Standard for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning)* standards
- Z133 Safety Standards and International Society for Arboriculture (ISA) Best Management Practices.
- Additional recommendations as outlined in this document.

Specific recommendations for tree care are outlined in detail below according to four phases of an ongoing cycle: planting, maintenance, removal, and replacement.

3.1 Tree Planting

The tree planting phase involves selecting appropriate site(s), species, and tree(s); planting trees properly; and helping trees establish and thrive through regular professional maintenance practices such as watering, mulching, and pruning.

3.1.1 Selection

Identify Appropriate Sites

Potential sites can be suggested by Garrett Park residents, Town Manager, Town Consulting Arborist, Town Maintenance Staff, or the Arboretum Committee. The Town Consulting Arborist will perform a site assessment to determine if a suggested site is appropriate for a tree planting. The

Town Office maintains a list of open spaces throughout the Town and will both use the list to suggest potential sites for assessment by the Town Consulting Arborist to identify sites and their conditions and constraints. The Town Consulting Arborist has responsibility for developing this list in conjunction with maintaining the comprehensive tree inventory/database.

The site conditions include utility lines, driver/pedestrian line of sight, cultural conditions, and soil and light conditions, and available ground and aerial space. Additional criteria to consider when selecting a site include:

Canopy trees – These are species that will attain large sizes, as in shade trees. (*See Glossary*) Canopy tree planting sites must have a **tree lawn** at least 5' wide. Tree lawns that are less than 4' wide pose challenges for trees, as the rooting soil volume is often not great enough to support healthy tree growth. Many people believe that tree roots will just grow under the sidewalk towards a greater soil area in the front yards, but that is not always possible, nor does the root “know” to grow past the sidewalk to the front yard. Tree lawns are also where the greatest salt load occurs, as de-icing salts are splashed or plowed onto the tree lawn in the winter.

Sites adjacent to a front yard are ideal, because they offer relatively unrestricted rooting soil volume. Canopy trees should also be sited where there are no overhead utilities, driveways, or fire hydrants that could obstruct their growth, or where their growth would severely obstruct streetlights.

Parks – Parks present an opportunity to plant large canopy trees. Factors such as foot traffic, mowing, and other park uses can affect species choices. Parks also present an opportunity to plant native trees or *cultivars* of *native and non-native plants* that are not appropriate for forested areas, because park trees tend to be more *intensively managed* (CAP Part I, p.55). Cultivars may be suitable for certain visible planting areas within parks and plantings strips.

Forested areas – Forested areas should ideally be maintained to represent indigenous ecosystems. When possible, forested areas should only be planted with native species sourced from local ecotypes (plants raised from seeds, divisions, or cuttings taken from local wild plants). Cultivars should not be planted in forested areas, because *natural area trees* (CAP Part I, p. 56) benefit from the genetic diversity of existing local tree populations, and native species may have particular regional adaptations that cultivars do not.

Plowed snow – Areas where plowed snow is piled in winter should be avoided as prospective tree planting sites. Town Maintenance Staff may be consulted for the location of annual snow piles.

Choose a Species

After a site is selected, the Town Consulting Arborist in consultation with the Arboretum Committee will help select one or more species appropriate to that site. Some goals of successful species selection are as follows:

Goal	Rationale
Increase tree diversity and forest resilience	Ensure diversity in general such that no one genus constitutes more than 5-10% of the total intensively managed trees. Exceptions may be made if the genus encompasses plantings that were naturally occurring or were added by residents and are shrubby or small-statured (e.g., <i>Cornus</i>). New trees should be adapted to a warming climate, and a climate with intense weather events. Species and varieties will also be selected to take into account insect and disease resistance and structural integrity . Species and individual cultivars that are known for having structural weaknesses, such as poor branch attachment, should be avoided.
Increase habitat for wildlife	Increase habitat for wildlife – Especially in its forested areas, Garrett Park should favor native trees and plants when replacing or adding trees to its collection, in order to increase plant species with high wildlife value.
Plant only non-invasive	Follow the Invasive Plant Species Codes of Conduct endorsed by the American Public Gardens Association. An invasive species list should be developed and updated from the Maryland Invasive Species Council list or Montgomery County Parks list. The Town should also refer to the shorter list of plants regulated by the Maryland Department of Agriculture and review this list annually (MDA, 2019).
Help to interpret Garrett Park's natural and historical heritage	Help to interpret Garrett Park's natural and historical heritage - The tree collection should have representatives of the many beautiful and ecologically important trees of the mid-Atlantic Piedmont region . In the spirit of horticultural display, Garrett Park's tree collection should include taxa new to the horticulture industry, but only those that are not invasive.
Complement areas that already feature specific trees	Some streets feature specific trees; see Appendix III. Trees should be added to complement these areas.

Select and Acquire Trees

After a site and species are identified, individual trees are selected and acquired as follows:

1. The Town Consulting Arborist sources trees for planting and purchase.
2. The Town Consulting Arborist sends a list of trees and addresses to the Town Office. The Town Office submits the request to Miss Utility.
3. The Town Office purchases trees.

4. The site where trees are to be planted is marked by the Consulting Arborist. Town Maintenance Staff picks up and delivers the trees unless vendor provides delivery.
5. The Town Consulting Arborist reviews the specimens acquired for planting for any structural problems or insect or disease issues, and has the purview to reject any trees that do not meet the ANSI American Standard for Nursery Stock ([https://cdn.ymaws.com/americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI Nursery Stock Standards AmericanHort 2014.pdf](https://cdn.ymaws.com/americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf)). Corrective structural pruning, if required, should be done at this time.
6. Town Maintenance Staff plants the trees that have been reviewed and approved (see note regarding pre-planting preparation).
7. Town communicates with adjacent property owners regarding new plantings, including information about the tree and emphasis of the fact that tree care is done exclusively by the Town.

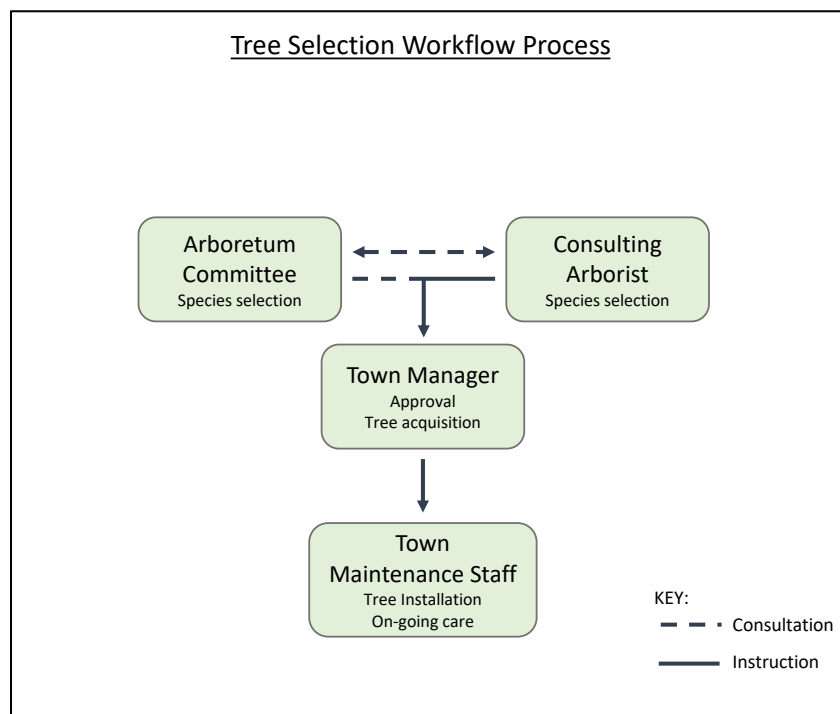


Figure 1: Tree Selection Flow Chart

Planting

In order to ensure proper planting depth, before digging each planting hole the Maintenance Staff must inspect the top surface soil level after removing any covering (burlap) or container. If the tree's root flare is not visible, excess soil must be carefully removed from the top surface until the root flare is exposed. **The depth of the planting hole should be determined only after the size of the root ball after uncovering the root flare is evident.**

Other basic tree-planting steps for balled nursery stock are included in the following graphic. For Garrett Park, the following amendments apply:

Guying – one year, no longer.

Tree guards – provided by the nursery or installed by Maintenance Staff *at planting* to protect from deer rubbing.

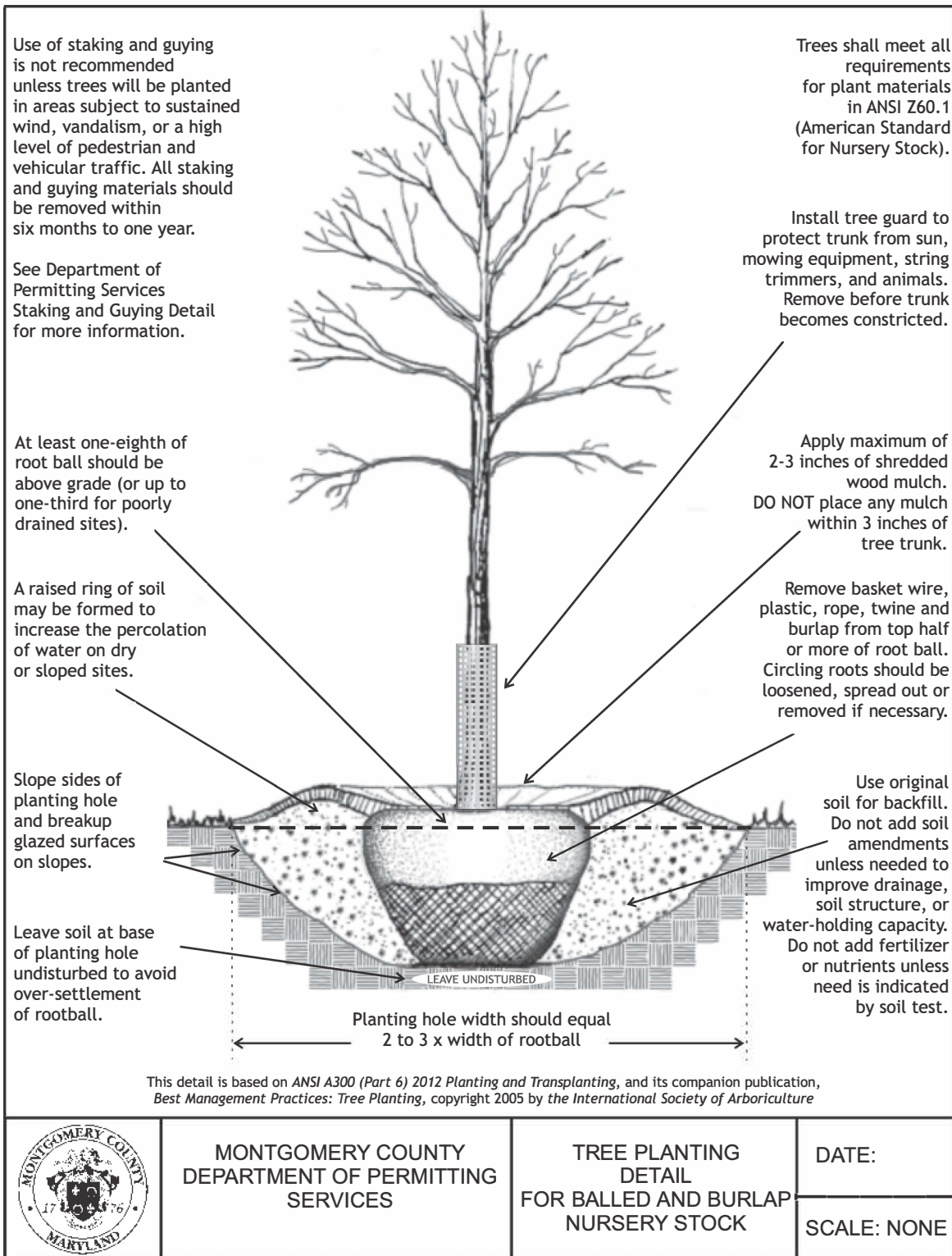


Figure 2: Tree Planting Detail

3.1.2 Planting and Establishment

The Town will utilize best management practices when planting new trees so that they establish well and thrive: provide for tree aftercare, structural pruning, and protection from deer and invasive plants. All tree aftercare will be performed by Town Maintenance Staff. TCA may also prune young trees to ensure development of proper mature structure and ensure no encroachment on sightlines or access.

- a) **Watering** – Use irrigation (e.g. ‘Gator) bags to provide sufficient water for tree root establishment. Watering recommendations depend on time of year planted and rainfall. Generally speaking, the irrigation bags should be filled up a minimum of two times per week for the first four months, and at least once every other week during the growing season, March 15 – November 15.

The irrigation bags can be re-used for several seasons, though current recommendations suggest a maximum of 1-2 years per tree to prevent shallow rooting and/or pests.

- b) **Structural pruning** – Prune to ensure future long-term structural integrity of trees including encouraging a main leader and minimizing cross-branching and narrow crotch angles. As a general goal, the Town will aim to provide structural pruning at least three times during the first seven years after planting. While not specifically structural, removing lower limbs, referred to as “elevation”, should be regularly done during this period to ensure good sight distances for vehicles and pedestrians, and shift growth to upper structural branches.
- c) **Deer protection** – All newly planted trees should have deer protection (guards) installed, which prevents damage from both rubbing and grazing. For most trees, A.M. Leonard Rigid Plastic Mesh Tree Guards 4-Inch Diameter, 48-Inch Length is recommended: <https://www.amleo.com/leonard-rigid-plastic-mesh-tree-guards-4-inch-diameter-48-inch-length/p/BG48/>. For low-branched, shrubby, or multi-stemmed specimens, 2x2” stakes and wire or plastic fencing should be used to surround the plant at its height, or to at least 4’.

The protection should stay in place until the tree has either grown or is able to be limbed up above the graze line, which is typically 4’-6’; OR has reached a diameter of 4-5”; OR has strained the limits of the tree guard. The guards should be inspected annually and removed or adjusted as needed.

- d) **Invasive plants** – Young trees should also be protected from invasive plants. Remove invasive plants, including vines, that threaten the trees. Monitor annually for regrowth.

3.2 Tree Maintenance

Once trees are established and thriving, they must be properly maintained to provide maximum benefit and minimal risk. The tree maintenance phase involves routine care over the course of each tree's life, as well as emergency care as needed.

Continuing Maintenance

1. **Informal tree condition inspections** – To be completed by the Town Consulting Arborist and submitted to Town Manager
 - a. The Town Consulting Arborist should check on and document newly planted trees once a year for at least the first 3 years after planting. Check trees annually for pruning needs, girdling roots, invasive plant competition, insects, and diseases. Take notes and make the required recommendations to the Town Manager to assure greatest tree health.
 - b. If a tree is identified as needing more frequent or intensive condition inspections, it should be so identified to the Town Office, which will maintain a list of such trees requiring heightened observation – the “watch list.”
 - c. Town office maintains maintenance lists; e.g., prune list, watch list, removals list.
 - d. Check that nails for tree inventory numbered tags have room for tree trunk growth, and that any tags wired on are loose enough for branch growth. As trees age, old-style embossed tags that were wired or screwed on can be added to the nailed numbered tags
 - e. Inputs and actions on tree condition and minor corrective measures can and should come independently from Maintenance Staff.
2. **Formal tree condition reports - Intensively managed trees** should have a Level Two Basic Tree Risk Assessment (*see Glossary*) every five years. These assessments should be conducted by an experienced ISA certified Arborist and recorded. A report of the assessments should be kept in the Town archives for 10 years.
3. **Pruning** - Any tree care company that is contracted with the Town should do its work in accordance to the latest ANSI standards of tree care, as well as the ANSI Z 133 Safety Standard. As stated above, each newly planted tree should be pruned to improve its structure the year after establishment planting, and every two or three years after, for a total of three pruning events. Currently, small or new trees are pruned both by the Town Consulting Arborist and Maintenance Staff. The TCA currently is limited to using hand (e.g., non-powered) tools only from the ground for safety reasons as the work is often solitary.

4. **Working with other Agencies** - PEPCO can exercise rights of maintenance of trees within powerline r-o-w's, and where trees could interfere with powerlines. PEPCO follows ANSI pruning standards and uses certified arborists for tree maintenance work. The Town should establish an ongoing relationship with PEPCO and other infrastructure companies whose work will impact trees. Engage the PEPCO consulting arborist and (to the extent possible) arborists for other utility companies, in order to ensure proper treatment of the trees. Garrett Park could consider adding an ordinance on pruning by public utilities; see CAP Part I, Appendix G (p. 108) for sample ordinances.
5. **Other Utilities** – The town maintenance staff will alert the Town Manager of any damage to trees caused by underground utilities (i.e. gas line and water line breaks or excavations) and the Town will notify the utility and formally request replacement by the utility of any tree damaged or destroyed by the malfunction of their utility.

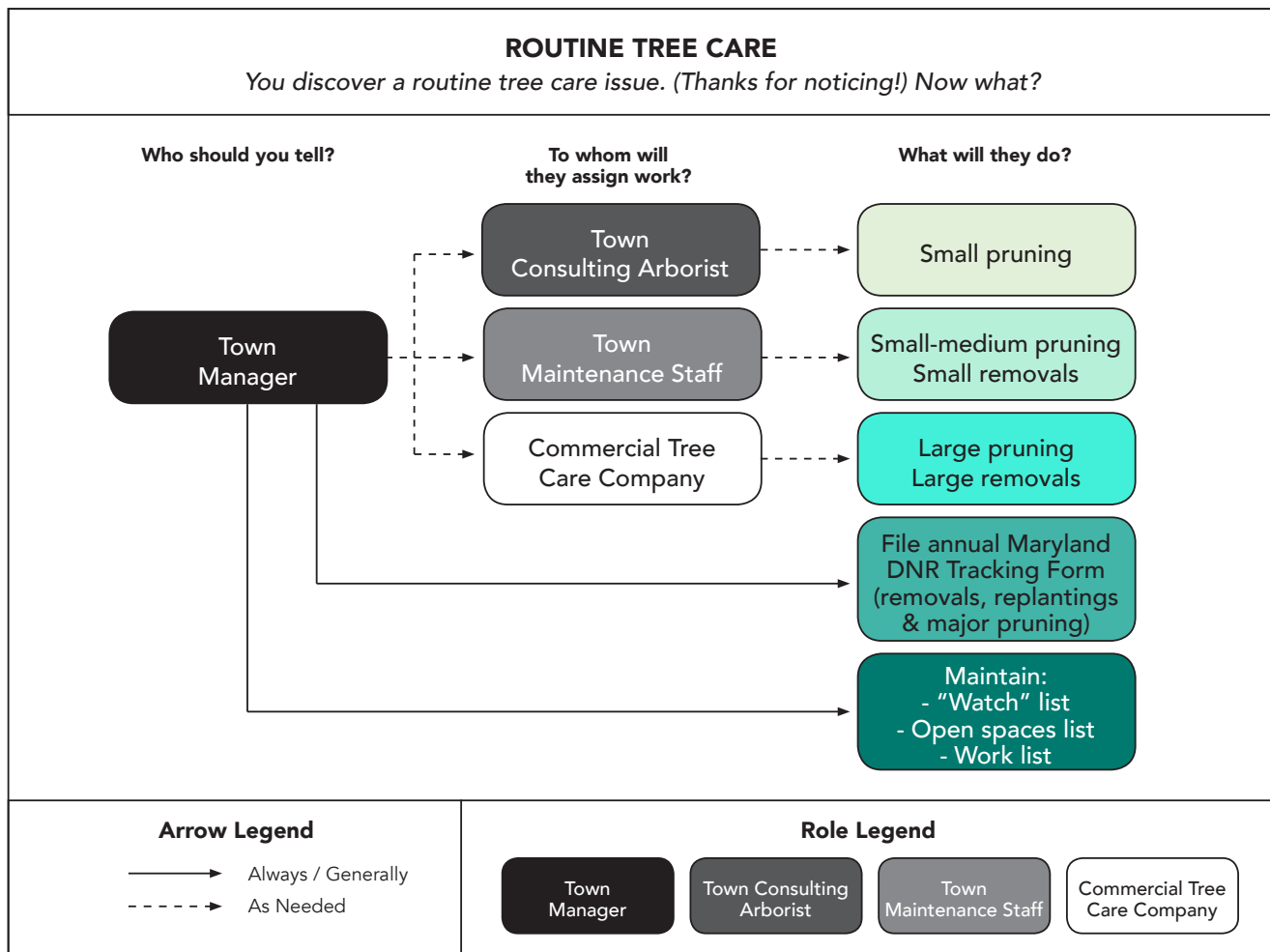


Figure 3: Routine Tree Care Flow Chart

3.3 Tree Removal

Trees that become ill or die may pose a safety hazard or other concern. The tree removal phase allows for tree remediation or removal according to:

Formal tree condition reports

Trees at high risk will be addressed by removal or risk mitigation (through pruning/cabling, etc.) within 3 months to a year depending on their risk rating. Extreme risk trees will be addressed as promptly as feasible. For routine removals, trees identified for removal will be posted with a notice by Town Maintenance personnel at the direction of the Town Manager. To the extent possible for non-emergency removals, property owners adjacent to the tree will be notified at reasonable time prior to a tree removal. In the case of extreme risk trees that pose an imminent threat, no notice is needed. (See CAP Part I, p. 23 for further detail on risk assessments and ratings.)

Elm disease ordinance

Montgomery County's **Elm Disease** ordinance (18-3) applies to Garrett Park, allowing the county forester to inspect and remove any trees with Dutch elm disease (http://montgomeryco-md.elaws.us/code/coor_ptii_ch18_sec18-4).

The Town will be proactive in removing affected elms immediately, as there are several old specimens in town to protect. Sanitation measure such as this have proven highly effective in limiting spread of Dutch Elm Disease.

Tree location relative to property lines

This section addresses those situations where a tree straddles the property line between Town r-o-w and an adjacent privately-owned property. If it is determined that the tree needs to be removed, the Town Manager will consult with the property owner and the Town Council liaison to reach an equitable resolution of the respective shares of the cost of removal. The Town will handle all logistical aspects of the removal (pursuant to the Roadside Tree Permit (RTP) "blanket permit") and will arrange for the removal once the adjacent property owner has remitted the agreed-upon portion of the cost of removal. The process of establishing the proportional division of cost may be addressed in more detail in regulations that, among the factors, will consider:

- a) Location of the base of the tree exclusive of buttress roots (i.e., what proportion of the tree trunk lies on Town r-o-w and what proportion is on the adjacent property);
- b) Whether the Town has performed any maintenance (e.g., pruning) on the tree in the past; and
- c) Overall size of the tree, including whether any limbs extend over Town roadway.

3.4 Tree Replacement

To maintain a healthy and beautiful Arboretum, trees that are removed will be replaced whenever possible. Trees will be replaced by the Town solely at the Town's discretion, within reasonable limits of the Arboretum budget and the Town's ability to maintain.

4. Record-Keeping, Reporting and Database Maintenance

The Town commits to the maintenance of accurate, up-to-date, and pertinent records on its accessioned (recorded) living tree and shrub collections. The Town Consulting Arborist holds primary responsibility for documenting additions, prunings, and removals. Because these records are required to renew the DNR blanket permit each year, the Town Office will serve as the central collection point and official repository of the comprehensive list of significant pruning, removals, and new plantings.

Excel Inventory

The Town, Arboretum Committee, and Town Consulting Arborist will share the Read-only Excel inventory spreadsheet, so any tree-related task will be recorded on one document. Entry of changes or additions in the inventory is the sole responsibility of the Town Consulting Arborist. The inventory could be put in cloud-based storage so that there is only one version of the document.

ArcGIS Map

The ArcGIS Map completed in Winter of 2018 maps all trees included in the 2018 Tree Inventory. It is accessible on any internet-capable device by inputting the URL <https://arcg.is/re1SL> into any web browser. The ArcGIS map is generated through ArcGIS Online using a Natural Resources Design, Inc. (NRD) account. Should the Town of Garrett Park wish to maintain the map internally, the Town would need to set up an ArcGIS account and build a new map using the Tree Inventory Spreadsheet, or alternately to transfer the data to another compatible system, (i.e. Google Maps.) Nevertheless, it is understood and agreed by NRD that the Town of Garrett Park owns the ArcGIS data. For instructions on using the map, see Appendix IV.

Documentation

Document all significant tree maintenance and assessment tasks in the Inventory so that it is kept current (significant maintenance does not include routine tasks such as watering or mulching).

Any new trees planted will be tagged and entered into the Inventory within 2 months. New plantings should include information about the source and cost of the plant, size at planting, date planted, tag number, and condition. Any additional notes such as specimen or site conditions, or location details (e.g., “to the R of the drive”) are helpful.

Reporting

The Town’s blanket RTP (MD DNR Roadside Tree Permit) requires that the Town report annually to DNR all the relevant tree care tasks undertaken pursuant to the RTP, in a format specified by DNR. To facilitate the preparation and submission of the required annual report, the Town Manager shall maintain ongoing lists of all tree care tasks accomplished by the Town pursuant to the RTP: removals, all replacements and other tree plantings, and significant pruning.

Tree Tags

- Tag any new trees with round aluminum **numbered tags** nailed to the trunk with an aluminum nail. Pre-numbered tags can be ordered from Forestry Suppliers, Inc. Note that every tree must have a unique number.
- The new tree location can be uploaded to the online ArcGIS database.
- For small trees, wire the tag to a branch with galvanized metal wire.
- It is important to loosen nails and wires over time to allow room for each tree to grow. This should be specified as part of field inspections leading to informal condition reports.

Additional notes:

- a) A subset of trees has a rectangular embossed aluminum tag with additional information about the tree. These tags are 10-20 years old and have proven difficult to maintain. Rectangular name tags were wired onto branches and could potentially girdle the branches if the wires are not loosened as the tree grows. One solution to this is to attach the old tags, with their greater amount of information, together with the round numbered tags, using the same nail.
- b) For the 2018 Tree Inventory, trees were tagged using round aluminum numbered tags. These were attached to each tree with an aluminum nail. Where it was deemed necessary (typically with small trees), tags were wired to a branch of the tree. Each tree has a unique tree tag number, referenced in the Tree Inventory as the Tree ID number. Inventory data for each tree was taken at the time of tagging and entered into Urban Forest Metrix software.

5. Education and Outreach

The Arboretum Committee holds primary responsibility for developing and encouraging education and outreach programs related to the Arboretum.

- a. **New tree selections** - Educate residents about the need for diverse taxa in their home landscapes, how stormwater management affects trees, and what effects climate change will have on the health of their home landscapes. The Town, Arboretum Committee, and Town Consulting Arborist work together to educate the residents on the need for a complete and diverse tree population, and why this goal is so important.
- b. **Tree care issues** - Educate the public about tree care issues, including tree pests and diseases and their management. The Arboretum Committee will serve as the lead for educating residents of Garrett Park about tree-related topics and concerns. This includes a periodic column in the *Bugle* newsletter, continued tree walks (but with an additional focus on urban forest benefits and best management practices), and talks given by the Town Consulting Arborist and other experts.
- c. **Resources** - The Arboretum Committee should also ensure that there are up-to-date resources in the library or on the Town website, so that residents may easily access current, research-based information about trees and the landscape. Montgomery County Master Gardeners run Plant Clinics on a regular basis: <http://extension.umd.edu//mg/locations/plant-clinics>
- d. **Programming** - The Arboretum Committee offers tree walks and programs on trees. They also publish articles in the town newsletter. Other groups that could be involved in educational programs

include garden clubs, Maryland Master Gardeners and Master Naturalists, Montgomery County Weed Warriors, the Maryland Native Plant Society, and the Montgomery Bird Club.

e. **Posting the Database (or the ArcGIS link) on the Town Web Site**

f. **Additional suggestions** for outreach include:

- Developing self-guided tree walks
 - http://www.lakecoleridgenz.info/uploads/9/0/4/8/90486139/tree_trail_-_hart_arboretum_self-guided_walk_website_version.pdf
 - <https://www.du.edu/arboretum/media/documents/treewalkguideprint2014.pdf>
- Publishing a list of recommended trees and shrubs for planting
- Holding an Arbor Day event at the Elementary School
- Hosting Weed Warrior invasive plant removal workshops
<https://www.montgomeryparks.org/caring-for-our-parks/natural-spaces/weed-warriors/>

Appendix

I. Glossary

Accession: A new item (in this case a tree) added to a collection, or the act of adding a new item to a collection.

ANSI A300 Standards: American National Standards Institute standards for the Tree Care Industry Association. Consensus performance standards based on current research and sound practice for writing specifications to manage trees, shrubs, and other woody plants.

Canopy tree: A tree that will, when mature, have a medium to large-sized canopy, both in height and canopy spread. These may be commonly referred to as “shade trees”. Typical canopy tree species include oaks, maples, tulip trees. Non-canopy trees attain a smaller stature, and may be commonly thought of as “flowering” trees, though many smaller-growing trees have insignificant flowers. Examples are dogwoods, flowering cherries, and Japanese maples.

Certified Arborist: identifies professional arborists who have a minimum of three years' full-time experience working in the professional tree care industry and who have passed an extensive examination. Certification is issued by the ISA (International Society of Arboriculture).

Critical Root Zone (CRZ): Typically, the Critical Root Zone of a tree is a radius from the trunk of the tree out at a distance that is 1' radius for each 1 to 1.5" of diameter (DBH). The greater the area of the CRZ that is protected during construction, the greater the chance the tree has to survive the construction. As general rule, no more than 1/3rd of the CRZ should be impacted during a construction project.

Cultivar: A plant variety that has been produced in cultivation by selective breeding, or has been found as a natural variant. For woody plants, a cultivar is usually a distinct genetic selection, and every individual within the cultivar is genetically identical. Cultivars are selected for desirable shape or size, disease resistance, superior flowers or foliage, fruitlessness, or a number of other factors.

DBH (diameter at breast height): The diameter of trees is typically measured at the standard height of 54" above the ground. There are other variations, but basically, DBH indicates diameter of the tree's trunk.

Deaccession: Removal of an item from a collection. In the case of a tree planted at an Arboretum, the plant may have died or been removed. The database will still contain a record of the plant even after deaccessioning, for historical purposes.

Ecoregion: A major ecosystem defined by distinctive geography and receiving uniform solar radiation and moisture.

Ecosystem services: An ecosystem service is any positive benefit that ecosystems provide to people. Forests provision us with food, fuel, and clean water. They regulate climate, store carbon, and clean air. They support natural services such as photosynthesis, the creation of soil, and nutrient and water cycling.

Fragmentation: Division of a once contiguous land use type into pieces separated by different land use types.

Intensively managed trees: Those trees in which the Town plays an important role in managing—both the street r-o-w trees, as well as those trees growing in a natural area like a park, but the park contains a feature such as a ball field or playground that elevates the need for the Town to actively manage the surrounding trees for risk. For example, a large dead limb would be removed if it were an intensively managed tree, but allowed to rot and fall if it were a natural area tree.

Invasive plant: Plants that have been introduced outside of their native range that establish and spread rapidly. Invasive plants often cause harm to native species, communities, or ecosystems, or to human health or activities.

MD Roadside Tree Expert: An individual representing a governmental agency who: a) Is designated to supervise that government's roadside tree planting and maintenance operations; b) passed the Forest Service's examination for Roadside Tree Care Experts; and c) Has been approved by the Forest Service as qualified to supervise that government's tree care program.

Native plant: A plant that lives or grows naturally in a particular region without direct or indirect human intervention.

Natural area trees: Trees that are growing in the woodlands owned by the Town, such as Porcupine Woods. These trees are growing where there are few, if any, high-value targets, so the burden of care for these trees is lower.

Pesticides: Pesticides include herbicides (weed killers), insecticides, and fungicides. Pesticides can be derived from organic sources as well as inorganic sources. Most pesticides are regulated by the EPA and are assigned a label that outlines the use and restrictions of the product. Some pesticides are considered of low enough toxicity that they are not regulated by the EPA and are given no pesticide label.

Publicly owned trees: Trees that are either in the Town r-o-w, on parcels of land that the Town owns (e.g. Yeandle property), or that are in publicly owned areas or parks.

Salts: Many of the products used to make roadways safe during ice and snow events are a form of salt. Salts, when used in large amounts, run off the roadways and onto the nearby landscape. At high concentrations, salt causes a reverse flow of water near roots, and water is sucked out of tree roots into the soil.

Species: The primary taxonomic unit that denotes a group of individuals that can exchange genes and interbreed.

Stormwater: Rainwater that strikes an impervious surface and runs off – often to the local storm sewer system. In addition, if a storm event is of a high intensity, water cannot infiltrate soil and runs off the soil surface, possibly causing erosion and further stressing the stormwater system.

Structural value of trees: The cost of replacing a tree with a similar size and species.

Taxon (taxa pl.): A group of one or more populations of an organism, or organisms seen by taxonomists to form a unit.

Tree alley: A path or road with a line of trees or large shrubs running along each side.

Tree Lawns: The growing space between a street curb and the sidewalk.

Urban forest: The urban forest is the sum total of all trees that are growing in the Town of Garrett Park, both privately owned and publicly owned.

Urban Forest Tree Canopy Coverage: The percent of land of a jurisdiction or area that is covered by tree canopy (leaves and branches). Montgomery County has a webpage to calculate a municipality's tree canopy coverage located at: <http://montgomeryplanning.org/planning/environment/forest-conservation-and-trees/tree-canopy-analysis/tree-canopy-explorer/>

II. Tree Dedication

To facilitate the dedication of trees on Town property, the Town Manager will develop and administer rules for dedication of both existing and new trees. The Arboretum Committee will submit recommendations and the Town Manager will draft and post on the Town website a set of policies and procedures conditioned on at least the following requisites:



1. The dedicatory tree can be an existing tree or the acquisition of a new tree, either on Town r-o-w or on other Town-owned property.
2. The regulations shall include requirements that donors who wish to dedicate a tree work with the Town Manager, Town Consulting Arborist and Arboretum Committee to identify an appropriate location and species, and that no tree may be dedicated or planted without the written consent of the Town.
3. The requirements shall also specify (i) any parameters or limitations on the Town's maintenance and replacement of dedicatory trees; (ii) methods for notation of the dedication (e.g., tag, plaque, etc.) and permissible content of such notations; (iii) that dedications be funded by a direct (cash or check) payment; (iv) that indirect donations such as gift certificates are prohibited; and (v) donation amounts.
4. Funding of any dedicatory tree shall be the sole responsibility of the donor.
5. Donation amounts will be set from time to time by the Town Manager, taking into account the cost of a new tree, planting, overhead, a set fee for tree maintenance, and any other factors deemed relevant by the Town Manager.


III. Streets with Featured Tree Species

<u>Street</u>	<u>Tree</u>	<u>Notes</u>
10900 block of Kenilworth, both blocks of Waverly; westerly portion of 11000 block of Montrose Avenue	Sugar Maples	Select diverse cultivars, focusing on heat resistant varieties.
Weymouth St.; easterly portion of 11000 block of Montrose Ave.	Ginkgoes	Male named clones only
Shelley Court	Cherry trees	Several Shelley Court trees are reaching the end of their lifespan; to maintain the landscape design of the street, as the old trees die replace them with other cherry tree cultivars. Remove escaped seedlings that invade adjacent areas
Argyle Ave.	Redbuds	Plant a wide range of cultivars for aesthetic and educational purposes
10910 through 10914 Clermont Avenue (both sides) and 4501-4502 Clermont Place	American elm cvs.	A variety of Dutch elm disease-resistant cultivars have been planted near this intersection, to replicate elms removed in this area 1980-2005
Near intersection of Oxford Street and Montrose Avenue	Red maple cvs.	
10800 block of Kenilworth Avenue	'Beijing Gold' tree lilac; American elm cvs.	West side of street: <i>Syringa pекinensis</i> 'Zhang Zhiming'; east side: disease-resistant American elm cultivars.
Cambria Avenue, south side, adjacent and near pool parking lot and 4510 Cambria	Compound- leafed trees	Unusual species planted in early years of the Arboretum to key off pre-existing locust and black walnut
10900 block of Montrose Avenue (through 10919 and again at 10934-10938 and Montrose side of 4700 Waverly)	Willow oaks	<i>Quercus phellos</i> cv.; consider completing allee between 10919-10937
10800 block of Keswick Street, west side	Plane trees	To replace allee of tulip trees removed 2011-2017

IV. Using the ArcGIS Map

To access the ArcGIS map, please click here: <https://arcg.is/re1SL>

On a computer, select the “Details” tab, then select the  icon. The list of layers “Town Limits” or “Garrett Park Tree Inventory” will appear. Check or uncheck the desired layers. By clicking on the text “Garrett Park Tree Inventory”, a row of icons appears immediately below the text, followed by a map key. Click the icon ; a table with all tree data embedded in the map will appear. Shown in the map key, the top 10 most populous species are individually color coded, and all other species are shaded the same color. The symbol for each tree is sized according the DBH size group of the tree. By zooming into the map, Tree ID numbers will begin to appear on the tree icons. Select a tree to view a pop-up window containing the species and DBH data for the tree.

On a Tablet or Smartphone, drag the map with a finger or stylus and zoom in or out with the + or – buttons. Select the icon  to view the map layers. Activate or deactivate the layers by clicking the eye symbol to the left of the layer name. To the right of each layer name, the same icon as above will reappear; select the icon to the right of “Garrett Park Town Trees” to display the map key. As on a computer, the symbol of each tree is based on species frequency and DBH size.

V. Roadside Tree Permit



ROADSIDE TREE PERMIT- BLANKET (RTB):

2019-0452

Name: Town of Garrett Park

Address: P.O. Box 84, 4600 Waverly Avenue, Garrett Park MD, 20896

The Applicant is a Public Agency: Yes

Applicant Type: A governmental entity possessing an easement for the public road right-of-way in which the tree(s) are located

Specific Crew Identifier: David Gregg's Tree Service - David Gregg

Is hereby granted a permit to perform tree care in the following counties:

Montgomery

The proposed tree care will: Improve or prevent a deteriorated tree condition

Described as follows:

PARTICULAR TYPES OF TREE CARE PERMITTED:

Tree Removal (Nat Res Art § 5-406), Tree Pruning (COMAR 08.07.02.07.A.), Tree Planting (COMAR 08.07.02.09), Protection of tree roots (COMAR 08.07.02.07.D.),

LIMITATIONS OR CONDITIONS ON THE TREE CARE OR PLANTING:

All work done under this permit shall be conducted according to the "2019 Terms and Conditions".

EXCLUDING ANY TREE NOT WITHIN THE RIGHT-OF-WAY OF A PUBLIC HIGHWAY

Provided, that the work authorized by this permit shall not begin until the Forest Warden designated by the Director as his agent shall be present and give their sanction to the means employed, and that the work may be suspended by order of the Forest Warden upon any failure or refusal of the operators to perform it in accordance with the rules and regulations of the Department of Natural Resources - Forest Service. This permit is granted under authority of the Annotated Code of Maryland, 1973, under Title 5, Subtitle 406, which places the care and protection of all trees growing within the right-of-way of any public road or between the curb and property lines of any street in any incorporated town in Maryland under the Department of Natural Resources - Forest Service. This permit, in no way cancels or contravenes the right of property owners to restrict or prevent the trimming or cutting of trees upon their own properties, except that trees covered by this permit may not be treated in any way other than as herein specified.

Authorized By: Robert Ericson

Title: Urban & Community Forester

Address: 2 South Bond Street, Bel Air, MD., MD

Issue Date: 01/03/2019

LTE performing the work: David T. Gregg (License #: 412)

THIS PERMIT IS AN ANNUAL PERMIT



VI. Roadside Tree Permit – Terms and Conditions

Maryland Department of Natural Resources Forest Service

ROADSIDE TREE CARE

Blanket Permit for Public Agency 2019

TERMS AND CONDITIONS

The following conditions apply to all Roadside Tree Care Blanket permits issued by the Maryland Department of Natural Resources - Forest Service (Forest Service) to **Public Agencies** (RTPA):

1. Applicability

- 1.1 This permit is issued pursuant to Natural Resources Article 5-401 et seq. and the Code of Maryland Regulations (COMAR) .08.07.02 to assure the care and protection of all Roadside Trees. A Roadside Tree is a plant that has a woody stem or trunk that grows all, or in part, within the right of way of a public road (that land the title for which, or an easement for which, is held by the State, county or a municipality for use as a public road). Any treatment which would affect the health or growth of such a tree is subject to this permit.
- 1.2 This permit authorizes treatment of only those trees growing within a right-of-way of a public road. It neither affects, supersedes, nor negates the rights of property owners to protect or prevent the trimming of trees growing from land within the boundaries of their property.

2. Permit issuance and use

- 1.3 The requirements, representations and certified information supplied by the applicant in the Application for Roadside Tree Permit, which is attached hereto, are expressly incorporated and made a part of this permit.
- 1.4 A copy of the permit issued to a specific Roadside Tree Care Expert, including any amendments, shall be in the possession of the crew performing the work under the permit and be available for display at all times.

3. Supervision

- 2.1 The work of a tree care crew shall be supervised by a roadside tree care expert or a licensed tree care expert.
- 2.2 The Forest Service may give general or direct supervision to the work covered by this permit. Work performed shall be subject to inspection. Any tree conditions that are unsatisfactory to the Forest Service shall be corrected by the tree care crew within 48 hours of notification by the Forest Service.
- 2.3 Any questions or issues regarding the terms and conditions of this permit or the requirements of COMAR 08.07.02 or Natural Resources Article 5-401 et seq. shall be directed to the Forest Service and resolved prior to performing the work.

4. Tree Care Conditions

- 2.4 All work shall conform to the Roadside Tree Care Standards set forth in COMAR 08.07.02. In addition to those Standards, and pursuant to COMAR 08.07.02.05.G, roadside tree care shall satisfy the following conditions.
- 2.5 The primary objective of this roadside tree blanket permit is maintaining the safety and passability of public road rights-of-way. This objective shall be accomplished in the manner most beneficial to the health of the tree.
- 2.6 Roadside tree maintenance pruning shall consist of one or more of the following pruning techniques:
 - 2.6.1 *Crown cleaning*: Cleaning shall consist of selective pruning to remove one or more of the following parts: dead, diseased, and/or broken branches; and
 - 2.6.2 *Crown reduction*: Reduction shall consist of selective pruning to decrease the height and/or spread. Consideration shall be given to the ability of a species to tolerate this type of pruning.
 - 2.6.3 *Crown raising*: Raising shall consist of selective pruning to provide vertical clearance.
- 2.7 There is no minimum or maximum diameter limitation on the branches to be removed.
- 2.8 Branches shall be removed by removal of a lateral branch at its point of origin or the shortening of a branch or stem by cutting to a live lateral branch at least 1/3 the diameter of the severed branch.
- 2.9 A heading cut shall not be used. A heading cut consists of cutting a currently growing or one-year-old shoot back to a bud, or cutting an older branch or stem back to a stub or lateral branch not sufficiently large enough to assume the terminal role, that is, less than 1/3 the diameter of the severed branch.
- 2.10 When removing a live lateral branch at its point of origin on the trunk or parent limb, the final cut shall be made in branch tissue close to the trunk or parent limb, without cutting into the

- branch bark ridge or collar, or leaving a stub.
- 2.11 When removing a dead lateral branch, the final cut shall be made just outside the collar of live tissue. If the collar has grown out along the branch stub, only the dead stub should be removed. The live collar shall remain intact and uninjured.
- 2.12 When removing a leader or length of a branch, the angle of the cut shall bisect the angle between the branch bark ridge and an imaginary line perpendicular to the leader or the branch being removed.
- 2.13 When cutting a branch back to a lateral, not more than one-fourth of its leaf surface shall be removed. The lateral remaining shall be large enough to assume the terminal role.
- 2.14 When removing a branch with a narrow branch attachment, the final cut shall be made from the bottom of the branch up to prevent damage to the parent limb.
- 2.15 Not more than one-fourth of the foliage on a mature tree shall be removed within a growing season.
- 2.16 Tree branches shall be removed in such a manner so as not to cause damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be precut to avoid splitting or tearing of the bark. Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.
- 2.17 Cut limbs shall be removed from the crown upon completion of the pruning, or at times when the tree will be left unattended, or at the end of the work day.
- 2.18 Except when authorized by the Forest Service or when the tree is being removed, climbing hooks or spurs are prohibited.

5. Criteria for approving tree removal

- 2.19 The Roadside Tree Care Expert may issue a permit for tree removal if the proposed tree care will meet at least one of the following conditions:
 - 2.19.1 Eliminate a hazard to property, public safety, or health;
 - 2.19.2 Improve or prevent a deteriorated tree condition; or
 - 2.19.3 Improve the general aesthetic appearance of the right-of-way.
- 2.20 Elimination of a hazard to property
 - 2.20.1 Elimination of a hazard to property shall include any tree:
 - 2.20.1.1 - Which is dead;
 - 2.20.1.2 - Which has caused previous damage to hardscape (sidewalk, lead walk, driveway, etc.) or other improvements, resulting in the need for repair (documentation of repair [estimate, invoice, etc.] shall be provided);
 - 2.20.1.3 - For which previous damage to water or sewer has occurred, resulting in the need for repair (documentation of repair [estimate, invoice, etc.] shall be provided); or
 - 2.20.1.4 - Which exhibits severe surface rooting on a private lawn.
- 2.21 Elimination of a hazard to public safety
 - 2.21.1 Elimination of a hazard to public safety shall include any tree:
 - 2.21.1.1 - Which is dead;
 - 2.21.1.2 - Is in a condition that, in the opinion of the reviewer, poses a significant risk of failure and subsequent impact to an area used by people;
 - 2.21.1.3 - Which obscures traffic control devices such that the obstruction cannot be mitigated by pruning according to ANSI A300 standards; or
 - 2.21.1.4 - Which obscures sight distance such that pruning according to ANSI A300 standards cannot mitigate the obstruction.
- 2.22 Elimination of a hazard to health
 - 2.22.1 Elimination of a hazard to health shall include any tree:
 - 2.22.1.1 - Which poses a specific health risk to a specific person(s) identified in the application.
 - 2.22.1.2 This may include:
 - 2.22.1.2.1 Documented severe allergies to specific tree types, flowers, or fruits
 - 2.22.1.2.2 Asthmatic reactions related to high Volatile Organic Compound-emitting trees
 - 2.22.1.3 This does not include:
 - 2.22.1.3.1 The normal processes of trees (flowering, fruiting, leaf drop, etc.) in general terms, without a documented or demonstrated health impact.
- 2.23 Improvement or prevention of a deteriorated tree condition
 - 2.23.1 Improvement or prevention of a deteriorated tree condition shall include any tree:
 - 2.23.1.1 - Which is dead;
 - 2.23.1.2 - Which is recognized by the Forest Service as an invasive exotic plant; or
 - 2.23.1.3 - Which is injured, decaying, declining, mechanically unstable, or in any other similar condition such that, in the opinion of the reviewer, the site would be best served by removal and replacement.

- 2.24 Improvement of the general aesthetic appearance of the right-of-way
- 2.24.1 Improvement of the general aesthetic appearance of the right-of-way shall include any tree:
 - 2.24.1.1 - Which is dead; or
 - 2.24.1.2 - Which is declining, unsightly, of poor form or structure, is inappropriate for the site, or in any other similar condition such that, in the opinion of the reviewer, the site would be best served by removal and replacement.
- 2.25 Replanting required
- 2.25.1 Unless exempted by the Forest Service, if a tree is removed it shall be followed by replanting of a species on the recommended tree list, or other tree as determined by the reviewer, that is suitable to the location. Replanting shall not be required if the request for roadside tree permit pertains to a dead tree.
- 2.25.2 All nursery stock used in required planting done under this permit must meet ANSI Z60.1 - 2004 standards as found in the American Standard for Nursery Stock published by the American Nursery and Landscape Association.
- 2.26 Reporting required
- 2.26.1 The Roadside Tree Care Expert shall, at the end of the permit term, submit a report listing:
 - 2.26.1.1 The number of tree removed under the RTPA
 - 2.26.1.2 The number of trees planted under the RTPA
 - 2.26.1.3 The number of trees pruned under the RTPA.
- 2.26.2 Failure to comply may result in denial of a new RTPA for the following calendar year

6. Tree clearance for overhead facilities

- 6.1. Pursuant to COMAR 08.07.02.07.B (1) (a), the Forest Service provides the following directions for the determination of sufficient clearance for overhead facilities.
- 6.2. All overhead facility clearance activity shall be performed in accordance with the requirements of ANSI A300 (Part 1) – 2017 pruning standards and ANSI Z133 - 2012, Section 4-Electrical Hazards
 - 6.2.1 Not more than one-fourth of the foliage on a mature tree shall be removed within a growing season.
 - 6.2.2 Except when authorized by the Forest Service or when the tree is being removed, climbing hooks or spurs are prohibited.
- 6.3. Clearance distances described below apply only to facilities owned or managed by the permittee or their authorized agent.
- 6.4. Clearance from overhead facilities shall:
 - 6.4.1 Use directional pruning to prune unwanted branches that interfere with utility lines back to lateral branches or parent stems. These lateral branches should be at least 1/3 the diameter of the severed branch. This will direct tree growth away from the utility line;
 - 6.4.2 Take into account the health of the tree;
- 6.5. All clearances shall be obtained as follows:
 - 6.5.1 Locate the terminal bud of the branch to be pruned;
 - 6.5.2 Determine the minimum amount of the branch to be pruned.
 - 6.5.3 If the limb can be pruned at that location in accordance with the requirements of this section, make the pruning cut.
 - 6.5.4 If the limb cannot be pruned at that location in accordance with the requirements of this section, proceed away from the terminal bud and towards the trunk until a lateral branch that meets the requirements of this section can be located. If no such lateral branch can be located, or pruning at the appropriate lateral would involve removal of more than 50% of the biomass of the branch, remove the branch at the base (parent limb or trunk).

7. Protection of tree roots for underground facilities

- 7.1 The permittee shall take all necessary measures to protect roadside trees from damage during construction and associated activities. Damage sustained by a tree, such as broken limbs, roots, or scarred trunks, including compaction damage, shall be repaired by the permittee.
- 7.2 For trees under 6 inches in diameter as measured 4 ½ feet above average ground level, all machine digging shall stop at the dripline of the tree, or where specified by the Forest Service.
- 7.3 For trees over 6 inches in diameter as measured 4 ½ feet above the average ground level, all machine digging shall stop when roots of 1 inch or more in diameter are encountered, or when specified by the Forest Service.
- 7.4 When an underground project encounters the roots of a roadside tree, the permittee shall tunnel or bore under the tree or modify the project to protect the tree's roots.
- 7.5 Roots 1" or more in diameter may not be cut without approval of the Forest Service.

- 7.6 Roots 1" in diameter or larger, damaged during construction, shall be sawed off close to the tree side of the ditch. Clean cuts shall be made at all times.
- 7.7 At least 24 inches of undisturbed earth shall remain over the tunnel or bore, or above other type of installation.

8. Roadside tree planting

- 7.1 Keep the root ball well watered and keep the tree in a shaded place until you are ready to plant.
- 7.2 Expose the trunk flare on each tree before the planting site is dug so that the depth of the planting site can be properly measured. The trunk flare is the point where roots begin to branch from the trunk. (The top of the root ball is not always the trunk flare.)
- 7.3 Remove burlap from immediate trunk area of tree. Pull back excess soil around trunk of tree to locate trunk flare. Measure the height from the base of the trunk flare to the bottom of the root ball. Dig to the depth of the trunk flare.
- 7.4 The planting hole shall be at least three times the width of the rootball and as deep, or slightly less than as deep, as the root ball.
- 7.5 Slope the sides of the hole and break up compacted soil to make sure there are no glazed sides. To eliminate settling, the bottom of hole should remain undisturbed to give solid support to root ball.
- 7.6 Handle the trees carefully, lifting them by the root ball or container and not by the stem. Balance the tree upright in the center of the planting space. Do not plant too deep. Trunk flare and top of root ball should be at or slightly above grade.
- 7.7 Remove the burlap, string, plastic, tree wraps, and tags. You may leave burlap on the bottom of ball by folding it down below the ground level to avoid wicking.
- 7.8 Remove the wire baskets. If the root ball is too loose to move it into the hole without breaking, place the tree into the hole with the basket on and then cut away as much of the wire as possible so that the remaining wire is removed from all sides of the root ball or at least 24 inches below the finished grade level, whichever is less.
- 7.9 For containerized material, remove the container before planting. Separate and cut the roots, especially any girdling or circling roots.
- 7.10 Backfill the hole with the same soil. Soil amendments are not necessary unless planning in construction rubble or poor soils. Water as you backfill to firmly set the tree. Make sure there are no air pockets and the trunk is vertical.
- 7.11 Mulch around the tree to aid in moisture retention, moderate soil temperature, reduce competition from weeds and grass, and help keep string trimmers away from the trunk. The mulch layer shall be of composted material and not exceed two to four inches in depth. Mulch should not be placed against the trunk (at least three inches from the trunk) as the moisture and heat may cause the root collar to rot.
- 7.12 Prune according to ANSI standards only. Prune only dead or broken branches after planting. Do NOT prune the crown to balance it with remaining root stock. If the tree is an evergreen, do not prune because the tree has no latent buds.
- 7.13 Do not fertilize the tree at the time of planting.
- 7.14 If the tree must be staked, stake and brace the tree by using wide, belt-like strapping attached to two sturdy stakes. Do not use rope or wire through a hose. Support the tree but allow it to move or sway gently. Remove staking materials within one year of planting.

9. Compliance; suspension or revocation

- 7.15 Notwithstanding the tree care practices or policies of persons authorized to request a roadside tree care permit pursuant to COMAR 08.07.02.05., roadside tree care maintenance shall be performed in accordance with the terms and conditions of this permit and the requirements of COMAR 08.07.02 and Natural Resources Article 5-401 et seq. (collectively, the Roadside Tree Care Law).
- 7.16 This permit may be suspended or revoked upon failure of the permittee to comply with the conditions of this permit or a provision of the Roadside Tree Care Law.

VII. Ordinance Excerpts

Section 714. Specifications for Street Construction

The construction of all roads shall conform to the minimum requirement standards and specifications established by Montgomery County design standards and Montgomery County standard specifications, except as herein provided.

(a) Where there is a 50 feet dedicated right-of-way, the Council may, in its discretion, authorize the construction of a paved street less than 26 feet wide, and may authorize 6 inches of compacted bank gravel in place of eight inches of compacted bank gravel as required by the Montgomery County Code. The width of the street shall, unless otherwise authorized, measure not less than 26 feet, measuring from face of one curb to the face of the curb directly across the street, and shall include standard concrete curb and gutters, as specified in Montgomery County Road Construction Code, Section 49 of the 1984 Montgomery County Code as amended and shall conform to Montgomery County Road Construction Code regarding the type of material used and method of construction.

(b) All grading shall be done in accordance with plans and profiles approved by the Council, and the Montgomery County Road Construction Code as it appears in the 1984 Montgomery County Code, as amended.

(c) Whenever drainage structures are required for any road, such drainage structures shall be installed or constructed as are found by the Council to be necessary or appropriate.

Section 715. Landscaping, Maintenance and Use of Planting Strip of Town Streets

(a) Residents of the Town whose property abuts Town streets dedicated for public use may landscape and maintain the unpaved street areas abutting their properties in accordance with the following standards and regulations:

(1) Landscaping may include the planting of grass, groundcover, flowers, and shrubs.

(2) On corner lots, no shrubs or planting of any kind exceeding 3 feet in height when fully grown shall be planted within 20 feet of the return of the curb line on said corner.

(3) In no case shall the unpaved street area of any Town street be landscaped in any manner that will

inhibit or impede pedestrian use of a 5 foot wide walkway, sidewalk or pathway; provided, however, that this restriction shall not preclude the planting of grass or the laying of a brick walk or flagstone in such area.

(b) The planting, maintenance and removal of trees in the unpaved street areas dedicated to public use shall be the responsibility of the Council and trees may be planted in or removed from such an area only with the explicit consent of the Council.

(c) No person who landscapes or otherwise maintains an unpaved street area dedicated to public use abutting his property shall be entitled to any right, title or interest in said dedicated right-of-way nor to any remuneration from the Town because of monies expended for landscaping, and, in the event it becomes necessary to widen or otherwise improve any Town street dedicated to public use or to construct paths or sidewalks and thus to remove or destroy the trees, shrubs or other landscaping within the said area, no compensation shall be paid by the Town for such relocation or destruction of existing landscaping.

(d) Nothing in this section shall be construed as permitting, without the specific consent of the Council, the construction of buildings, fences or facilities on the unpaved street area of any Town street or the use of any such area as a public play or recreation area.

(e) Waiver. The Council may waive or grant variances from the strict application of this Section, subject to such conditions as the Council may impose, when, because of the exceptional shape of specific parcels of land or because of exceptional topographical conditions or other extraordinary situations or conditions affecting specific parcels of property, the strict application of these regulations would result in a peculiar and unusual practical difficulty to or exceptional or undue hardship upon the owner of any specific parcel.

Section 716. Preservation of Trees and Shrubbery

(a) No person shall break, wound, destroy, or in any manner injure any of the trees or shrubbery now planted and set or which may hereafter be planted and set, on any of the streets, parks, or public recreation areas in the Town.

(b) If any person (resident or others) shall receive from the Department of Natural Resources a permit to remove or prune a tree in the unpaved street area dedicated to public use, said person shall notify the Clerk-Treasurer, ten (10) days before work begins, by sending a copy of the permit of the Town office. Replacement must be on the Town's approved list, must be done at resident's own expense, and must be within six months after the tree is removed. Failure to comply with this Section shall be an infraction, punishable by a fine of fifty dollars (\$50).

Section 717. Garrett Park Arboretum and Arboretum Committee

(a) Statement of Policy

(1) History. The plan of the Town of Garrett Park was designed by William Saunders in the 19th Century to reflect the Town's sylvan setting and preserve existing woodland. Over the years, the Town has expressly recognized its distinctive arboreal resources and has taken steps to protect those resources. One of the earliest laws of the Town -- Ordinance #4, enacted May 27, 1897 -- concerns preservation of trees and shrubbery. More recently, the Town purchased land that was threatened by excessive development and established the Town as an Arboretum, including approval of a citizens advisory committee to initiate the Arboretum.

(2) Purpose. To formalize the establishment of the Town as an Arboretum and to organize the Arboretum Committee.

(b) The Arboretum

(1) There is hereby created the Garrett Park Arboretum, hereinafter known as the Arboretum.

(2) The Arboretum shall consist of all trees, shrubs, woody plants, and other herbaceous material planted or maintained by the Town on any and all public land owned by the Town, including but not limited to such material in parks, playgrounds, rights-of-way, and lands leased by the Town to others, together with such property (whether or not owned by the Town) for which the Town may from time to time have maintenance responsibility.

(c) The Committee