



## **Request for Proposals for Tree Planting**

Arlingtonians for a Clean Environment (ACE) is accepting proposals for a company to do tree planting for Arlington County's Tree Canopy Fund. We anticipate planting 150 to 175 trees in private backyards, apartment building/condo association common areas, and in other locations on private property during spring 2017, with all planting completed no later than April 15. Locations will be scattered throughout Arlington County. Further information on the Tree Canopy Fund is available at <http://www.arlingtonenvironment.org/community-action/trees/>

*Deadline for submission of proposals: 5 pm on Friday, September 23, 2016 to [Trees@ArlingtonEnvironment.org](mailto:Trees@ArlingtonEnvironment.org)*

### **Project Overview**

The project term will be from December 2016 through April 2017 plus the planting of replacement warranty trees the following February through April 2018 with the process and responsibilities for each of the parties detailed below. The contract performance will be reviewed and if all conditions were met, may be renewed. The Contractor shall provide all materials, labor and equipment to complete all landscape work described in the standards. Work shall be performed in accordance with the attached standards and specifications.

The project will include:

- Major tree canopy fund planting in the spring 2017 with orders to be placed on or before December 15 and plantings to be completed before April 15.
- Replacement warranty trees.
- Possible interim orders for trees on an "as needed" basis at any time during the contract term.

### **Process and Responsibilities**

1. ACE is responsible for publicizing the availability of trees, managing the application process, selecting Arlington recipients of trees, and obtaining signed consent forms for planting the tree. ACE will prepare a spreadsheet listing tree recipient's name, address, email and phone number along with the species and location of planting. This information will be sent to Contractor by December 15, 2016.
2. ACE shall obtain permission from tree recipients for the contractor to plant on the recipients' land and their responsibility to mark planting location with an easily identified marker. ACE shall develop an information packet on care of young trees to be provided to tree recipients by Contractor at time of planting.

3. The Contractor will obtain the required number of each tree species and have trees ready to plant in early February. The Contractor shall notify ACE immediately of unavailability of a species and ACE shall assist in finding substitute species or canceling recipients' order. The Contractor will plant, as weather conditions permit, until all are completed, but no later than April 15.
4. The Contractor is responsible for contacting Miss Utility and reminding each recipient via email to mark the planting location for Miss Utility. The Contractor shall resolve any Miss Utility conflicts directly with the tree recipient homeowner. Contractor shall maintain a list for ACE review documenting when each recipient was contacted.
5. The Contractor shall notify each individual tree recipient via email of their planting date at least three (3) days before planting. ACE will be copied on all emails. Contractor shall also maintain a list showing when each recipient was contacted.
6. Contractor shall deliver one copy of tree information packet to each tree recipient.
7. All trees shall have a one-year warranty for replacement as detailed in the standards below in the guarantee section.
8. ACE shall have a representative available throughout the project time to assist with any unexpected concerns. This representative shall inspect the trees at the staging location during the project and intermittently observe plantings throughout the project.

### **Proposal Requirements**

Proposals should include prices for the trees, planting costs, materials, warranty replacement and administrative costs in the attached chart. For administrative costs:

- 75% will be paid automatically upon submission of an invoice after tree planting; and
- 25% will be paid no sooner than September 1, 2017 based upon the timeliness and successful performance of:
  - Contacts to Miss Utility for each location identified for tree planting;
  - Emails to recipients to mark each planting location;
  - Emails to recipients about planting dates;
  - Delivery of tree information packets;
  - Warranty inspections;
  - Warranty reports; and
  - Warranty replacements.

If any of the listed actions are not performed, or are performed in an unsuccessful or untimely manner, the Contractor forfeits payment for 25% of administrative costs.

Proposals must include:

1. An overview of applicant's ability and experience to complete the project (please limit overview to no more than two pages).
2. Completed table below with all costs detailed.
3. Documented confirmation of insurance and bonding.

This is an open and competitive process. Answers to any questions from potential contractors will be made available to all who request additional information.

## Tree Canopy Fund Proposal Cost Table

Item	Cost
I. Species (cost per tree)	
<i>Carpinus caroliniana</i> – American hornbeam	
<i>Liquidambar styraciflua</i> – Sweetgum	
<i>Magnolia grandiflora</i> - Southern magnolia	
<i>Nyssa sylvatica</i> – Black gum	
<i>Ostrya virginiana</i> – Eastern hophornbeam	
<i>Quercus alba</i> – White oak	
<i>Quercus coccinea</i> – Scarlet oak	
<i>Quercus phello</i> - Willow oak	
<i>Quercus rubra</i> - Red oak	
<i>Taxodium distichum</i> – Bald cypress	
II. Cost for warranty replacement under one-year guarantee (per tree)	
III. Planting and transportation costs (per tree)	
IV. Watering bag or ooze tube (per tree, 15 gallon minimum)	
V. Mulch cost to provide each tree with three-foot diameter ring, maximum three inches deep (per tree)	
VI. Administrative costs (per tree)	
VII. Total (items II through VII)	

## **Tree Canopy Fund Standards and Specifications (to be included in the final contract)**

### **I. TREES**

The Contractor shall furnish and install trees listed in the attached tree list in accordance with the following specifications: All trees shall be grown in USDA Plant Hardiness Zones 4, 5, 6, or 7. Field grown trees shall be grown in soils of the Piedmont region. All plant materials shall be nursery grown stock, and shall conform to the latest specifications of the American Nursery & Landscape Association (ANSI) and to the detailed standards below. Contractor shall provide ACE with name and address of each grower of each species.

The Contractor shall notify ACE immediately and within fifteen (15) days of placement of an order if specific plants will not be available in time for the scheduled planting and indicate proposed substitutions. No substitutes shall be installed without the written approval of ACE.

#### **TREE SPECIFICATION**

1. Standards and measurement: Individual trees shall be no smaller than 1.5” caliper with a minimum of 5 feet in height and no tree shall be larger than 2.5” caliper. Since smaller trees thrive better and quicker than larger ones, preference is for smaller 1.5 to 2” caliper.
2. All plants including the root ball dimensions to trunk caliper ratio shall conform to ANSI Z60.1 “American Standard for Nursery Stock” latest edition, unless modified by provisions in this specification. When there is a conflict between this specification and ANSI Z60.1, this specification section shall be considered correct. No plants larger than 2.5” caliper may be used.
3. Proper Identification: All trees shall be true to name as ordered and shown on planting plans and shall be labeled individually by genus, species, variety and cultivar. Preference is for straight native species; cultivars require prior approval as substitutions.
4. Compliance: All trees shall comply with federal and state laws and regulations requiring observation for plant disease, pests, and weeds. Observation certificates required by law shall accompany each shipment of plants.

**Plant Quality:** Provide healthy stock, grown in a nursery and reasonably free of die-back, disease, insects, eggs, bores, and larvae. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant

#### **Plant quality above the soil line:**

1. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified.
2. Crown: The form and density of the crown shall be typical for a young specimen of the species pruned to a central and dominant leader.

3. Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of prolonged moisture stress or over watering as indicated by wilted, shriveled, or dead leaves.
4. Branches: Shoot growth (length and diameter) throughout the crown should be appropriate for the age and size of the species or cultivar. Trees shall not have dead, diseased, broken, distorted, or otherwise injured branches. Main branches shall be distributed along the central leader not clustered together. They shall form a balanced crown appropriate for the cultivar/species.
5. Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1 inch above the branch union. The attachment of the largest branches (scaffold branches) shall be free of included bark.
6. Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury).
7. Temporary branches, unless otherwise specified, can be present along the lower trunk below the lowest main (scaffold) branch. These branches should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree.
8. Trees shall have one central leader. If the leader was headed, a new leader (with a live terminal bud) at least one-half the diameter of the pruning cut shall be present. All trees are assumed to have one central leader trees.
9. All graft unions, where applicable, shall be completely closed without visible sign of graft rejection. All grafts shall be visible above the soil line.
10. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk remains vertical without a stake. Auxiliary stake may be used to maintain a straight leader in the upper half of the tree.

**Plant quality at or below the soil line:**

1. Plant roots shall be normal to the plant type specified. Root observations shall take place without impacting tree health. Root quality at or below the soil line shall comply with the project Root Acceptance details and the following:
2. The roots shall be reasonably free of scrapes, broken or split wood. The root system shall be reasonably free of injury from biotic (e.g., insects and pathogens) and abiotic (e.g., herbicide toxicity and salt injury) agents. Wounds resulting from root pruning used to produce a high quality root system are not considered injuries.
3. A minimum of three structural roots reasonably distributed around the trunk (not clustered on one side) shall be found in each plant. Root distribution shall be uniform throughout the root ball, and growth shall be appropriate for the species.
4. Plants with structural roots on only one side of the trunk (J roots) shall be rejected.
5. The root collar shall be within the upper 2 inches of the substrate/soil. Two structural roots shall reach the side of the root ball near the top surface of the root ball. The grower may request a modification to this requirement for species with roots that rapidly descend, provided that the grower removes all stem girdling roots above the structural roots across the top of the root ball.
6. The root system shall be reasonably free of stem girdling roots over the root collar or

kinked roots from nursery production practices.

7. **Plant Grower Certification:** The final plant grower shall be responsible to have determined that the plants have been root pruned at each step in the plant production process to remove stem girdling roots and kinked roots, or that the previous production system used practices that produce a root system throughout the root ball that meets these specifications. Regardless of the work of previous growers, the plant's root system shall be modified at the final production stage, if needed, to produce the required plant root quality. The final grower shall certify in writing that all plants are reasonably free of stem girdling and kinked roots as defined in this specification, and that the tree has been grown and harvested to produce a plant that meets these specifications.
8. At time of observations and delivery, the root ball shall be moist throughout. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead roots.

**Root Ball Package Options:** The following root ball packages are permitted. Any type of root ball packages that is not specifically defined in this specification shall not be permitted.

**A. Balled and Burlapped Plants**

1. All Balled and Burlapped Plants shall be field grown, and the root ball packaged in a burlap and twine and/or burlap and wire basket package.
2. Plants shall be harvested with the following modifications to standard nursery practices.
  - a. Prior to digging any tree that fails to meet the requirement for maximum soil and roots above the root collar, carefully removed the soil from the top of the root ball of each plant, using hand tools, water or an air spade, to locate the root collar and attain the soil depth over the structural roots requirements. Remove all stem girdling roots above the root collar. Care must be exercised not to damage the surface of the root collar and the top of the structural roots.
  - b. Trees shall be dug for a minimum of 4 weeks and a maximum of 52 weeks prior to shipping. Trees dug 4 to 52 weeks prior to shipping are defined as hardened-off. Digging is defined as cutting all roots and lifting the tree out of the ground and either moving it to a new location in the nursery or placing it back into the same hole. Trees that are stored out of the ground shall be placed in a holding area protected from extremes of wind and sun with the root ball protected by covering with mulch or straw and irrigated sufficiently to keep moisture in the root ball above wilt point and below saturation
  - c. If wire baskets are used to support the root ball, a "low profile" basket shall be used. A low profile basket is defined as having the top of the highest loops on the basket no less than 4 inches and no greater than 8 inches below the shoulder of the root ball package.
  - d. Twine and burlap used for wrapping the root ball package shall be natural, biodegradable material. If the burlap decomposes after digging the tree then the root ball shall be re-wrapped prior to shipping if roots have not yet grown to keep root ball intact during shipping.

**A. Bare Root Plants**

1. Harvest bare root plants while the plant is dormant and a minimum of 4 weeks prior to leaf out (bud break).

2. The root spread dimensions of the harvested plants shall conform to ANSI Z60.1 for nursery grown bare root plants for each size and type of plant. Just prior to shipping to the job site, dip the root system into a slurry of hydrogel (cross linked polyacrylamide) and water mixed at a rate of 15 oz. of hydrogel in 25 gallons of water. Do not shake off the excess hydrogel. Place the root system in a pleated black plastic bag and tie the bag snugly around the trunk. Bundle and tie the upper branches together.
3. Keep the trees in a cool dark space for storage and delivery. If daytime outside temperatures exceeds 70 degrees F, utilize a refrigerated storage area with temperature between 35 and 50 degrees.
4. Where possible, plan time of planting to be before bud break. For trees to be planted after bud break, place the trees before bud break in an irrigated bed of pea gravel.
  - a. The pea gravel bed shall be 18 inches deep over a sheet of plastic.
  - b. Space trees to allow the unbundled branches to grow without shading each other.
  - c. Once stored in pea gravel, allow the trees sufficient time for the new root system to flush and spring growth of leaves to fully develop before planting.
  - d. Pea gravel stored trees may be kept for up to one growing season.
  - e. Pea gravel stored trees shall be dipped, packaged and shipped similar to the requirements for freshly dug bare root trees above.

**B. In-Ground Fabric Bag-Grown**

1. In-ground fabric container plants may be permitted for trees no more than 1.5” caliper but not for larger.
2. Provide plants established and well rooted.

**C.** All plants in transit shall be tarped or covered and shall be kept from drying out. Desiccation damage shall be cause for rejection.

**D.** Anti-transpirants shall be applied on all material dug while in foliage.

**Inspection**

- A. Plants are subject to inspection and approval by ACE at the place of growth and/or planting for conformity to the specification requirements as to quality, size, and variety. This inspection will be at ACE’s expense.
- B. Plants damaged in handling or transportation may be rejected by ACE. Any tree or shrub found on inspection to have wounds over 12.5% of the circumference of any limb or trunk, or over 1 inch in any direction, whichever is smaller, will be rejected. ACE or the tree recipient may reject at time of planting or two days afterwards if not present during planting.
- C. State or federal nursery inspection certificates shall be furnished to ACE upon request.

## **II. WATERING BAGS**

Contractor shall provide and install at time of planting a plastic tree watering bag holding a minimum of 15 gallons of water and with a slow drip hole(s) water release system, specifically designed to water establishing trees. Water should release over a several day period, not within a few hours

## **III. MULCH**

Contractor shall provide mulch for time of planting that is shredded hardwood bark or leaf in mulching grade. Mulch shall be clean, free of stones, clods and non-organic matter. Hardwood chip size shall be between 1/2" to 2" maximum. Mulch ring shall follow attached diagram from Arlington County and be no more than 3" deep and 6" from tree trunk.

## **IV. EDUCATION TO TREE RECIPIENT**

ACE shall prepared education specific to each tree species for each homeowner that receives a tree and if apartments receive trees, to the listed contact person who may be the apartment manager, grounds manager or resident. Contractor shall be responsible for providing this packet to each tree recipient. Contractor is encouraged to provide additional education personally to each recipient.

## **V. WORKMANSHIP**

The Contractor Crew Leader shall be present on site until the complete installation of the project, and shall be fluent in the English language to communicate clearly and effectively with ACE staff and tree recipients.

During planting, all areas shall be kept neat and clean, and all reasonable precautions shall be taken to avoid damage to existing plants, turf, and structures. The Contractor shall cover sidewalks or pavers with plywood, and cover turf with plywood, burlap or tarp during excavation.

Any damaged areas shall be restored by the Contractor to their original condition.

Plants shall be installed immediately following excavation of the hole. No holes shall remain open overnight. The Contractor shall cover and barricade any open holes to effectively prevent any danger of injury to pedestrians.

## **VI. PREPARING TO PLANT**

### **Utilities**

The Contractor is solely responsible for notifying "Miss Utility" before start of any work to determine the location of any utilities. Contractor is responsible for contacting each tree recipient with a reminder to mark location with flag for Miss Utility.

If there is a conflict with the utilities and the planting, the Contractor will contact the tree recipient to determine new locations for affected plants prior to the planting process. Reasonable cost of relocating due to conflict with utilities will be borne by ACE. ACE will instruct property owners to stake or mark all planting locations at beginning of February but it is Contractor's obligation to notify all tree recipients in the week before Miss Utility is expected and planting is scheduled .

Contractor shall take full responsibility for any cost incurred due to damage of said utilities by their operations.

### **Concealed Conditions**

The Contractor will not be held responsible for uncommon concealed conditions such as undetected road beds, concrete/asphalt/stone spoils, etc., encountered in excavation work which are not apparent at the time of bidding. Rocks, tree roots and hard clay are common elements of "urban" soils and will frequently be encountered in the execution of this contract. Any claim by the Contractor that a concealed condition requires additional compensation shall be submitted in writing to ACE.

### **Drainage**

No plants shall be planted in locations where drainage may, in the opinion of the Contractor be unacceptable. Such situations shall be brought to the attention of the ACE before work continues and, if deemed necessary by ACE, the plants shall be relocated or the contract shall be modified to allow for drainage correction at a negotiated cost. Any such modification shall be in writing and signed by both parties.

### **Delivery, Storage And Handling**

Protect materials from deterioration during delivery and storage. Adequately protect plants from drying out, exposure of roots to sun, wind or extremes of heat and cold temperatures. If planting is delayed more than 24 hours after delivery, set plants in a location protected from sun and wind. Provide adequate water to the root ball package during the shipping and storage period.

1. All plant materials must be available for observation prior to planting.
2. Using a soil moisture meter, periodically check the soil moisture in the root balls of all plants to assure that the plants are being adequately watered. Volumetric soil

moisture shall be maintained above wilting point and below field capacity for the root ball substrate or soil.

Do not deliver more plants to the site than there is space with adequate storage conditions. Provide a suitable remote staging area for plants and other supplies.

The Owner's Representative or Contractor shall approve the duration, method and location of storage of plants.

Provide protective covering over all plants during transporting.

### **Planting Season**

Planting shall only be performed when weather and soil conditions are suitable for planting the materials specified in accordance with locally accepted practice. Install plants during the planting time (Feb 15 – April 1) unless otherwise approved in writing by the Owner's Representative. In the event that the Contractor request planting outside the dates of the planting season, approval of the request does not change the requirements of the warranty.

### **Adverse Weather Conditions**

No planting shall take place during extremely hot, dry, windy or freezing weather.

The root system of each plant, regardless of root ball package type, shall be observed by the Contractor, at the time of planting to confirm that the roots meet the requirements for plant root quality in Part 2 Products: Plants General: Plant Quality. The Contractor shall undertake at the time of planting, all modifications to the root system required by the Owner's Representative to meet these quality standards.

1. Modifications, at the time of planting, to meet the specifications for the depth of the root collar and removal of stem girdling roots and circling roots may make the plant unstable or stress the plant to the point that the Owner's Representative may choose to reject the plant rather than permitting the modification.
2. Any modifications required by the Owner's Representative to make the root system conform to the plant quality standards outlined in Part 2 Products: Plants General: Quality, or other requirements related to the permitted root ball package, shall not be considered as grounds to modify or void the plant warranty.
3. The resulting root ball may need additional staking and water after planting. The Owner's Representative may reject the plant if the root modification process makes the tree unstable or if the tree is not healthy at the end of the warranty period. Such plants shall still be covered under the warranty
4. The Contractor remains responsible to confirm that the grower has made all required root modifications noted during any nursery observations.

### **VI. Preparing Tree Hole (see attached diagram for details)**

Excavation of the Planting Space: Using hand tools, excavate the planting hole into the Planting Soil to the depth of the root ball measured after any root ball modification to correct root

problems, and wide enough for working room around the root ball or to the size indicated on the drawing or as noted below.

For trees and shrubs planted in soil areas that are NOT tilled or otherwise modified to a depth of at least 12 inches over a distance of more than 10 feet radius from each tree, or 5 feet radius from each shrub, the soil around the root ball shall be loosened as defined below :

- a. The area of loosening shall be a minimum of 3 times the diameter of the root ball at the surface sloping to 2 times the diameter of the root ball at the depth of the root ball.
- b. Loosening is defined as digging into the soil and turning the soil to reduce the compaction. The soil does not have to be removed from the hole, just dug, lifted and turned. Lifting and turning may be accomplished with a tracked mini excavator, or hand shovels.
- c. If an auger is used to dig the initial planting hole, the soil around the auger hole shall be loosened as defined above for trees and shrubs planted in soil areas that are NOT tilled or otherwise modified.
- d. The measuring point for root ball depth shall be the average height of the outer edge of the root ball after any required root ball modification.
- e. If motorized equipment is used to deliver plants to the planting area over exposed planting beds, or used to loosen the soil or dig the planting holes, all soil that has been driven over shall be tilled to a depth of 6 inches.

For trees to be planted in prepared Planting Soil that is deeper than the root ball depth, compact the soil under the root ball using a mechanical tamper to assure a firm bedding for the root ball. If there is more than 12 inches of planting soil under the root ball excavate and tamp the planting soil in lifts not to exceed 12 inches.

Set top outer edge of the root ball at the average elevation of the proposed finish. Set the plant plumb and upright in the center of the planting hole. The tree graft, if applicable, shall be visible above the grade. Do not place soil on top of the root ball.

The Owner's Representative may request that plants orientation be rotated when planted based on the form of the plant.

Backfill the space around the root ball with the same planting soil or existing soil that was excavated for the planting space. See Specification Section Planting Soil, for requirements to modify the soil within the planting bed.

Brace root ball by tamping Planting Soil around the lower portion of the root ball. Place additional Planting Soil around base and sides of ball in six-inch (6") lifts. Lightly tamp each lift using foot pressure or hand tools to settle backfill, support the tree and eliminate voids. DO NOT over compact the backfill or use mechanical or pneumatic tamping equipment. Over compaction shall be defined as greater than 85% of maximum dry density, standard proctor or greater than 250 psi as measured by a cone penetrometer when the volumetric soil moisture is lower than field capacity.

When the planting hole has been backfilled to three quarters of its depth, **water shall be poured around the root ball and allowed to soak into the soil to settle the soil.** Do not flood the planting space. If the soil is above field capacity, allow the soil to drain to below field capacity before finishing the planting. Air pockets

shall be eliminated and backfill continued until the planting soil is brought to grade level.

Build a 4 inch high, level berm of Planting Soil around the outside of the root ball to retain water. Tamp the berm to reduce leaking and erosion of the saucer.

Thoroughly water the Planting Soil and root ball immediately after planting. All trees shall be planted, watered thoroughly before applying 1” of mulch. Tree recipients will be asked to have water available, but it is the duty of the contractor to carry water in case it is needed. No tree shall be planted without being watered.

Remove all nursery plant identification tags and ribbons as per Owner’s Representative instructions. The Owner’s Representative’s seals are to remain on plants until the end of the warranty period.

Remove corrugated cardboard trunk protection after planting.

Follow additional requirements for the permitted root ball packages.

**Balled And Burlapped Plants** require the following additional requirements:

1. After the root ball has been backfilled, remove all twine and burlap from the top of the root ball. Cut the burlap away; do not fold down onto the Planting Soil.
2. If the plant is shipped with a wire basket that does not meet the requirements of a “Low Rise” basket, remove the top 6 - 8 inches of the basket wires just before the final backfilling of the tree.
3. Earth root balls shall be kept intact except for any modifications required by the Owner’s Representative to make root package comply with the requirement in Part 2 Products.

**Bare Root Plants** require the following additional requirements

1. Dig the planting hole to the diameter of the spread of the roots to a depth in the center that maintains the root collar at the elevation of the surrounding finished grade and slightly deeper along the edges of the hole.
2. Spread all roots out radial to the trunk in the prepared hole making the hole wider where needed to accommodate long roots. Root tips shall be directed away from the trunk. Prune any broken roots removing the least amount of tissue possible.
3. Maintain the trunk plumb while backfilling soil around the roots.
4. Lightly tamp the soil around the roots to eliminate voids and reduce settlement.

**In-Ground Fabric Containers** require the following requirements

1. Remove the fabric container from the root ball. Cut roots at the edge of the container as needed to extract the fabric from the roots. Make clean cuts with sharp tools; do not tear roots away from the fabric.
2. Observe the root system after the container is removed to confirm that the root system meets the quality standards.

## **VII. WATERING**

1. The Contractor shall be fully responsible to ensure that adequate water is provided to all plants at the time of planting.
2. Hand water root balls of all plants to assure that the root balls have moisture above wilt point and below field capacity. Test the moisture content in each root ball and the soil outside the root ball to determine the water content.
3. The Contractor shall install watering bag with a minimum of 15 gallons for each tree. The watering bags shall remain the property of the Tree Owner at the completion of the work.

## **VIII. CLEAN-UP**

4. During installation, keep the site free of trash, pavements reasonably clean and work area in an orderly condition at the end of each day. Remove trash and debris in containers from the site no less than once a week. Immediately clean up any spilled or tracked soil, fuel, oil, trash or debris deposited by the Contractor from all surfaces within the project or on public right of ways and neighboring property.
5. Once installation is complete, wash all soil from pavements and other structures. Ensure that mulch is confined to planting beds and that all tags and flagging tape are removed from the site.
6. Make all repairs to grades, ruts, and damage by the plant installer to the work or other work at the site.
7. Remove and dispose of all excess planting soil, subsoil, mulch, plants, packaging, and other material brought to the site by the Contractor. With permission from homeowner, excess soil may be left on the yard.

## **IX. ONE-YEAR GUARANTEE**

- A. Any material that is 25% dead or more shall be considered dead and shall be replaced at no charge to the ACE. A tree shall be considered dead when the main leader has died or 25% of the crown is dead.
- B. Early reporting of tree problems is encouraged, specifically:
  - ACE shall notify the Contractor of any tree that has not leafed out or has 25% or more of the canopy dead no later than one-year after planting. Within fifteen (15) working days of notification, the contractor shall inspect said tree and respond back to ACE with a written report of the state of the tree and any corrective action that needs to be taken such as removal and replacement.

- If the Contractor voids the warranty because trees are not being properly cared for, specifically if the ground is too hard and shows signs of not being watered in the last 10 days or if the tree has been damaged with bark injury, the Contractor must notify ACE in writing that the warranty will be voided. ACE has 15 days upon receipt of that notification to notify the Contractor in writing if ACE believes the warranty has been voided in error.
- C. A new one-year guarantee period shall begin upon inspection and acceptance of landscape material planted to replace material that died.
- D. The Contractor shall conduct a final inspection at the end of the one-year guarantee period. It shall be the Contractor's responsibility to provide in writing the results of this inspection.
- E. The contractor shall remove all staking and guying material at the end of the one-year guarantee period that homeowner has not already removed.
- III. Replacements and Conditions
  - A. Replacements shall be made during the next planting period unless ACE specifies an earlier date.
  - B. A replacement shall be of the same size as the original with no additional soil additives to be used.
  - C. The Contractor will not be responsible for plants that have been damaged by vandalism, fire, removal, relocation, or other activities beyond the control of the Contractor

Planting diagram. Note: Contractor must water once a installation and install full watering bag. Tree recipient is responsible for additional watering.

