Guidance Document

For

Tree Conservation, Landscape, and Buffer Requirements

Article III Section 3.2

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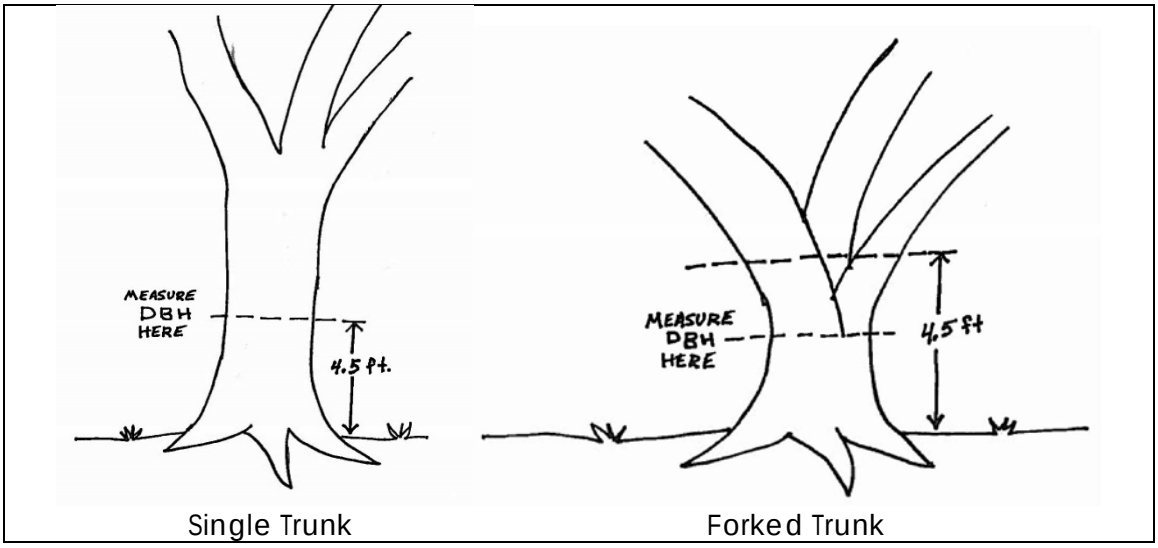
Revision History

Revision Number	Revision Date	Revision Summary
1.0	02/09/2017	Original Document
2.0	03/03/2020	Added Example Tree Care Plan Items, Boundary Tree Info and Example Boundary Tree Agreements

Technical Standards

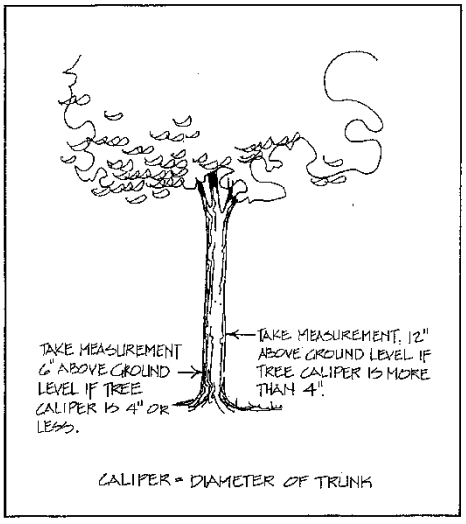
1. Tree Measurements

    a. Diameter at Breast Height (DBH): The standard measure of tree size (for trees existing on a site). The tree trunk is measured at a height of 4 1/2 feet above the ground. If a tree splits into multiple trunks below 4 1/2 feet, the trunk is measured at its most narrow point beneath the split.



Single Trunk Forked Trunk

    b. Caliper: A standard of trunk measurement for replacement trees. Caliper inches are measured at the height of 6 inches above the ground for trees up to and including 4 inch caliper and 12 inches above the ground for trees larger than 4 inch caliper.

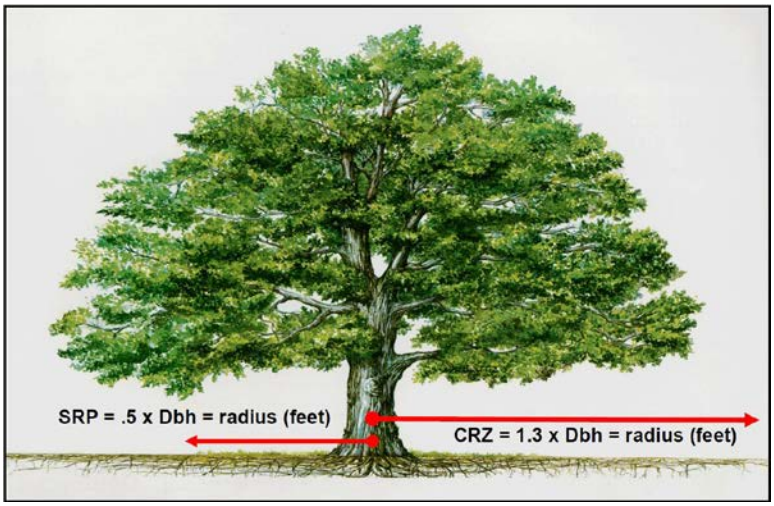


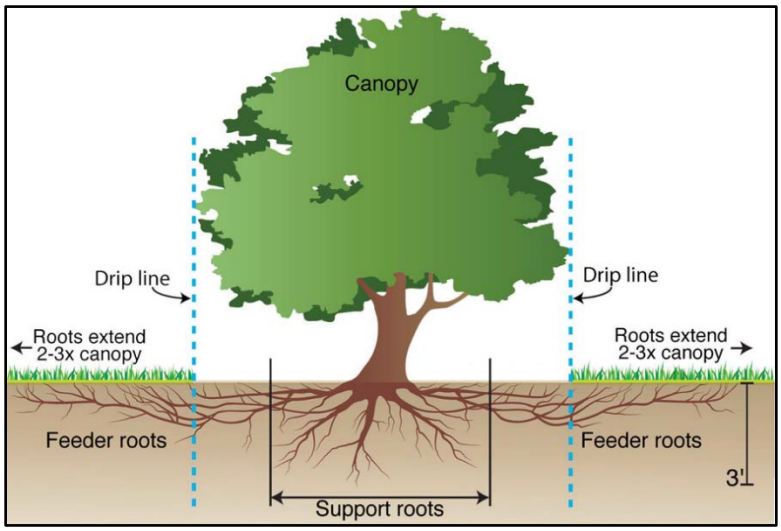
c. Critical Root Zone (CRZ): The minimum area beneath a tree which must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The Critical Root Zone will typically be represented by a concentric circle centering on the tree's trunk with a radius equal in feet to one and three-tenths (1.3) times the number of inches of the trunk diameter.

    i. EXAMPLE: The CRZ radius of a twenty (20) inch diameter tree is twenty-six (26) feet.

d. Structural Root Plate (SRP): The zone of rapid root taper that provides the tree stability against wind throw. The radius of the structural root plate is equal to 0.5 feet per inch of DBH.

    i. EXAMPLE: The SRP radius of a twenty (20) inch diameter tree is ten (10 feet.





2. Specimen Trees: Any tree which qualifies for special consideration for preservation due to its size, type, condition, location or historical significance and which also meets the minimum size criteria set forth below.

   Size Criteria:

Pine Trees:	30-inch diameter or larger for trees in the *Pinus* (Pine) genus.
Coniferous Trees:	20" diameter or larger for trees in the *cedrus* (deodar cedar), *Thuja* (Arborvitae), or other ecologically similar trees,
Overstory Trees:	30-inch diameter or larger for trees in the *Liquidambar* (Sweetgum) or *Liriodendron* (Tulip poplar) genus
	20-inch diameter or larger for trees in the *Fagus* (Beech), *Nyssa* (Tupelo), *Diospyros* (Persimmon), *Sassafras* (Sassafras), or other ecologically similar trees,
	20-inch diameter or larger for *Magnolia grandiflora* (Southern magnolia) and those cultivars that generally reach a mature height over 40'
	24-inch (24″) diameter or larger for trees in all other genera
Understory Trees:	8-inch (8″) diameter or larger.
	10-inch (10") diameter or larger for Oxydendron arboretum (Sourwood).

3. Boundary Tree: Any tree located on adjacent property with a critical root zone that will be impacted by proposed land disturbance activity.

   a. If a Boundary Tree cannot be saved or results in an encroachment into the Critical Root Zone of greater than 10%, evidence of notification to the owner of the tree will be required to be provided to the Director. This notification shall generally include the current condition of the tree, % encroachment, potential outcomes of the encroachment, and proposed tree care to offset the encroachment. In no way does this authorize any encroachment into the Structural Root Plate of a Boundary Tree.

   b. See example Boundary Tree Agreements/Letters later in this document. This letter can be written by the project arborist, the owner, developer, etc. It just needs to include the basic information stated above.

4. Tree Density Calculation:

   Trees located on the subject property or those found in the right-of way in front of the property may count towards your required tree density or canopy coverage.

   a. Standard Tree Density Calculation (130 inches per acre)

      To calculate the Required Tree Density on all properties within the City use the formula below:

      SDF - EDF = RDF

      Where:

      SDF (Site Density Factor): The minimum tree density required to be maintained on a developed property in inches per acre. The SDF is calculated by multiplying the number of acres by 130 inches.

      EDF (Existing Density Factor): The density of the existing trees to be conserved measured in inches at DBH (Diameter at Breast Height)

      RDF (Replacement Density Factor): Density in inches of new trees to be planted on a property

      Example A: 15,000 square foot lot (.34 acres)

      SDF =.34 (acres) X 130 (inches) = 44.2 inches

      <u>With no existing trees:</u>

      44.2 (SDF) – 0 (EDF) = 44.2 (RDF)

      You will need to plant:

      11 – 4” caliper trees or 22 – 2” caliper trees.

      <u>With 2 existing 15” trees:</u>

      44.2 (SDF) – 30 (EDF) = 14.2 (RDF)

      You will need to plant:

      3 – 4” caliper trees and 1 - 2” caliper tree.

Example B: 4,000 square foot lot (.09 acres)

SDF =.09 (acres) X 130 (inches) = 11.7 inches

With no existing trees:

11.7 (SDF) – 0 (EDF) = 11.7 (RDF)

You will need to plant:

3 – 4" caliper trees or 6 – 2" caliper trees.

With 1 existing 8" tree:

11.7 (SDF) – 8 (EDF) = 3.7 (RDF)

You will need to plant:

1 – 4" caliper tree or 2 - 2" caliper trees.

b. Alternate Tree Density Calculation (30% Canopy Coverage). This calculation is only for detached single family residential properties and can be accomplished through the preservation or planting of any combination of Large, Medium, Small, or Very Small canopy trees as defined in the City of Alpharetta Tree List:

To calculate the alternative tree density based upon canopy coverage use the formula below.

SCC – ECC = RCC

Where:

SCC (Site Canopy Coverage): The minimum canopy coverage required to be maintained on developed detached single family residential properties in square feet. The SCC is calculated by multiplying the area of the property in square feet by 30%.

ECC (Existing Canopy Coverage): The canopy coverage in square feet of the existing trees to be conserved, obtained from the City of Alpharetta Tree List.

RDF (Replacement Canopy Coverage): The canopy coverage in square
feet of the new trees to be planted on a property, obtained from the City of Alpharetta Tree List.

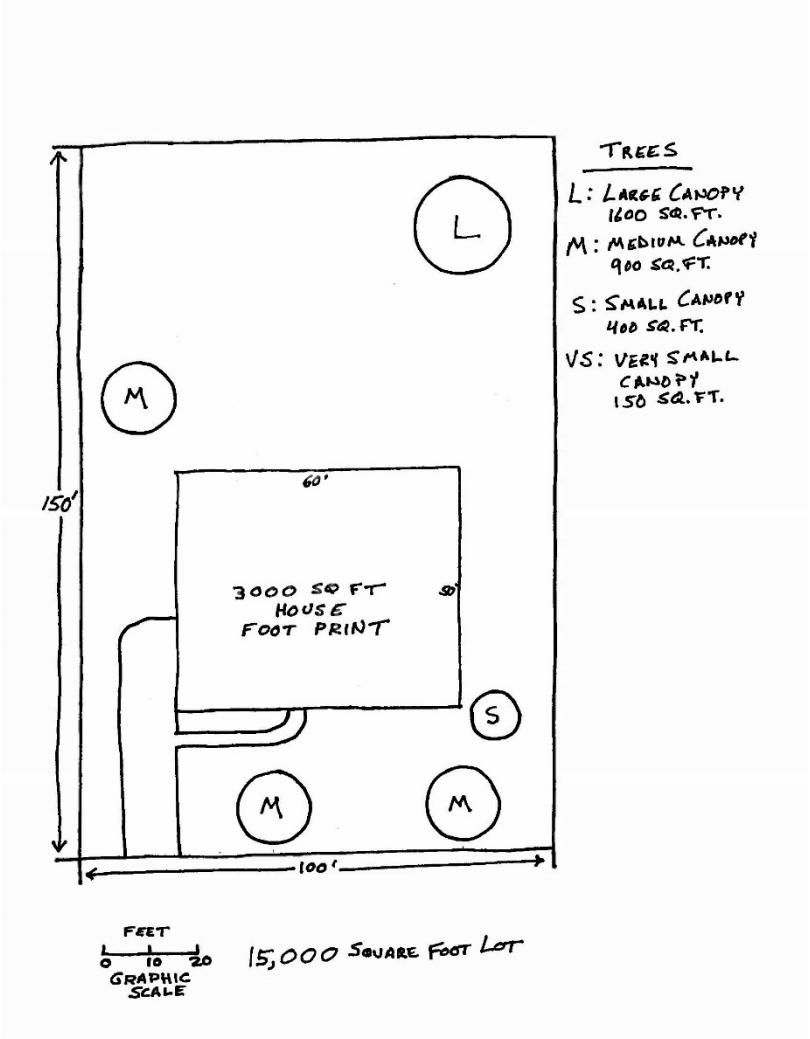
Example A: 15,000 square foot lot with no existing trees

SCC = 15,000 (square feet) X .30 (30%) = 4,500 square feet

4,500 (SCC) – 0 (ECC) = 4,500 (RCC)

You will need to plant:

3 large canopy trees: 1,600 (square feet) X 3 = 4,800 square feet
Or
1 large canopy tree (1,600 square feet)
3 medium canopy trees (900 square feet X 3 = 2,700 square feet)
1 small canopy tree (400 square feet)
Total: 4700 square feet. (See Diagram)



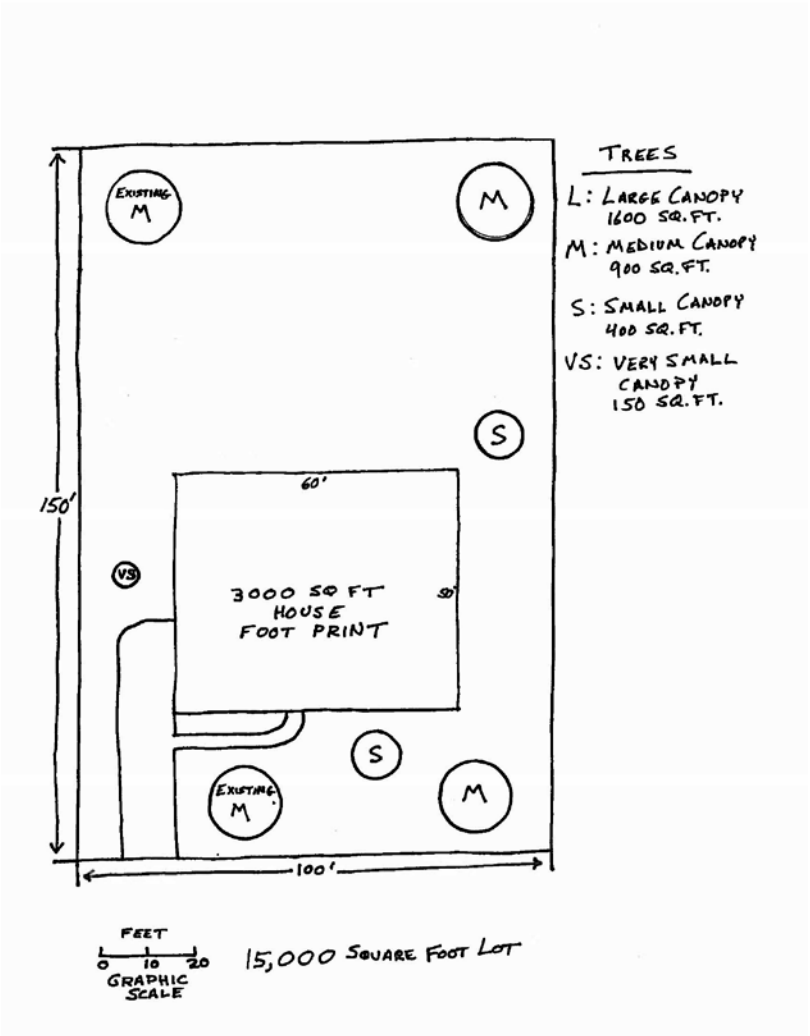
Example B: 15,000 square foot lot with 2 existing medium canopy trees:

SCC = 15,000 (square feet) X .30 (30%) = 4,500 square feet

4,500 (SCC) – 1,800 (ECC) = 2,700 (RCC)

You will need to plant:

1 large canopy tree (1,600 square feet)
1 medium canopy tree (900 square feet)
2 small canopy trees (150 square feet X 2 = 300 square feet)
Total 2800 square feet
Or
2 medium canopy trees (900 square feet X 2 = 1,800 square feet)
2 small canopy trees (400 square feet X 2 = 800 square feet)
1 very small canopy tree (150 square feet)
Total 2750 square feet) See Diagram



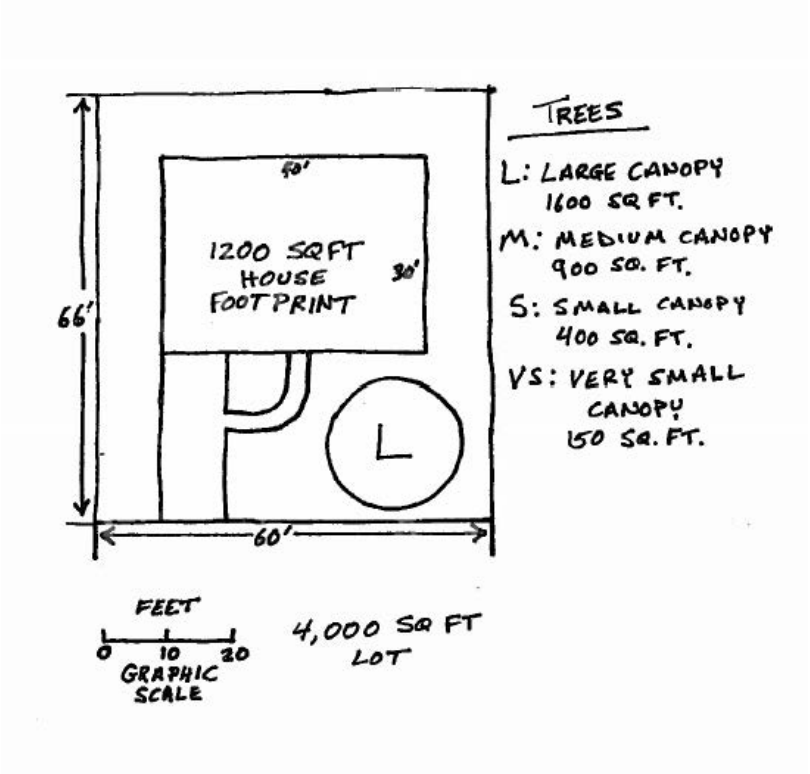
Example C: 4,000 square foot lot with no existing trees:

SCC = 4,000 (square feet) X .30 (30%) = 1,200 square feet

1,200 (SCC) – 0 (ECC) = 1,200 (RCC)

You will need to plant:

1 large canopy tree (1,600 square feet) X 1 = 1,600 square feet
See Diagram
Or
1 medium canopy tree (900 square feet)
2 very small canopy trees (150 Square feet X 2 = 300 square feet)
Total 1200 square feet



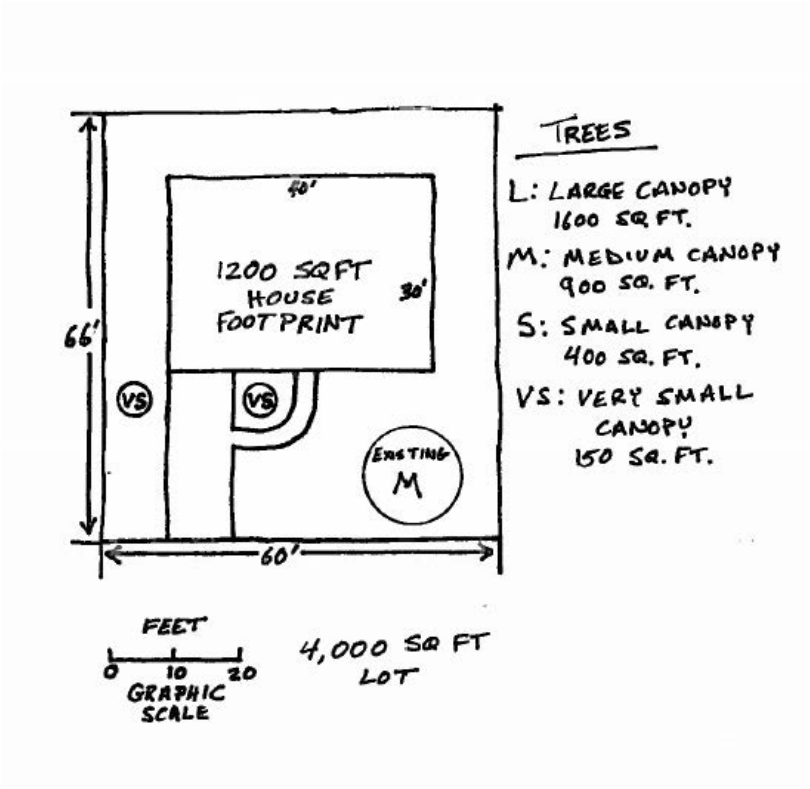
Example D: 4,000 square foot lot with 1 existing medium canopy tree

SCC = 4,000 (square feet) X .30 (30%) = 1,200 square feet

1,200 (SCC) – 900 (ECC) = 300 (RCC)

You will need to plant:

1 small canopy tree (400 square feet)
Or
2 very small canopy trees (150 Square feet X 2 = 300 square feet)
See Diagram



Tree Removal Requirements

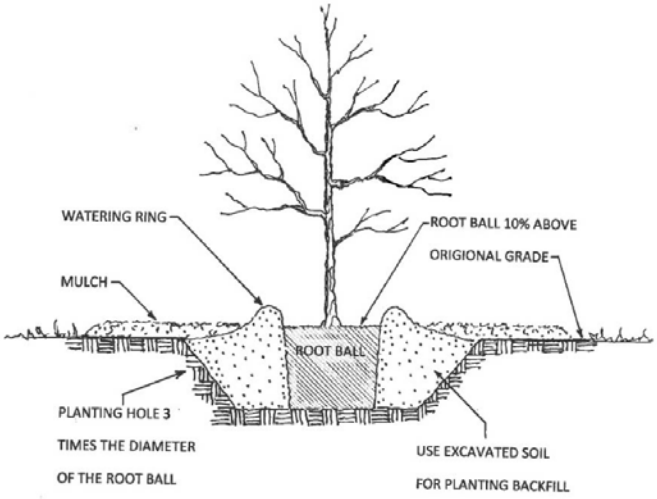
The City of Alpharetta has an online Tree Removal Permitting Process. Please follow the link below to the Tree Removal information page, instructions, and online application.

http://www.alpharetta.ga.us/government/departments/community-development/tree-removal

1. Detached Single Family Residential:
    a. A tree permit is required for the removal of all trees that are alive.
    b. A tree removal permit is not required for dead trees or trees that have already fallen. It is recommended to take photos of these trees for your records.
    c. Replacement trees may be required.
2. Commercial and Attached or Multi-Family Residential:
    a. All commercial properties are required to apply for a tree removal permit for the removal of any trees dead or alive.
    b. Replacement trees may be required.
3. Emergency Removals:
    a. Emergency removals will be handled on a case by case basis.
        i. During normal business hours please contact the City Arborist by phone at (678)297-6229 or by email at treepermits@alpharetta.ga.us.
        ii. If an emergency tree removal must occur during non-business hours, provide the City Arborist with a voice message at (678)297-6229 or email as soon as possible. Take pictures documenting the removal and submit them to the City Arborist as soon as possible but no later than the next business day.
    b. If a tree is in imminent danger of falling and causing damage to person or property a permit is not required. Examples include broken trunks and uprooting trees. Please schedule the removal, take photographs, and provide notification to the City including address and date removal is going to take place.
4. Storm-Damaged Tree Removals:
    a. From time to time a storm will pass through Alpharetta that will topple trees. In this instance the City may decide to suspend tree removal requirements. If this happens please check the City of Alpharetta website (www.alpharetta.ga.us) for information.

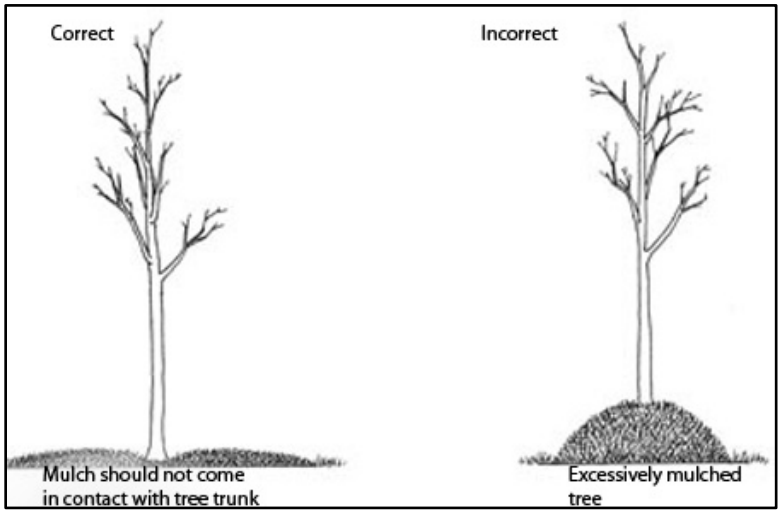
Tree Care

1. Planting:
    a. A properly planted tree has a better chance of survival.

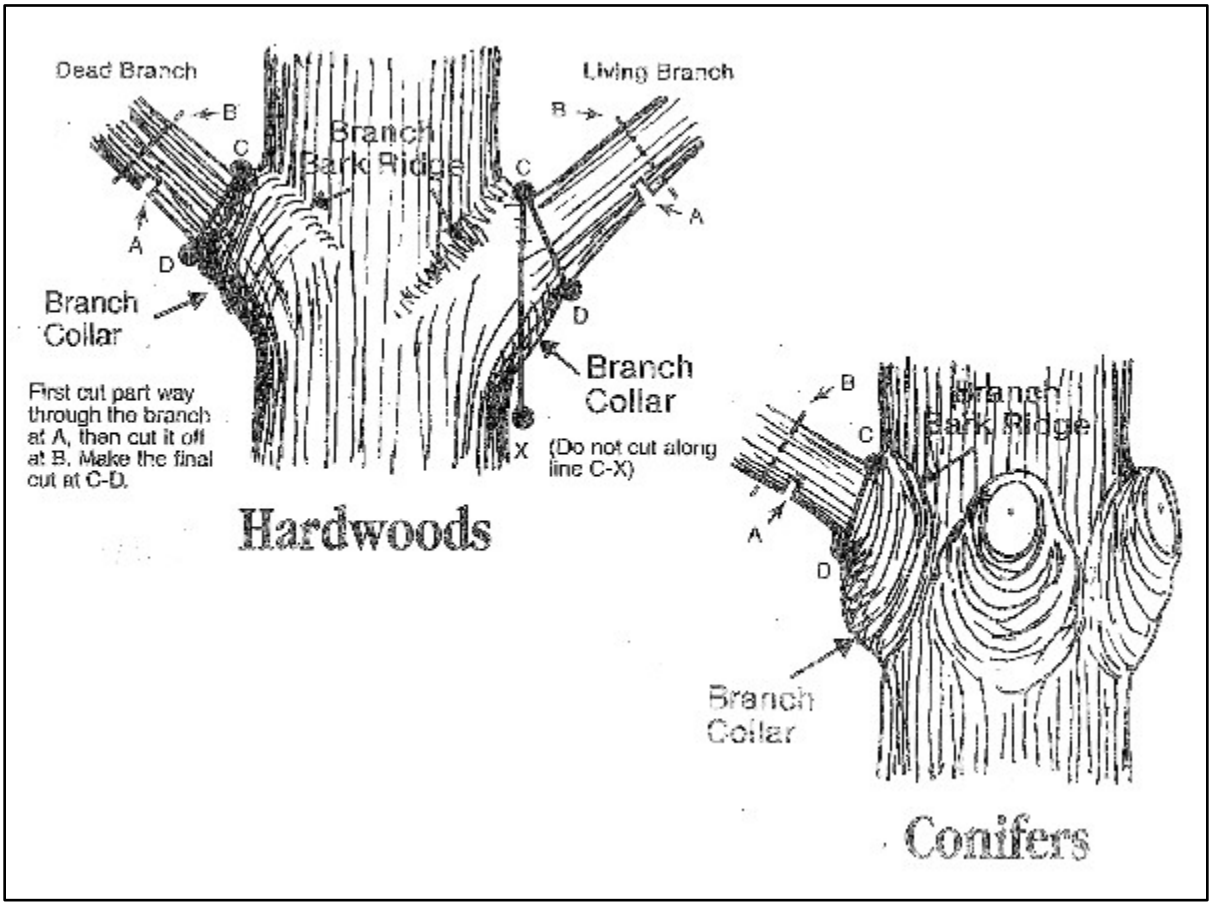


TREE PLANTING DETAIL

2. Mulching:
    a. Organic non-synthetic mulch should be applied to the rooting zone of all trees and be refreshed as needed.
    b. Mulch helps to keep the soil moist over the roots, minimizes weeds, and provides nutrients as the mulch breaks down.
    c. Mulch should be placed at a depth of 2-4 inches and should never touch the trunk of a tree.



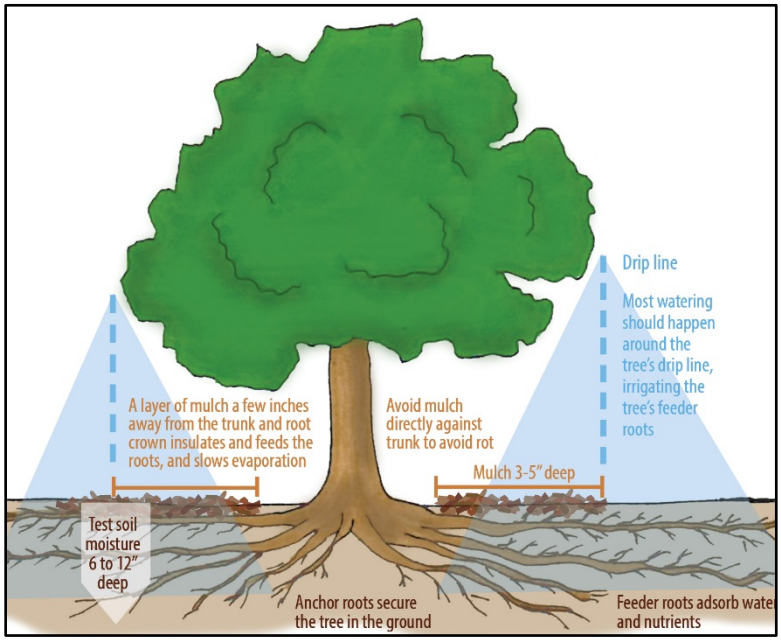
3. Pruning:
    a. Trees should be pruned to remove dead, dying, or diseased branches.
    b. Shaped for aesthetic reasons.
    c. Provide clearance for pedestrians, vehicles, structures, or light.



The basic pruning of trees should follow the Three Cut Method.

First cut should be made at location A
Second cut should be made along line B
Final cut should be made along line C-D
Never cut along line X

5. Watering
    a. Newly planted trees should be watered until fully established with drip irrigation or watering bags. If watering bags are used manufacturers recommendations should be used to determine the size of the watering bag and the schedule to fill the watering bags.
    b. Established trees should be watered during times of drought or lower than normal rainfall. During droughts pleas make sure to follow local water usage regulations.
    c. Watering should simulate at least 1" of rainfall per week and be long and slow so the water can infiltrate through the soil to the roots of the trees.



Example Tree Care Plan Items

Below is a list of items and language that can be utilized in the preparation of a tree care plan within the City of Alpharetta for use when submitting for Land Disturbance Permits. This plan is not to be copied and pasted as a whole it is just a go-by for consulting Arborists. Each plan shall be designed specifically for each tree or group of trees that requires care based upon the impacts and changes to environmental conditions on the site. Additionally, tree care shall also be provided for all new trees starting when the trees are delivered to the project site. Please add items as needed.

The purpose of this Tree Care Plan is to provide proper Arboricultural care to the trees that will be impacted by construction. The care recommendations provided are to off-set the impacts to the trees roots, changes to the environmental conditions, and microclimate. It is expected that this plan will last throughout construction and for two years following ending ***Month and Year.*** (For example if you are estimating a 6 month construction timeframe the total tree care plan will last for 2.5 years). This tree care plan MUST be pre-paid prior to the opening of the site. Provide City Arborist with proof of prepayment before scheduling the initial inspection.

Tree Care Items for Existing Trees

1. **Tree Protection:** Prior to construction the required tree protection fencing per the approved plans shall be installed. This area shall be off limits to all construction activities, equipment, material storage, sanitation facilities, pedestrian traffic, etc. unless approved by the City of Alpharetta.
2. **Root Pruning 1:** During the installation of the Sd1 (silt fencing or C-POP) erosion control measures all roots ½" in diameter or greater encountered along the southern property line for the first 150 feet, on the northern side of the tree protection fence, shall be clean cut in order to promote callous growth and properly seal over. All cuts shall be made with a clean pruning saw or bypass pruning loppers. All root pruning operations shall be under the direction or supervision of an ISA Certified Arborist
3. **Root Pruning 2:** During excavation and grading activities where roots were not previously pruned during the installation of erosion control measures all roots ½" in diameter or greater encountered along the limits of grading shall be clean cut in order to promote callous growth and properly seal over. All cuts shall be made with a clean pruning saw or bypass pruning loppers. All root pruning operations shall be under the direction or supervision of an ISA Certified Arborist
4. **Canopy Pruning along LOD:** Within 2 weeks start of construction the canopies of all trees with limbs overhanging the construction shall be shall be pruned. The canopy shall be raised, as needed, to provide clearance for the construction and construction equipment to work without damaging the limbs of trees to be preserved. Additionally a deadwood pruning of branches 2 inches and larger throughout the canopy shall be completed. All pruning operations shall be under the direction or supervision of an ISA Certified Arborist following ANSI A300 Pruning Standards.

5. **Canopy Pruning:** Trees ***# 1, 2, 3, 4, etc*.** shall be pruned during the dormant season ***Year.*** This pruning shall consist of a deadwood pruning of branches 2 inches and larger throughout the canopy, a crown reduction on trees ***# 1, 2, 3, 4, etc.*** on the ***NSEW*** side of the tree(s). ETC. All pruning operations shall be under the direction or supervision of an ISA Certified Arborist following ANSI A300 Pruning Standards.
6. **Lightening Protection:** Tree **# 1** shall have a two tip lightening protection system installed… grounding rods placed…
7. **Weed Control:** Weeds and undesirable woody vegetation found within the structural root plate (SRP = **20 feet** from the tree) and those growing up the trunk of the tree shall be mechanically removed. Vines shall be removed from the tree by making two cuts on the vine, one at ground level and one two feet above. The cut section shall be carefully removed so as to not damage the trunk of the tree. Free standing weeds shall be removed by cutting at ground level or pulling. Weed control shall take place at the same time as the canopy pruning.
8. **Mulching 1:** Prior to the start of construction mulch shall be applied to the entire critical root zone of specimen trees, trees or quality, and tree groupings where sparse and no natural leaf litter or duff exists with 4-6 inches of clean organic, non-synthetic, wood chip mulch. This mulch shall be free of debris, insects, and pests. Mulch shall not touch the trunk of the tree.
9. **Mulching 2:** Prior to the start of construction mulch shall be applied to the entire critical root zone of landscape trees where sparse with 2-4 inches of clean organic, non-synthetic, wood chip mulch. This mulch shall be free of debris, insects, and pests. Mulch shall not touch the trunk of the tree.
10. **Fertilization 1:** Fertilization using a 10-10-10 (or similar) slow release pelletized fertilizer with minerals and nutrients shall be spread, at the recommended rates, within the CRZ trees **# 1, 2, 3, etc.** during late winter or early spring *Year* and *Year*.
11. **Fertilization 2:** Fertilization using nutrients and minerals per the recommendations of a soil test shall be spread, at the recommended rates, within the CRZ of trees **# 1, 2, 3, etc.** during late winter or early spring ***Year*** and ***Year*.**
12. **Fertilization 3:** An annual regimen of soil fertilization shall be performed in the late winter or early spring for trees **# 1, 2, 3, etc.** ***Year*** and ***Year*.** This program will include a slow release, low nitrogen fertilizer mix in combination with soil conditioners and biological stimulates to be injected at high pressure into the surrounding root system.
13. **Fertilizer Documentation:** Documentation of the products to be used will be provided to the City of Alpharetta before the application date. ***(Fertilization and rates can also be determined by a soils test)***
14. **Insect Control:** A wood borer preventive treatment program shall be performed during the months of July and September during *Year*. Starting again in March, May, July, and September in *Year* and again in *Year*. This program will lower the risk of opportunistic insects infesting and killing the tree. Documentation of the products to be used will be provided to the City of Alpharetta prior to application.

15. **Demolition Monitoring:** During the demolition of structures within the critical root zones of trees to be preserved an ISA Certified Arborist shall be on site to observe and direct the demolition as needed. all roots ½" in diameter or greater encountered along the limits of grading shall be clean cut in order to promote callous growth and properly seal over. All cuts shall be made with a clean pruning saw or bypass pruning loppers. All root pruning operations shall be under the direction or supervision of an ISA Certified Arborist.
16. **Watering Existing Trees:** In the absence of adequate rainfall trees ***# 1, 2, 3, 4, etc.*** Shall be irrigated at the edge of the SRP. Watering shall be provided as a slow long deep watering by an above ground irrigation system consisting of soaker hoses, drip irrigation, or a bubbler system. The irrigation system will be installed on an as needed basis when recommended by the Consulting Arborist or the City of Alpharetta. Water should be provided at a minimum of the equivalent to 1" of rainfall per week.

Tree Care for Newly Planted Trees

1. **Pre Planting Meeting:** The project Arborist will meet with the landscape contractor to discuss the quality, sizes, and acceptance of the landscape material, proper handling and planting techniques, staking, watering, removal of flagging and tree tags, root barrier installation, etc. for plan compliance and the City of Alpharetta Specifications.
2. **Storage of Landscape Material:** Provide an explanation as to how plant material will be stored on site and for any plants that will not be installed immediately. For example; Plant material will be offloaded onto a grassed or mulched area for storage until planted, a temporary nursery with irrigation may be created, healing trees in, protecting trees from radiant heat or extreme cold, etc.
3. **Watering for Newly Planted Landscaping:** All newly planted trees shall be watered with drip or bubbler irrigation or watering bags following the manufacturers recommendations. Additional watering shall be provided during the summer months or during times of drought. Please see watering schedule provided in plan set on **sheet ##** or provided herein.
4. **Fertilization 1:** Newly planted trees shall be fertilized at the time of planting using a 10-10-10 (or similar) slow release pelletized fertilizer with minerals and nutrients shall be mixed in the planting hole and within the required tilled and cultivated area outside the hole, at the recommended rates.
5. **Fertilization 2:** After 1 growing season all newly planted trees shall be fertilized using a 10-10-10 (or similar) slow release pelletized fertilizer with minerals and nutrients spread over the entire cultivated and tilled area, at the recommended rates during late winter or early spring ***Year*** and ***Year*****.**
6. **Fertilization 3:** After 1 growing season all newly planted trees shall be fertilized in the late winter or early spring ***Year*** and ***Year.*** This program will include a slow release, low nitrogen fertilizer mix in combination with soil conditioners and biological stimulates to be injected at high pressure into the cultivated and tilled area surrounding the tree.
7. **Fertilizer Documentation:** Documentation of the products to be used will be provided to the City of Alpharetta before the application date. ***(Fertilization and rates can also be determined by a soils test)***

8. **Mulching 1:** After planting 2-4" of clean organic non-synthetic, wood chip mulch shall be applied to the entire cultivated area surrounding all of the newly planted trees. This mulch shall be free of debris, insects, and pests. Mulch shall not touch the trunk of the tree
9. **Mulching 2:** Continually mulch shall be applied as needed to maintain 2-4" of coverage, no deeper, with clean organic non-synthetic, wood chip mulch free of debris, insects, and pests. Mulch shall not touch the trunk of the tree. It is recommended to refresh mulch during the spring and fall.
10. **Pruning 1:** Newly planted trees shall be pruned for form and structure. Any dead, broken, or crossing limbs shall be pruned with a bypass pruner or loppers, larger limbs shall be cut using the three cut method and a sharp pruning saw. It is recommended to prune newly planted trees prior to standing them up in the planting holes.
11. **Pruning 2:** All newly planted trees adjacent to walking or driving surfaces shall be pruned for pedestrian and vehicular clearance. Pruning cuts shall be made with a bypass pruner or loppers, larger limbs shall be cut using the three cut method and a sharp pruning saw.
12. **Pruning 3:** During the late winter **(YEAR)** after the first full growing season trees should be evaluated for pruning needs and pruned for form, structure, and clearance. Pruning cuts shall be made with a bypass pruner or loppers, larger limbs shall be cut using the three cut method and a sharp pruning saw.

Monitoring

1. **Construction Monitoring:** During the duration of the construction activities bi-monthly (every 2 months) inspections of the tree save areas and individual trees **(you can also list tree numbers here)** shall be performed by an ISA Certified Arborist. A written report (email) of this inspection and detailing any changes to the condition of these trees shall be provided to the Developer and the City of Alpharetta.
2. **Post Construction Monitoring:** For 2 years following construction an ISA Certified Arborist shall perform quarterly inspections and provide a written report (email) to the City of Alpharetta on the condition of these trees. Access to this tree shall be provided by current or new property owner for these inspections. **(*These inspections shall also include irrigation monitoring for the existing and newly planted trees MONTHLY during the first growing season.*)**

Required Notes:

- This tree care plan shall be pre-paid prior to approval of the tree save fencing by the City Arborist.
- In the event that there are any changes to the health and or condition of the tree(s) that warrant additional tree care a new plan will be provided to the City Arborist.
- The City Arborist must be notified within one week of completion of any tree care item as well as periodic updates. Proof of completion must be submitted to City Arborist in order for a CO to be issued.

Boundary Tree Agreements

Example A

May 9, 2019

Jane Doe
1 Alpharetta Avenue
Alpharetta, Georgia 30009

Re: 3 Alpharetta Avenue New Construction

To whom it may Concern;

I am writing on behalf of ACME Home Builders (ACME), the developer of the property at 3 Alpharetta Avenue which is located directly to the north of your property. On May 1, 2019 I performed a basic visual assessment of the tree(s) located on your property for the requirements of the City of Alpharetta. This assessment is included with this letter.

Based upon the location of this tree and the location of the proposed improvements your trees will be impacted by the construction within the allowable limits in the code. This tree can be found on the attached map along the shared property line and is listed as a 40 inch Oak. The developer has requested that I inform you, as the owner of the trees, of the impacts of the construction on the viability and longevity of these trees and what the expected outcomes for survivability are.

The installation of the silt fence, grading activities, and construction of the structure will impact the rooting zone of this tree by approximately 17 percent (20 percent max is allowable). These impacts without tree care may cause this tree to decline within the next 15 years. However, ACME is proposing to provide your tree with care to offset these impacts. This care plan is also detailed in the included letter. If followed the proposed care will offset the impacts to the trees rooting system and increase its chances of survival.

Based upon the above information ACME has asked me to provide you with the below options. He is willing to work with you in any way to resolve this situation to both parties benefit. If none of the options below suit you please feel free to contact me in order to discuss additional options or for more information. If you are in agreement with any of the options below please place your initials in the space provided to the left of the option(s). I have also provided a line at the bottom for you to sign and print your name. Your initials and signature will constitute an agreement between yourself and ACME and allow access to your property by the tree care company and project Arborist. I have also placed an asterisk (*) in front of the options that are favored by ACME.

Options

*___1. You understand the Oak identified above and on the attached map will be impacted by the construction but are agreeing to have ACME implement the tree care plan provided for your review from a qualified and professional tree care company under the supervision of the Tree Care R US, Inc.

____2.You understand the Oak identified above and on the attached map will be impacted by the construction and you do not want any tree care to be provided to this tree.

If you agree to option 1 you will be provided with a Hold Harmless agreement to complete and sign.

Once you have completed this letter please return it to me by scanning and emailing it to Arborist@treecarerus.com or by postal mail at 5 Oak Tree Lane, Alpharetta, Georgia 30022.

Thank you and please let me know if you have any questions. I can be contacted by email at Arborist@treecarerus.com or by phone at (770) 867-5309.

Sincerely,

Arborist
ISA Certified Arborist: SO-0A

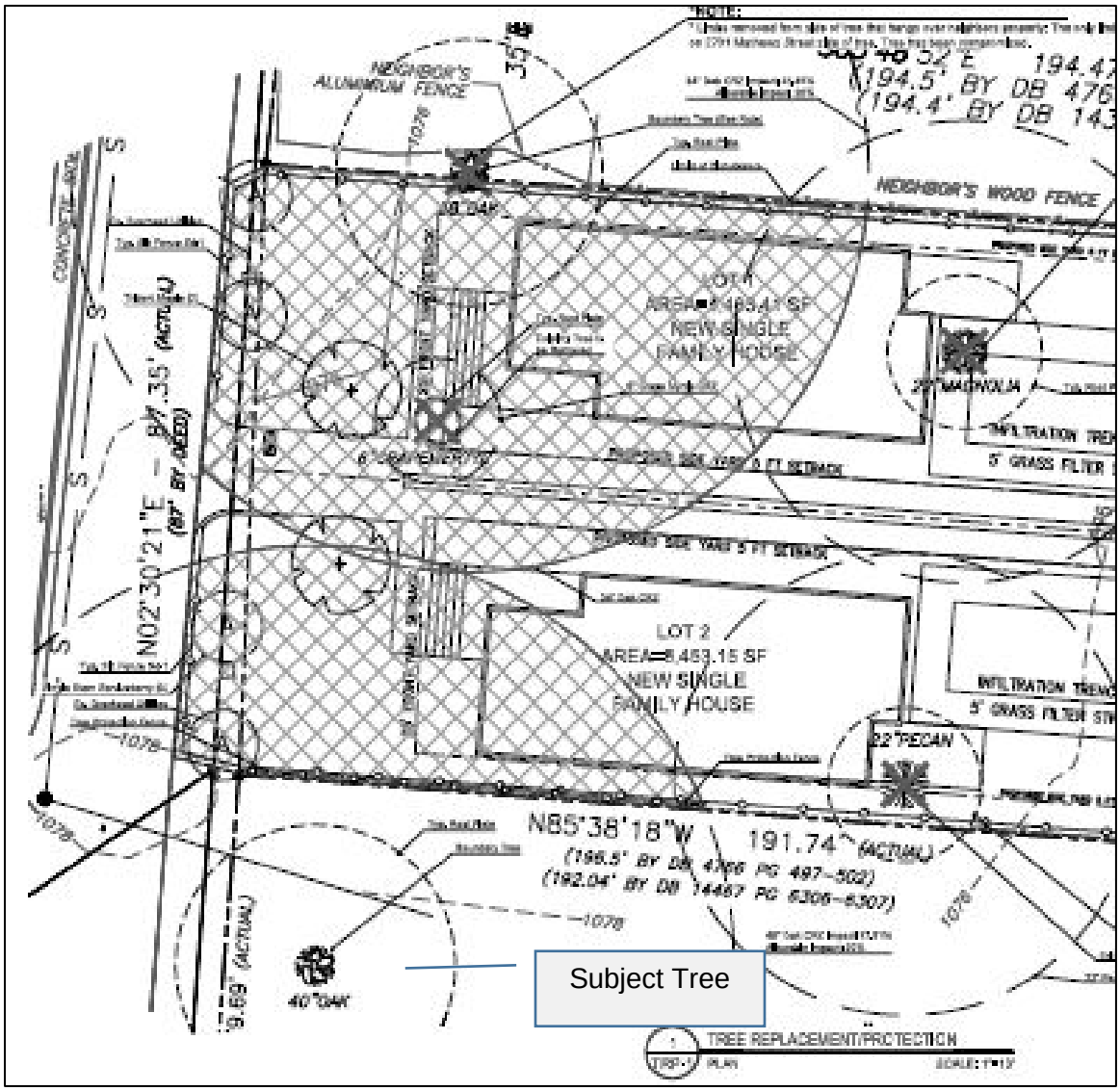
Owner/Developer of ACME Home Builders

Signature Print Name Date

Boundary Tree Owner 1 Alpharetta Avenue
Please sign, print, and date on the line below

Signature Print Name Date

Tree Location Map



Example B

May 9, 2019

Jane Doe
1 Alpharetta Avenue
Alpharetta, Georgia 30009

Re: 3 Alpharetta Avenue New Construction

To whom it may Concern;

I am writing on behalf of ACME Home Builders (ACME), the developer of the property at 3 Alpharetta Avenue which is located directly to the north of your property. On May 5, 2019 I performed an assessment of the trees located on the subject property per the City of Alpharetta requirements. During this inspection four (4) boundary trees were identified on your property. Based upon the location of these trees and the location of the proposed structure these trees will be impacted by the construction. These trees can be found on the attached map along the shared property line and are a 17" Maple, 22" Pine, 23" Pine, and another 22" Pine shown from Alpharetta Avenue. The developer has requested that I inform you, as the owner of the trees, of the impacts of the construction on the viability and longevity of these trees and what the expected outcomes for survivability are.

The installation of the silt fence, grading activities, and construction of the structure will impact the rooting zones of the three (3) pine trees. The roots that keep the tree alive are found within the critical root zone (CRZ) and the roots that keep them standing are the structural root plate (SRP). Currently ACME is proposing to retain the 17" Red maple by minimizing the impacts to the rooting zones and providing tree care to offset these impacts.

I believe the proposed encroachment into the CRZ and SRP of the pines is greater than 40%. The removal and/or damage to this amount of roots will severely impact these trees. After construction these trees are not expected to be viable for more than five (5) years. Additionally, the encroachment into the SRP has a high likelihood of making these trees unstable. The most probable direction of failure for these trees, after construction, would be to the west falling towards your property.

I believe the impacts to the Red maple will not be structural in nature and can be minimized with a specialized tree care plan. In addition to the tree care plan the means and methods of construction will be submitted and approved by the City of Alpharetta Arborist. These techniques will be designed to have the least impacts to the trees.

Based upon the above information ACME has asked me to provide you with the below options. They are willing to work with you in any way in order to resolve this situation to both parties benefit. If none of the options below suit you please feel free to contact me in order to discuss additional options or for more information. If you are in agreement with any of the options below please place your initials in the space

provided to the left of the option(s). I have also provided a line at the bottom for you to sign and print your name. Your initials and signature will constitute an agreement between yourself and ACME in relation to the four (4) trees. I have also placed an asterisk (*) in front of the options that are favored by ACME.

Pine Trees

*___1. You understand that the three (3) pine trees identified above and on the attached map will be impacted by the construction and are allowing the developer, at no cost to you, to remove these three (3) pine trees from your property.

____2. You understand that the three (3) pine trees identified above and on the attached map will be impacted by the construction. These impacts will affect the SRP and possibly make these trees unstable as well as negatively impact the health of the trees. Based upon this knowledge you are allowing ACME to encroach into the CRZ and SRP and leave these trees standing on your property. If you agree to this option you will be provided with a Hold Harmless agreement to complete and sign.

Red Maple

____1. You understand the red maple identified above and on the attached map may be impacted by the construction and are allowing the developer, at no cost to you, to remove the red maple from your property.

*___2. You understand the red maple identified above and on the attached map may be impacted by the construction but are agreeing to have ACME retain the maple tree and work around it in a during the proposed construction with the least amount of impacts possible to the rooting zones of this tree. You are also agreeing to allow ACME to implement a tree care plan from a qualified and professional tree care company.

Once you have completed this letter please return it to me by scanning and emailing it to Arborist@treecarerus.com or by postal mail at 5 Oak Tree Lane, Alpharetta, Georgia 30022.

Thank you and please let me know if you have any questions. I can be contacted by email at Arborist@treecarerus.com or by phone at (770) 867-5309.

Sincerely,

Arborist
ISA Certified Arborist: SO-0A

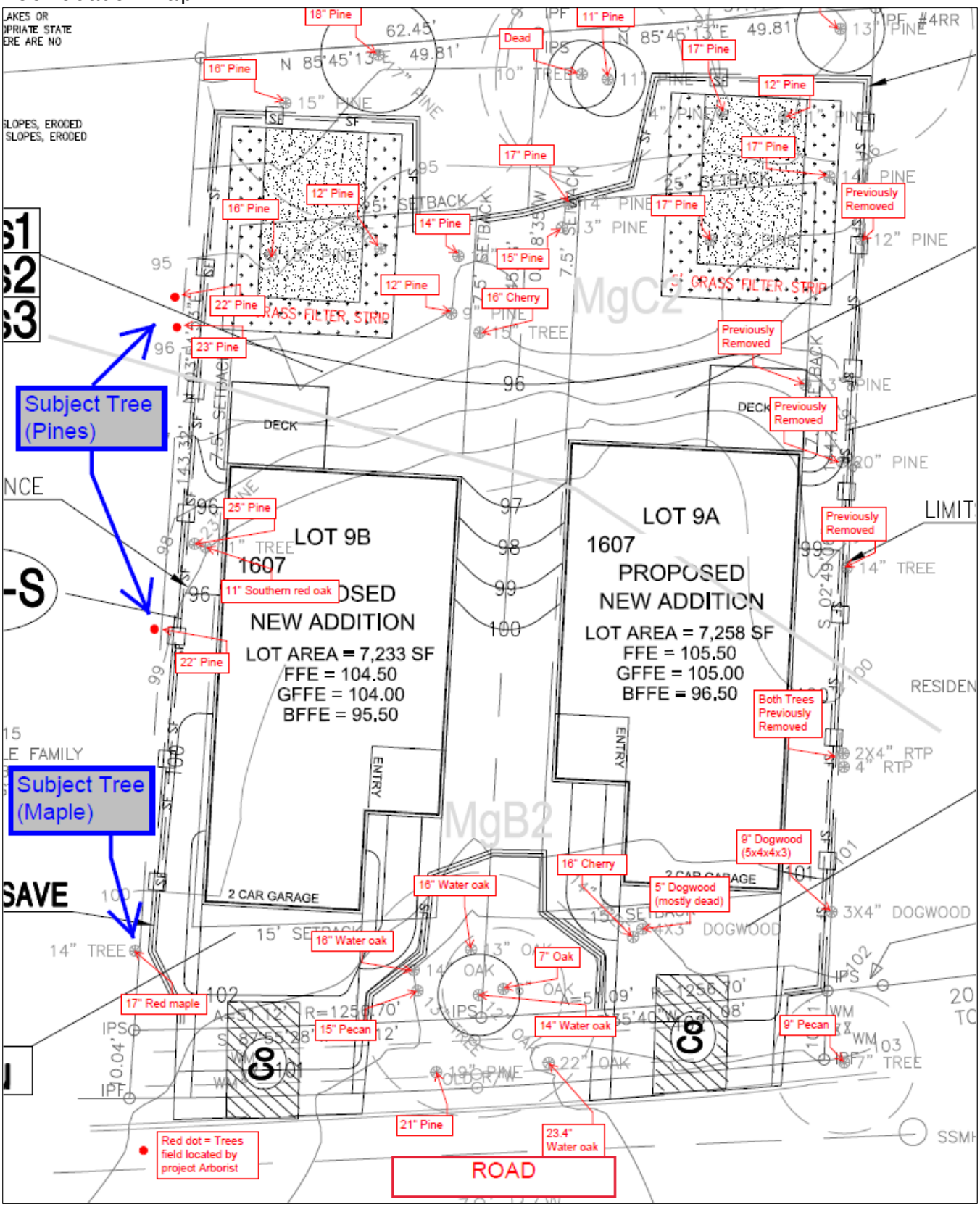
Owner/Developer of ACME Home Builders

Signature Print Name Date

Boundary Tree Owner 1 Alpharetta Avenue
Please sign, print, and date on the line below

Signature	Print Name	Date

Tree Location Map



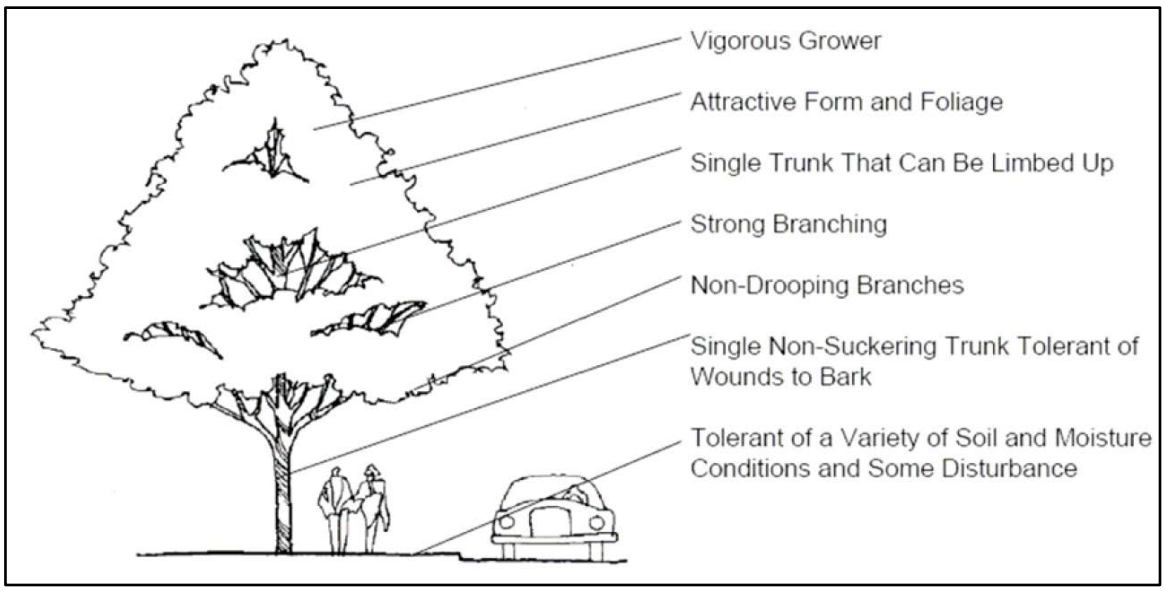
Landscape Design Guidelines

1. Tree Selection
    a. It is recommended to use the City of Alpharetta Tree List when selecting trees for planting.
        i. No more than 25% of any one genus may be included in any replanting plan.
        ii. Greater than 50% of all trees planted shall be native tree species.
        iii. It is recommended to include at least 40% overstory trees in any replanting plan
    b. Trees should be chosen that are of a high quality and able to grow into a specimen tree.
        i. Free of disease and pests
        ii. A Single main leader
        iii. Good form and structure
        iv. Solid root ball
        v. Overstory trees shall be a minimum of 6 feet tall and have a minimum trunk caliper of 2 inches
        vi. Understory trees shall be a minimum of 4 feet tall and have a minimum trunk caliper of 2 inches.
    c. Trees should be selected that are ecologically compatible with the site conditions such as:
        i. Soil moisture
        ii. Sunlight
        iii. Rooting space and soil volume
    d. Trees should also be selected that are compatible with the built environment based upon size, form, and structure.
        i. Georgia Power: Planting the Right Tree in the Right Place:
            1. https://www.georgiapower.com/in-your-community/includes/planting-guide.html
        ii. National Arbor Day Foundation: The Right Tree in the Right Place:
            1. https://www.arborday.org/trees/righttreeandplace/

2. Streetscape and Landscape Strips
    a. The City wants to promote tree lined streets therefore, a minimum of ten (10) feet wide landscape strip shall be provided along all public right-of-ways and private roads. Main streets which are listed below shall have twenty (20) foot landscape strips, except those located within the Downtown Overlay District, which shall have ten (10) feet wide landscape strips or landscaping as approved by the Director.

        iii. MAIN STREETS:
            1. Highway 9
            2. Mansell Road
            3. Windward Parkway
            4. Northpoint Parkway
            5. Westside Parkway
            6. Old Milton Parkway
            7. Haynes Bridge Road
            8. Kimball Bridge Road

    b. Actual spacing of street trees is based on the average canopy spread of the species selected as detailed in the Tree List.
    c. If the spacing of shade trees exceeds 25 feet on center it is recommended to fill in the gaps between each shade tree with understory trees.
    d. Spacing of shade trees shall not exceed 40 feet on center.
    e. Shade trees shall be a minimum 4" caliper; ornamental trees shall be a minimum 3" caliper. The use of a combination of shade trees and ornamental trees is recommended.
    f. It is desirable to plant trees and shrubs within the beauty strip along roadways to provide a separation between pedestrians and vehicular traffic.
    g. Street trees shall be pruned or have a clear trunk to a minimum height of 7 feet.
    h. For commercial development and for master plan subdivisions, a minimum of five (5) foot landscape strip shall be provided along all property lines which do not adjoin a public right-of-way or private road. One (1) shade tree, minimum 4" caliper, shall be provided for every fifty (50) linear feet of landscape strip. For master plan subdivisions, this requirement is only required along the external property line of the overall project.
    i. Shrubs shall be provided in all landscape strips. Shrubs shall be a minimum of 2 feet tall at time of planting. Shrubs located in landscape strips may be used to meet the parking lot screening requirement.
    j. Street lights and pedestrian lights shall not conflict with tree locations and shall be a minimum of 20 feet away from a tree where practical.


Vigorous Grower
Attractive Form and Foliage
Single Trunk That Can Be Limbed Up
Strong Branching
Non-Drooping Branches
Single Non-Suckering Trunk Tolerant of Wounds to Bark
Tolerant of a Variety of Soil and Moisture Conditions and Some Disturbance

3. Parking Lot Landscaping
    a. Surface parking lots shall provide a minimum 200 square foot wide landscape island at the end of each parking bay, and a 200 square foot island located each 72 feet of single parking length.
    b. Each landscape island shall be planted with one shade tree and excavated to 3 feet deep or to a depth 6 inches greater than the height of the root ball and backfilled with a minimum of 600 cubic feet of friable soil.
    c. Islands that are 400 square feet or larger and corner islands shall be planted with a large overstory tree.
    d. Parking lot trees must be 2" caliper minimum at time of planting and have a clear trunk to a minimum height of 6 feet.
    e. The remainder of a landscape island shall be planted with shrubs, ornamental grasses, and ground covers; and mulch shall be applied. Turf grass will not be accepted.
    f. Utilities and lighting shall not be allowed within required parking lot landscape islands or other areas trees are planted and shall not conflict with tree locations.
    g. The required tree area shall be protected against compaction and shall provide sufficient area for tree growth.
    h. Trees planted at the head of any parking stalls must be located in line with the parking stall striping to prevent damaging the trunks of the trees by cars.
    i. Trees shall be maintained in accordance with best management practices as defined by the International Society of Arboriculture guidelines.
    j. Shrubs shall be provided to screen paved areas and parking lots from the public right of way, private drives and adjacent property year round. Shrubs shall be 2 feet tall at time of planting, 2 rows deep and shall provide a screen within 3 years of planting.
    k. Alternate landscape configurations may be approved if the Director determines that the alternate design exceeds the standards above. An alternate configuration could include a stormwater component or the preservation and enhancement of existing trees which are provided above and beyond other tree preservation requirements; which are deemed of community value by the Director; and shall result in a minimum of 50% parking lot canopy coverage within 15 years.

Example Parking Lot Layouts and Configurations:

4. Screening Requirements
    a. Additional screening shall be provided around all utility areas, detention facilities, dumpster / refuse areas, drive through areas, loading and unloading zones, etc. to screen views from the public right of way, private roads, drives, and adjacent properties year round. Screening shall be provided in any combination of the standards below or as approved by the Director.
        iv. Plant selection will consist of eighty (80) percent evergreen species and twenty (20) percent deciduous species;
        v. Deciduous trees must be a minimum of 2 inch caliper at time of installation;
        vi. Evergreen trees must be a minimum of 6 foot tall at time of installation;
        vii. Shrubs must be a minimum of 4 foot tall at time of installation;
        viii. Screening for detention facilities must incorporate an alternating double row of evergreen shrubs 4 foot tall at time of planting.
        ix. A combination of decorative walls, fences, and landscape material may be used with the approval of the Director.

5. Buffers
    a. Except as otherwise provided, herein, buffer strips shall be preserved in their natural undisturbed state, except that sparsely planted buffers shall be enhanced with additional plant material. Enhancement plants must provide an opaque screen within two (2) years of planting and must consist of trees, shrubs, and groundcover plants meeting the following standards:
        x. Plant selection will consist of eighty (80) percent evergreen species and twenty (20) percent deciduous species;
        xi. Deciduous trees must be a minimum of 2 inch caliper at time of installation;
        xii. Evergreen trees must be a minimum of 9-10 foot tall at time of installation;
        xiii. Shrubs must be a minimum of 3 foot tall at time of installation;
        xiv. Plants will be spaced a maximum of eight (8) feet on center or as approved by the Director;
        xv. Plantings shall be designed with plant pallet containing a mixture of colors, textures, and heights.
    b. Undisturbed buffers shall not contain any surface parking or storm water, detention facilities, or any structures except that the Director may approve underground facilities within the buffer or the crossing of the buffer for the purpose of extending utilities.
    c. Stream buffers must be replanted where disturbed for approved access, detention and utility crossing. Replacement plantings must be native and be arranged to have a natural appearance and approved by the Arborist.

Tree List

The **City of Alpharetta Tree List** is intended to support the Unified Development Code, site planning and design activities for tree conservation and establishment, and tree maintenance planning and decision-making. In the list trees are arranged alphabetically by the tree's common name with the "genus" listed first. For example, red maple is listed as "Maple, Red" (maple is the genus name). The Latin name is also listed for more definitive species identification. In some cases, the commonly planted variety or cultivar of the species has also been included apart from the species. This is a recommended tree list and not a required tree list.

Key to Symbols and Tree Species Characteristic Descriptions

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
Species Common Name	**Entered with genus common name first, then species, then cultivar if applicable. For some species an alternate common name is included in parentheses.**
Latin Name	**Genus, species, and variety or cultivar; always italicized or underlined.**
CANOPY AREA FOR DEVELOPMENT CODE	
Square Feet of Canopy	**The total area projection of the crown onto the ground in square feet as typically achieved in urban situations with less than optimal growing conditions.**
Parking Lot Canopy Tree	**Trees approved for planting in parking lots.**
	1 = trees that will project significant shade, intercept enough water, substantially filter out pollutants, and survive the conditions within a parking area to the extent they could be considered a "canopy" tree.
	2 = the same as 1, except these trees are ONLY appropriate for large, expanded tree islands or landscape strips, swales, or moist soil conditions with plenty of rooting space.
Canopy Size Category	Very Small - 150 square feet with a 15 foot crown diameter
	Small – 400 square feet with a 25 foot crown diameter
	Medium – 900 square feet with a 35 foot crown diameter
	Large – 1,600 square feet with a 45 foot crown diameter
RECOMMENDED USES	
Level of Use	**The level of use that the tree should receive.**
	P = Plant New Trees and Conserve Existing Trees
	C = Conserve Existing Trees
	L = For Limited Planting or Conservation Only
	N = Do Not Plant
Large Landscape Areas **Road Frontages – Street** **Road Frontages – Yard** **Parking Lots** **Plazas and Downtown Settings** **Riparian Zones and Drainage Areas** **Utility Corridors**	**Recommendations on the site situation where the tree may be planted and/or conserved; locations where the tree would adapt well.** O = tree to avoid; not suitable Blank = may or may not be suitable x = good choice XX = excellent choice

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
PHYSICAL CHARACTERISTICS	
Height Class in Urban Conditions	**Height class (ground to tip of leader or tallest branch) of a mature tree commonly achieved in urban situations with less than optimal growing conditions.**
	S = Small: 15-25 feet
	M = Medium: 25-40 feet
	L = Large: 40 feet and taller
Crown Class in Urban Conditions	**The width of the crown (at its widest point) commonly achieved in urban situations with less than optimal growing conditions.**
	VS = Very Small (150 square feet with a 15 foot crown diameter)
	S = Small (400 square feet with a 25 foot crown diameter)
	M = Medium (900 square feet with a 35 foot crown diameter)
	L = Large (1,600 square feet with a 45 foot crown diameter)
Mature Crown Form	**General shape of the tree crown (leaves and branches) when fully leafed out.**
	Irregular
	Multi-Stemmed
	Oval (Columnar)
	Pyramidal
	Rounded
	Spreading
	Upright (Vase)
Typical Range of Mature Tree Height	**Typical range of height of tree in feet from ground to bud at tip of leader or tallest branch under various conditions.**
Typical Range of Mature Crown Width	**Typical range of spread of branches in feet at the widest diameter across the crown under various conditions.**
Leaf Type	**Persistence and type of leaf on the tree. Deciduous trees lose their leaves in the fall.**
	DB = Deciduous Broadleaf
	DC = Deciduous Conifer
	EB = Evergreen Broadleaf
	EC = Evergreen Conifer
Leaf Texture	**Relative size and appearance of leaves.**
	F = Fine
	M = Medium
	C = Coarse
Fall Leaf Color	**The typical color of the tree's fall foliage.**
	EV = evergreen
	BR = bronze or brown
	MA = maroon
	MU = multi-colored: maroon, red, orange, yellow
	OR = orange
	RE = red
	YE = yellow
	I = insignificant color change

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
PHYSICAL CHARACTERISTICS (continued)	
Flower Color	**For trees with showy flowers, indicates the typical flower color.**
	B = blue
	L = purple
	M = multiple colors: white, pink, purple, red, or others
	P = pink
	R = red
	W = white
	Y = yellow
	I = insignificant flowers: small with an unremarkable color
Flowering Time	**For trees with showy flowers, the general season of blooming for the species.**
Wildlife Value	**Indicates with an "X" if the tree produces flowers (nectar) or fruits that are consumed by insects, birds, or mammals.**
Excessive Litter	**Indicates with an "X" if the tree produces large or hazardous leaves, fruit, or other litter.**
ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES	
Native Tree to Alpharetta	**Indicates whether or not the tree is found naturally growing in the Alpharetta area.**
	Y = Yes
	N = No
Growth Rate	**Typical rate of growth under urban conditions.**
	S = Slow: 1/2 to 1-1/2 feet/year
	M = Moderate: 1-1/2 to 2-1/2 feet/year
	F = Fast: 2-1/2 to 3+ feet/year
Average Life Span	**The average life span (useful service life) of the species when growing under average urban conditions. A tree is at the end of its useful service life when its risk of failure becomes unacceptable and cannot be improved or when the tree is no longer an asset due to its appearance or condition.**
	S = Short: less than 25 years useful service life.
	M = Moderate: 25 to 40 years useful service life.
	L = Large: 50 years or greater useful service life.
Net Effect on Air Quality	**The net monetary effects in cents attributable to the species on air quality; listed as a benefit (positive) or cost (negative). Includes the species net effect on ozone, sulfur dioxide, nitrogen dioxide, particulate matter (PM10), and carbon monoxide.**
Soil Moisture	**The typical soil moisture conditions for the species in its native habitat.**
	H = Hydric: wet and may be occasionally flooded for short periods
	M = Mesic: moist but moderately well- to well-drained
	X = Xeric: dry and very well-drained

TREE CHARACTERISTIC	DESCRIPTION and ENTRY CHOICES
ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES (continued)	
Drought Tolerance	**Tolerance of the species to infrequent rain, low soil moisture, full sun, and high temperatures.**
	Low = not tolerant to drought conditions
	Moderate = tolerant to mild drought conditions; moderately tolerant to severe drought conditions
	High = very tolerant to mild to severe and prolonged drought conditions
Preferred Soil pH	**Relative soil acidity or alkalinity preferred by the species. In many cases, a range of pH preference is given if it was available. In other cases, a general level is given. A pH of 7.0 is neutral, a pH of less than 7.0 is acidic, and a pH of greater than 7.0 is alkaline.**
	ac = acidic (5.0 to 6.0)
	sl ac = slightly acidic (6.0 to 7.0)
	nu = neutral (7.0)
	sl al = sl alkaline (7.0 to 8.0)
	al = alkaline (8.0 to 8.5)
	n/a = no information available
Light Requirement	**The amount of sunlight the species prefers or will tolerate. Trees that are typically found in the understory or are characteristic of late forest successional stages prefer shade or at least partial shade, while trees that typically form the overstory or are characteristic of early successional stages prefer full sun.**
	FS = Full Sun
	PS = Partial Shade
	SH = Shade
Construction Tolerance/Limitations	**The broad tolerance of the species in its home range to construction damage, and the limitations that constrain a species tolerance to damage.**
Tolerance	P = Poor
	M = Moderate
	G = Good
Limitations	I = physical injury, wood compartmentalization and decay
	P = pest complications, including chronic and acute attacks
	S = soil conditions, including aeration and water availability
	C = limited climatic tolerances, including native range, hardiness, and micro-climate change
	A = all of the limitations described above
Urban Tolerant Tree	**Based upon other characteristics and tolerances to urban conditions; an "X" indicates the species is suitable for planting under "tough" urban conditions**

City of Alpharetta Tree List

COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE: Square Feet of Canopy	Canopy Size Category	RECOMMENDED USES: Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	PHYSICAL CHARACTERISTICS: Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	ENVIRONMENTALCHARACTERISTICS AND TOLERANCES: Native Tree to Alpharetta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Alder, Hazel (Tag)	*Alnus serrulata*	150	Very Small	P	XX					x	XX	x	S	VS	Multi-Stemmed	10-20	10-20	DB	M	YE	I				Y	F	S	n/a	W	M	acidic	FS	G/	X
Arborvitae, Eastern (Northern Whitecedar)	*Thuja occidentalis*	400	Small	L	x	0	x	0		x		0	M	S	Pyramidal	25-40	10-15	EC	F	EV	I		X		N	S	M	n/a	M	M	ac-alk	FS	G/	X
Arborvitae, Giant (Western Redcedar)	*Thuja plicata*	400	Small	L	x	0	x	0		XX		0	M	S	Pyramidal	50-75	15-20	EC	F	EV	I		X		N	M	M	n/a	H	M	ac-alk	FS	M/	X
Ash, Green	*Fraxinus pennsylvanica*	1,600	Large	P	XX	x	XX		x		x		L	L	Rounded	60-100	40-50	DB	M	MU	I		X		Y	F	M	0.090	W	H	sl ac-sl alk	FS	G/	
Ash, White	*Fraxinus americana*	1,600	Large	P	XX	x	XX		x		x		L	L	Rounded	50-80	30-60	DB	M	MA	I		X		Y	M	M	0.100	M	L	sl ac-sl alk	FS	M/IS	
Baldcypress	*Taxodium distichum*	900	Medium	P	x		XX			XX	XX		L	M	Pyramidal	50-100	20-50	DC	F	BR	I		X		N	M	L	0.032	M	H	ac-sl alk	FS	G/	X
Basswood, American (Linden)	*Tilia americana*	1,600	Large	C	x						x		M	L	Irregular	60-100	35-50	DB	C	YE	Y	Summer	X		Y	F	M	0.144	M	L	ac-alk	PS	P/A	
Beech, American	*Fagus grandifolia*	1,600	Large	P	XX					0	x		L	L	Oval	80-100	50-70	DB	M	YE	I		X		Y	S	L	0.160	M	L	acidic	FS	P/A	
Birch, River	*Betula nigra*	900	Medium	P	XX	x	XX	x	XX	XX	XX	0	M	M	Pyramidal	50-90	40-60	DB	F/M	YE	I				Y	F	M	0.117	M	L	acidic	PS	G/	
Birch, River 'Heritage'	*Betula nigra* 'Heritage'	900	Medium	P	XX	x	XX	x	XX	XX	XX	0	M	M	Pyramidal	50-90	40-60	DB	F/M	YE	I				Y	F	M	n/a	M	L	acidic	PS	n/a	
Blackgum (Tupelo)	*Nyssa sylvatica*	900	Medium	P	XX	x	XX				x		M	M	Oval	50-100	20-35	DB	M	RE	I		X		Y	S	M	-0.053	M	M	sl ac-sl alk	FS	G/	X
Boxelder	*Acer negundo*	900	Medium	C	x						x	0	L	M	Rounded	50-75	40-50	DB	M	YE	I		X		Y	F	S	0.036	W	M	adapt	FS	G/	
Buckeye, Bottlebrush	*Aesculus parviflora*	150	Very Small	P								x	S	VS	Multi-Stemmed	15-20	10-15	DB	M	YE	W	Summer	X		N	M	S	n/a	M	L	ac-adapt	SH	n/a	
Buckeye, Painted	*Aesculus sylvatica*	150	Very Small	P	x						x	x	S	VS	Rounded	15-25	5-15	DB	M	YE	P/Y	Spring	X		Y	M	S	n/a	M	L	ac-adapt	SH	n/a	
Buckeye, Red	*Aesculus pavia*	150	Very Small	P								x	S	VS	Rounded	10-15	10-15	DB	M	YE	R	Spring	X		N	M	S	n/a	M	L	ac	PS	M/I	
Buckthorn, Carolina	*Rhamnus caroliniana*	900	Medium	P	x	x	x				x		M	M	Oval	30-40	10-30	DB	M	OR	I		X		Y	M	S	n/a	M	M	ac-alk	FS	M/IS	
Buckthorn, Common	*Rhamnus cathartica*	900	Medium	L								x	S	M	Rounded	20-25	20-25	DB	M	YE	I		X		N	M	S	n/a	M	H	adapt	FS	n/a	X
Buttonbush, Common	*Cephalanthus occidentalis*	150	Very Small	P	x						x	x	S	VS	Multi-Stemmed	10-15	10-15	DB	M	YE	W	Late Summer	X		Y	M	S	n/a	W	L	n/a	FS	G/I	
Catalpa, Southern	*Catalpa bignonioides*	900	Medium	C	x	0		0			x		M	M	Rounded	30-40	30-40	DB	C	YE	W	Spring	X	X	Y	F	S	0.014	M	M	sl ac-sl alk	FS	G/	
Cedar, Deodar	*Cedrus deodara*	900	Medium	L	x								L	M	Pyramidal	40-100	40-100	EC	F	EV	I				N	M	L	-0.031	D	H	ac-sl alk	FS	g	
Cedar, Japanese	*Cryptomeria japonica*	900	Medium	L	x		x			x			L	M	Pyramidal	40-60	15-20	EC	F	EV	I				N	S	M	0.084	M	H	ac	FS	n/a	X
Chastetree (Vitex)	*Vitex agnus-castus*	150	Very Small	P		x	x	x	x			x	S	VS	Multi-Stemmed	15-20	10-20	DB	M	I	B/L/W	Summer	X		N	M	S	n/a	D	H	ac-alk	FS	n/a	X
Cherry, Black	*Prunus serotina*	900	Medium	C	x		x				x		L	M	Oval	50-90	15-50	DB	M	YE	W	Early Spring	X		Y	F	M	0.083	M	M	sl ac	FS	M/I	
Cherrylaurel, Carolina	*Prunus caroliniana*	900	Medium	C		0	x	0	0	XX	0		M	M	Oval	20-40	15-25	EB	M	EV	W	Spring	X		N	M	M	n/a	M	H	ac-sl alk	FS	G/	X
Cherry, Japanese Flowering	*Prunus serrulata*	400	Small	L			x		x	XX		XX	S	S	Rounded	20-30	20-30	DB	M	OR	P	Spring			N	F	S	0.013	M	L	ac-alk	FS	n/a	
Cherry, Yoshino	*Prunes x yedoensis*	400	Small	L			XX		XX	XX		XX	S	S	Rounded	20-45	20-40	DB	M	YE	P/W	Spring	X		N	F	S	n/a	M	L	ac	FS	n/a	
Chestnut, American	*Castanea dentata*	1,600	Large	N	susceptible to chestnut blight								L	L	-	-	-	-							Y									
Chestnut, Chinese	*Castanea mollissima*	1,600	Large	P	x		x						L	L	Rounded	40-60	40-60	DB	M	BR	W	Summer	X		N	S	L	n/a	D	M	ac-sl alk	FS	n/a	X
Chinaberry	*Melia azedarach*	900	Medium	N	invasive								M	M											N									
Chinquapin, Allegheny	*Castanea pumila*	400	Small	N	susceptible to chestnut blight								S	S	Rounded	10-25	10-25	DB	M	BR	I		X		Y	S	S	n/a	D	H	n/a	FS	P/P	
Cottonwood, Eastern	*Populus deltoides*	1,600	Large	C	x					0	x		L	L	Pyramidal	50-100	20-75	DB	C	YE	I		X	X	Y	F	M	-0.708	M	M	sl ac-sl alk	FS	G/	X
Crabapple, Japanese Flowering	*Malus floribunda*	400	Small	L		x	x		x	XX		XX	S	S	Rounded	15-25	15-25	DB	M	YE	P	Spring	X		N	M	S	n/a	M	L	sl ac-sl alk	FS	n/a	
Crabapple, Southern	*Malus angustifolia*	400	Small	C	x	x	x			x		XX	S	S	Spreading	20-25	10-20	DB	M	YE	P	Spring	X	X	Y	M	S	n/a	M	L	sl ac-sl alk	FS	M/ICP	
Crapemyrtle, Common	*Lagerstroemia indica*	150	Very Small	L	only permitted in utility corridors							x	S	VS	Multi-Stemmed	15-30	10-25	DB	F	RE	M	Summer			N	F	M	0.004	M	H	ac-sl alk	FS	n/a	X
Cypress, Leyland	*Cupressocyparis leylandii*	400	Small	L	x	0	x	x		x		0	M	S	Pyramidal	50-60	20-30	EC	F	EV	I				N	F	M	0.053	M	M	ac-alk	FS	g	
Devil's Walking Stick	*Aralia spinosa*	150	Very Small	C		0	0	0	0	x	XX		S	VS											Y									
Devilwood	*Osmanthus americanus*	400	Small	C	x		x						S	S	Rounded	15-25	10-15	DB	M	YE	W	Spring	X		Y	M	M	n/a	M	M		PS	M/I	
Dogwood, Flowering	*Cornus florida*	400	Small	P	XX	XX	XX	0	0	XX		XX	S	S	Spreading	15-30	15-30	DB	M	RE	W	Spring	X		Y	M	M	0.021	M	L	ac-nu	PS	M/IP	
Dogwood, Flowering Pink	*Cornus florida var. rubra*	400	Small	P	XX	XX	XX	0	0	XX		x	S	S	Spreading	15-30	15-30	DB	M	RE	P	Spring	X		Y	M	M	n/a	M	L	n/a	PS	n/a	
Dogwood, Kousa	*Cornus kousa*	400	Small	P		x	x			x		x	S	S	Rounded	10-20	10-20	DB	M	RE	W	Spring	X		N	S	S	n/a	M	L	ac	PS	n/a	
Dogwood, Swamp	*Cornus stricta*	400	Small	C	x						x	x	S	S	Rounded	10-25	10-25	DB	M	RE	W	Spring	X		Y	S	S	n/a	W	L	n/a	PS	G/I	
Elm, American	*Ulmus americana*	1,600	Large	C	x		x				x		L	L	Upright	50-100	30-70	DB	M	YE	I		X		Y	M	M	0.143	M	H	sl ac-sl alk	FS	M/P	
Elm, Chinese (Lace Bark)	*Ulmus parvifolia*	900	Medium	L	0	XX	XX	XX	XX	0	0		M	M	Upright	40-60	30-50	DB	F/M	YE	I				N	F	M	0.058	M	H	sl ac-sl alk	FS	n/a	X
Elm, Siberian	*Ulmus pumila*	900	Medium	N	pest susceptible; weed tree								L	M											N									
Elm, Slippery	*Ulmus rubra*	1,600	Large	C	x	x	x				x		L	L	Upright	70-80	30-50	DB	M	YE	I		X		Y	F	M	0.086	M	M	sl ac-sl alk	FS	M/P	
Elm, Winged	*Ulmus alata*	1,600	Large	P	XX	XX	XX	XX		0	0		L	L	Upright	70-80	30-50	DB	F	YE	I				Y	M	M	0.034	M	H	sl ac-sl alk	FS	G/	X
Flametree, Chinese (Bougainvillea)	*Koelreuteria bipinnata*	400	Small	P			x						M	S	Rounded	20-40	20-40	DB	M	YE	Y	Summer			N	M	M	n/a	M	H	sl ac-sl alk	FS	n/a	X
Fringetree (Grancy Gray Beard)	*Chionanthus virginicus*	150	Very Small	P	x	x	x			x		x	S	VS	Oval	10-30	5-15	DB	M/C	YE	W	Spring	X		Y	M	S	n/a	M	L	acidic	PS	M/IS	

City of Alpharetta Tree List

COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE		RECOMMENDED USES								PHYSICAL CHARACTERISTICS											ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES									
		Square Feet of Canopy	Canopy Size Category	Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	Native Tree to Alpharetta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Fringetree, Chinese	*Chionanthus retusus*	150	Very Small	P		x	x			x		x	S	VS	Rounded	15-25	10-15	DB	M/C	YE	W	Spring	X		N	S	S	n/a	M	M	acidic	PS	n/a	
Ginkgo (Female)	*Ginkgo biloba*	1,600	Large	L	x	0	x	0	0	0			M	L	Pyramidal	50-75	30-60	DB	C	YE	I			X	N	S	L	0.108	M	H	sl ac	FS	g	X
Ginkgo (Male)	*Ginkgo biloba*	1,600	Large	P	x	XX	XX	x	XX	0			M	L	Pyramidal	50-75	30-60	DB	C	YE	I				N	S	L	0.108	M	H	sl ac	FS	g	X
Goldenraintree	*Koelreuteria paniculata*	400	Small	P		x	x	x	x	x			M	S	Rounded	20-40	20-40	DB	M	YE	Y	Summer			N	M	M	-0.087	M	H	sl ac-sl alk	FS	n/a	
Hackberry, Common	*Celtis occidentalis*	1,600	Large	C	x		x				x		L	L	Spreading	60-90	25-60	DB	F/M	YE	I		X		Y	M	M	0.060	M	H	sl ac-sl alk	FS	n/a	X
Hackberry, Georgia	*Celtis tenuifolia*	1,600	Large	C	x		x				x		M	L	Spreading	25-35	25-35	DB	F/M	YE	I		X		Y	S	M	n/a	D	H	sl ac-sl alk	FS	M/IS	
Hawthorne, Washington	*Crataegus phaenopyrum*	400	Small	P		x	x		x			x	S	S	Rounded	10-30	5-25	DB	F	MU	W	Late Spring	X		N	S	S	0.017	M	M	sl ac-sl alk	FS	g	
Hemlock, Eastern	*Tsuga canadensis*	1,600	Large	C	x		XX	0	0	x		0	L	L											N									
Hickory, Bitternut	*Carya cordiformis*	1,600	Large	C	x	0	x	0	0				L	L	Oval	50-100	50-75	DB	M	YE	I		X		Y	F	L	0.069	M	L	acidic	FS	P/S	
Hickory, Mockernut	*Carya tomentosa*	1,600	Large	C	x	0	x	0	0				L	L	Oval	50-100	50-75	DB	M/C	YE	I		X	X	Y	S	L	0.059	D	H	sl ac	FS	MP/S	
Hickory, Pignut	*Carya glabra*	1,600	Large	C	x	0	x	0	0				L	L	Oval	50-100	50-75	DB	M	YE	I		X		Y	S	L	0.058	M	H	sl ac	FS	M/S	
Hickory, Sand	*Carya pallida*	1,600	Large	C	x	0	x	0	0				L	L	Oval	40-90	20-40	DB	M	YE	I		X		Y	S	M	n/a	D	H	sl ac	FS	M/	
Hickory, Shagbark	*Carya ovata*	1,600	Large	C	x	0	x	0	0				L	L	Oval	70-100	50-75	DB	M	YE	I		X		Y	S	L	0.064	M	M	sl ac	FS	P/S	
Hickory, Southern Shagbark	*Carya ovata var. australis*	1,600	Large	C	x	0	x	0	0				L	L	Oval	60-80	40-60	DB	M	YE	I		X		Y	S	L	n/a	M	M	sl ac	FS	n/a	
Holly, American	*Ilex opaca*	400	Small	P	x		XX	x		XX		0	M	S	Pyramidal	20-70	15-25	EB	M	EV	I		X		Y	S	L	0.013	M	H	acidic	PS	G/	X
Holly, Deciduous (Possumhaw)	*Ilex decidua*	150	Very Small	C	x		x				x	x	S	VS	Rounded	10-20	10-20	DB	F	I	I		X		Y	M	S	n/a	W	H	ac-alk	PS	G/	
Holly, Fosters	*Ilex x attenuata* 'Fosteri'	150	Very Small	P			x	x	x	x			S	VS	Pyramidal	15-25	10-15	EB	F/M	EV	I		X		N	S	S	n/a	M	H	sl ac	FS	n/a	X
Holly, Ornamental Variety	*Ilex* species	150	Very Small	L			x	x	x	x		x	S	VS	Rounded	10-20	10-15	EB	M	EV	I				N	S	S	n/a	M	H	ac	FS	n/a	
Holly, Savannah	*Ilex x attenuata* `Savannah'	150	Very Small	P	x		x	x	x	x		0	M	VS	Pyramidal	30-45	10-15	EB	M	EV	I		X		N	M	S	n/a	M	H	ac-sl alk	FS	n/a	
Holly, Yaupon	*Ilex vomitoria*	150	Very Small	P		x	x	x	x			x	S	VS	Irregular	10-25	5-10	EB	F	EV	I		X		Y	S	S	n/a	D	H	ac-alk	FS	G/	X
Honeylocust	*Gleditsia triacanthos*	900	Medium	C	x		x	0	0				L	M	Irregular	60-80	30-50	DB	F	YE	I				Y	F	S	0.009	M	H	sl ac-sl alk	FS	G/	X
Hophornbeam, American	*Ostrya virginiana*	900	Medium	P	x		x	x			x		M	M	Oval	15-40	10-30	DB	F/M	YE	W	Summer	X		Y	S	M	0.032	M	H	ac-alk	SH	M/S	X
Hornbeam, Am. (Ironwood, Blue Beech)	*Carpinus caroliniana*	900	Medium	P	XX	XX	XX	x	XX	XX	XX		M	M	Oval	20-35	15-30	DB	F/M	YE	I		X		Y	S	M	0.009	M	M	sl ac-sl alk	PS	M/SC	
Hornbeam, European	*Carpinus betulus*	900	Medium	P		XX	XX	XX	XX	x			M	M	Oval	40-60	35-40	DB	F/M	YE	I		X		N	S	M	0.037	M	H	ac-alk	PS	n/a	X
Hornbeam, Japanese	*Carpinus japonica*	400	Small	L		x	x	x	x	x			M	S	Oval	20-30	20-30	DB	M	RE	I				N	S	M	n/a	M	M	adapt	PS	n/a	
Katsuratree	*Cercidiphyllym japonicum*	900	Medium	L	x		x						M	M	Spreading	40-60	35-60	DB	M	YE	I				N	F	L	n/a	M	L	ac-sl alk	FS	pm	
Locust, Black	*Robinia pseudoacacia*	900	Medium	C	x			0	0		x		L	M	Spreading	40-90	20-40	DB	F	YE	W	Spring	X		Y	F	M	-0.123	M	H	sl ac-sl alk	FS	G/P	X
Magnolia, Cucumber	*Magnolia acuminata*	1,600	Large	C	x		x	0			x		L	L	Upright	60-80	20-60	DB	C	YE	W	Spring	X		Y	F	M	n/a	M	L	acidic	PS	M/I	
Magnolia, Japanese (Saucer)	*Magnolia x soulangiana*	900	Medium	L			x	0				x	M	M	Upright	20-30	10-30	DB	C	YE	P	Late Winter			N	M	S	0.009	M	L	acidic	FS	n/a	
Magnolia, Southern	*Magnolia grandiflora*	1,600	Large	P	XX		XX	0		XX		0	L	L	Pyramidal	80-100	30-50	EB	C	EV	W	Late Spring	X	X	Y	M	L	0.002	M	M	acidic	FS	M/I	
Magnolia, Southern 'Little Gem'	*Magnolia grandiflora* 'Little Gem'	150	Very Small	P			x	0		x		XX	M	VS	Pyramidal	40-60	20-30	EB	C	EV	W	Late Spring	X	X	Y	S	M	n/a	M	L	acidic	FS	n/a	
Magnolia, Star	*Magnolia stellata*	150	Very Small	L		x	x					x	S	VS	Multi-Stemmed	15-20	15-20	DB	M	YE	W	Late Winter	X		N	S	S	n/a	M	M	acidic	PS	n/a	
Magnolia, Sweetbay	*Magnolia virginiana*	900	Medium	P	XX		x			XX	XX		M	M	Oval	30-60	20-40	EB	C	EV	W	Summer	X		Y	F	M	n/a	W	L	acidic	PS	G/	
Maple, Amur	*Acer ginnala*	400	Small	P		x	x					x	S	S	Rounded	15-25	15-25	DB	M	RE	W	Spring			N	M	M	0.008	M	M	adapt	FS	n/a	
Maple, Chalk	*Acer leucoderme*	900	Medium	P	x	x	x	x		x			M	M	Spreading	20-40	10-30	DB	M	I	I				Y	M	M	n/a	M	H	ac-sl alk	FS	P/A	X
Maple, Hedge	*Acer campestre*	900	Medium	P		x	x	x		x			M	M	Rounded	25-35	25-35	DB	M	YE	I				N	S	S	0.017	M	H	ac-alk	FS	n/a	X
Maple, Japanese	*Acer palmatum*	400	Small	L	0		x	0				x	S	S	Oval	15-25	10-25	DB	M	RE	I				N	S	S	0.008	M	L	sl ac-sl alk	PS	n/a	
Maple, Norway	*Acer platanoides*	900	Medium	N	pest susceptible								M	M											N									
Maple, Red	*Acer rubrum*	900	Medium	P	XX	XX	XX	XX	XX	XX	XX	0	M	M	Rounded	40-90	20-35	DB	M	RE	R	Late Winter	X		Y	F	L	0.084	M	L	sl ac	FS	G/	
Maple, Silver	*Acer saccharinum*	1,600	Large	L	0		x	0	0				L	L	Rounded	50-80	40-60	DB	M	YE	I				N	F	S	0.084	M	H	ac	FS	P/A	
Maple, Southern Sugar (Florida Sugar)	*Acer barbatum*	900	Medium	P	XX	x	XX	x	XX	XX	x		M	M	Rounded	40-70	25-60	DB	M	OR	I				Y	M	M	n/a	M	H	ac	FS	M/IS	X
Maple, Sugar	*Acer saccharum*	1,600	Large	P	XX	XX	XX				x	0	L	L	Oval	60-80	30-50	DB	M	OR	I		X		Y	M	L	0.100	M	M	sl ac-sl alk	PS	pm	
Maple, Sugar 'Green Mountain'	*Acer saccharum* 'Green Mountain'	1,600	Large	P	XX	XX	XX					0	L	L	Oval	60-80	30-50	DB	M	OR	I		X		Y	F	L	0.100	M	M	sl ac-sl alk	PS	n/a	
Maple, Sugar 'Legacy'	*Acer saccharum* 'Legacy'	1,600	Large	P	XX	XX	XX					0	L	L	Oval	60-80	30-50	DB	M	OR	I		X		Y	F	L	0.100	M	M	sl ac-sl alk	PS	n/a	
Maple, Trident	*Acer buergeranum*	900	Medium	P	0	XX	XX	XX	XX	XX		x	M	S	Rounded	20-45	20-30	DB	M	MU	I				N	F	M	n/a	M	M	ac-alk	FS	n/a	X
Mimosa	*Albizia julibrissin*	900	Medium	N	pest susceptible; weed tree								M	M											N									
Mulberry, Red	*Morus rubra*	900	Medium	C	x	0		0	0		x		L	M	Rounded	40-70	20-50	DB	C	YE	I		X	X	Y	F	S	0.099	M	H	sl ac-sl alk	FS	G/	
Oak, Black	*Quercus velutina*	1,600	Large	C	x		x				x		L	L	Rounded	70-90	50-60	DB	M	RE	I		X		Y	M	L	-0.253	D	H	sl ac	FS	G/	

City of Alpharetta Tree List

COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE: Square Feet of Canopy	CANOPY AREA FOR DEVELOPMENT CODE: Canopy Size Category	RECOMMENDED USES: Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	PHYSICAL CHARACTERISTICS: Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES: Native Tree to Alpharetta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Oak, Cherrybark	*Quercus falcata var. pagodifolia*	1,600	Large	P	x		x				x		L	L	Rounded	60-100	30-50	DB	M	RE	I		X		Y	M	L	n/a	M	M	ac	FS	G/	
Oak, Chestnut	*Quercus prinus*	1,600	Large	P	x	0	XX	0	0		0		L	L	Rounded	50-80	30-60	DB	M	RE	I		X	X	Y	S	L	-0.342	D	H	acidic	FS	GM/S	
Oak, Diamond Leaf (Laurel)	*Quercus laurifolia*	1,600	Large	P	x	x	x						L	L	Rounded	60-80	50-60	DB	M	YE	I		X		N	M	L	n/a	M	M	ac-sl alk	FS	G/	
Oak, English	*Quercus robur*	1,600	Large	L		x	x						L	L	Rounded	40-60	40-60	DB	M	BR	I		X		N	S	M	-0.275	M	M	sl ac-sl alk	FS	n/a	
Oak, Georgia	*Quercus georgiana*	1,600	Large	L	x		x						L	L	Rounded	20-40	10-30	DB	M	BR	I		X		Y	M	M	n/a	D	H	ac-alk	FS	n/a	
Oak, Laurel	*Quercus hemisphaerica*	1,600	Large	P	x	x	x						L	L	Rounded	60-90	50-60	DB	M	BR	I		X		N	F	M	-0.314	D	H	adapt	FS	n/a	
Oak, Laurel 'Darlington'	*Quercus hemisphaerica* 'Darlington'	1,600	Large	P	x	XX	XX						L	L	Rounded	60-90	50-60	DB	F	BR	I		X		N	F	M	n/a	D	H	adapt	FS	n/a	
Oak, Live	*Quercus virginiana*	1,600	Large	C	out of range								L	L											N									
Oak, Northern Red	*Quercus rubra*	1,600	Large	P	XX	x	XX						L	L	Rounded	60-100	30-60	DB	M	RE	I		X		Y	F	L	-0.503	M	M	ac-sl ac	FS	GM/SC	
Oak, Nuttall	*Quercus nuttalli*	1,600	Large	P	x	x	x						L	L	Rounded	60-80	35-50	DB	M	RE	I		X		Y	M	L	n/a	M	M	ac	FS	n/a	
Oak, Oglethorpe	*Quercus oglethorpensis*	1,600	Large	C	x	x	x						M	L	Rounded	40-70	30-50	DB	M	RE	I		X		Y	S	M	n/a	W	M	n/a	FS	n/a	
Oak, Overcup	*Quercus lyrata*	1,600	Large	P	XX	XX	XX				x		L	L	Rounded	30-45	30-45	DB	M	BR	I		X		Y	M	L	-0.159	W	M	ac-sl alk	FS	G/	
Oak, Pin	*Quercus palustris*	1,600	Large	L	0	x	x	0	0		0		L	L	Pyramidal	40-100	20-50	DB	M	RE	I		X		N	M	M	-0.483	M	M	acidic	FS	mg	
Oak, Post	*Quercus stellata*	1,600	Large	L	x	x	XX						L	L	Rounded	40-50	35-40	DB	M/C	BR	I		X		Y	M	L	-0.327	D	H	ac-sl alk	FS	G/	
Oak, Sawtooth	*Quercus acutissima*	1,600	Large	L	0	0	x	0	0		0		M	L	Oval	50-60	30-60	DB	M	YE	I		X	X	N	F	M	-0.159	M	M	ac-sl alk	FS	n/a	
Oak, Scarlet	*Quercus coccinea*	1,600	Large	P	XX	XX	XX	x	x				L	L	Rounded	50-80	30-50	DB	M	RE	I		X		Y	M	L	-0.592	D	H	sl ac	FS	G/	
Oak, Shumard	*Quercus shumardii*	1,600	Large	P	XX	XX	XX	XX	XX				L	L	Rounded	60-100	30-70	DB	M	RE	I		X		Y	F	L	-0.265	M	H	ac-alk	FS	G/	
Oak, Southern Red	*Quercus falcata*	1,600	Large	P	XX	x	XX				x		L	L	Rounded	60-100	30-70	DB	M	OR	I		X		Y	M	L	-0.576	M	H	ac	FS	G/	
Oak, Swamp Chestnut	*Quercus michauxii*	1,600	Large	P	x	0	x	0	0		x		L	L	Oval	70-90	30-60	DB	M	YE	I		X		Y	M	L	-0.544	M	M	n/a	FS	G/	
Oak, Swamp White	*Quercus bicolor*	1,600	Large	P	x	x	x				x		L	L	Oval	70-90	30-60	DB	M	YE	I		X		Y	M	L	-0.457	M	M	n/a	FS	G/	
Oak, Water	*Quercus nigra*	1,600	Large	P	XX	x	XX				XX	0	L	L	Rounded	50-100	30-70	DB	M	YE	I		X		Y	F	M	-0.451	M	M	ac-sl alk	FS	G/	
Oak, White	*Quercus alba*	1,600	Large	P	XX	x	XX						L	L	Rounded	60-100	30-80	DB	M	RE	I		X		Y	S	L	-0.348	M	M	acidic	FS	GM/S	
Oak, Willow	*Quercus phellos*	1,600	Large	P	XX	XX	XX	XX	XX	0	XX	0	L	L	Rounded	40-100	30-60	DB	F/M	YE	I		X		Y	F	L	-0.314	M	H	acidic	FS	GM/S	X
Orange, Osage	*Maclura pomifera*	900	Medium	L	x	0	x	0	0		0		M	M	Spreading	30-40	30-40	DB	M/C	YE	I		X	X	N	F	L	0.000	D	H	sl ac-sl alk	FS	n/a	X
Parrotia	*Parrotia persica*	400	Small	L		x	x					x	S	S	Rounded	20-40	20-35	DB	M	OR	R	Spring			N	F	S	n/a	M	M	ac-sl alk		n/a	
Pear, Callery	*Pyrus calleryana*	900	Medium	C	defective branch structure								M	M	Oval								X	X	N									
Pear, Common	*Pyrus communis*	900	Medium	C	x	0	x	0	0	0		0	M	M	Oval	35-45	35-50	DB	M	MA	W	Spring	X	X	N	F	M		M	L	sl ac-sl alk	FS	M/S	
Pecan	*Carya illinoensis*	1,600	Large	P	x	0	x	0	0	0			L	L	Upright	60-100	30-75	DB	M/C	YE	I		X	X	N	S	M	0.088	M	L	sl ac-sl alk	FS	mg	
Persimmon, Common	*Diospyros virginiana*	900	Medium	P	x	0	x	0	0		x		L	M	Oval	70-80	40-60	DB	M	RE	I		X	X	Y	M	S	0.058	M	H	ac-alk	FS	G/P	X
Pine, Eastern White	*Pinus strobus*	1,600	Large	C	not heat tolerant								L	L											N									
Pine, Loblolly	*Pinus taeda*	1,600	Large	P	XX	x	x	XX		XX	x	0	L	L	Pyramidal	80-100	20-40	EC	F	EV	I		X		Y	F	M	0.016	M	M	acidic	FS	G/	
Pine, Longleaf	*Pinus palustris*	1,600	Large	C			x	x		x	0		L	L	Pyramidal	60-100	20-40	EC	F	EV	I		X		N	M	L	0.010	M	H	ac-sl alk	FS	GM/C	
Pine, Shortleaf	*Pinus echinata*	1,600	Large	P	XX	x	x	x		x	x	0	L	L	Pyramidal	60-100	20-40	EC	F	EV	I		X		Y	M	L	0.008	M	H	ac	PS	GM/P	
Pine, Slash	*Pinus elliotii*	1,600	Large	C			x	x		x	0		L	L	Pyramidal	60-100	20-50	EC	F	EV	I		X		N	F	M	0.010	M	M	ac-sl alk	FS	G/	
Pine, Virginia	*Pinus virginiana*	900	Medium	P	x		x	x		XX	x		M	M	Pyramidal	15-70	10-35	EC	F	EV	I		X		Y	F	S	0.003	M	H	ac	FS	G/	X
Pistache, Chinese	*Pistacia chinensis*	900	Medium	L		x	XX	x	x	x	0		M	M	Rounded	60-80	40-50	DB	M	RE	G	Spring	X		N	M	M	n/a	M	H	ac-alk	FS	n/a	X
Planetree, London	*Platanus x acerifolia*	1,600	Large	P	x	XX	XX	XX	x				L	L	Irregular	60-100	20-80	DB	C	YE	I				N	F	M	-0.415	M	H	sl ac-sl alk	FS	pg	X
Plum, Chickasaw	*Prunus angustifolia*	150	Very Small	C	x	0	x			x		x	S	VS	Rounded	10-20	10-20	DB	F	I	W	Late Winter	X		Y	M	S	n/a	M	H	sl ac-sl alk	FS	M/IS	
Plum, Purpleleaf	*Prunus cerasifera*	400	Small	L		x	x			XX		x	S	S	Rounded	10-25	10-25	DB	F	RE	P/W	Spring	X		N	M	S	0.014	M	M	sl ac-sl alk	FS	mg	
Poplar, Lombardy	*Populus nigra var. italica*	900	Medium	N	not heat tolerant								L	M											N									
Poplar, White	*Populus alba*	900	Medium	C			x						L	M	Oval	40-100	20-60	DB	C	YE	I				N	F	M	-0.417	M	H	ac-alk	FS	n/a	
Poplar, Yellow (Tuliptree)	*Liriodendron tulipifera*	1,600	Large	P	XX		x				XX	0	L	L	Oval	80-150	30-60	DB	C	YE	Y	Spring	X		Y	M	L	0.171	M	L	sl ac	FS	P/IS	
Redbud, Eastern	*Cercis canadensis*	400	Small	P	XX	XX	XX		XX	XX	x	XX	S	S	Spreading	25-50	15-25	DB	M	YE	P	Spring	X		Y	F	S	0.012	M	M	ac-sl ac	PS	M/S	
Redbud, Eastern White	*Cercis canadensis var. alba*	400	Small	P	x	XX	XX		XX	x	x	XX	S	S	Spreading	20-30	15-25	DB	M	YE	W	Spring	X		Y	F	S	n/a	M	M	ac-sl ac	PS	n/a	
Redbud, 'Forest Pansy'	*Cercis canadensis* 'Forest Pansy'	400	Small	P	x	XX	XX		XX	x	x	XX	S	S	Spreading	20-30	15-25	DB	M	YE	P	Spring	X		Y	F	S	n/a	M	L	ac-sl ac	PS	n/a	
Redbud, 'Oklahoma'	*Cercis reniformis* 'Oklahoma'	400	Small	P		XX	XX	x	XX			XX	S	S	Rounded	20-25	15-20	DB	M	YE	P	Spring	X		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	X
Redbud, 'Texas White'	*Cercis reniformis* 'Texas White'	400	Small	P		XX	XX	x	XX			XX	S	S	Rounded	20-25	15-20	DB	M	YE	W	Spring	X		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	
Redcedar, Eastern	*Juniperus virginiana*	900	Medium	P	x		XX	x		XX	x	0	M	M	Pyramidal	40-60	10-20	EC	F	EV	I		X		Y	S	M	-0.010	M	H	ac-nu	FS	M/IS	

City of Alpharetta Tree List

COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE: Square Feet of Canopy	Canopy Size Category	RECOMMENDED USES: Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	PHYSICAL CHARACTERISTICS: Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES: Native Tree to Alpharetta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Redwood, Dawn	*Metasequoia glyptostroboides*	900	Medium	P	x		XX	x		XX			L	M	Pyramidal	75-100	25-30	DC	F	BR	I				N	F	L	0.163	M	M	n/a	FS	n/a	X
Royal Paulownia (Princess-Tree)	*Paulownia tomentosa*	900	Medium	C		0	x	0	0		0		M	M	Irregular	30-50	20-50	DB	C	YE	P	Spring		X	N	F	S	0.022	M	M	ac-sl alk	FS	g	
Sassafras	*Sassafras albidum*	900	Medium	C	x		x			x	x		M	M	Oval	30-60	20-40	DB	M	OR	Y	Spring	X		Y	M	M	0.069	M	H	sl ac	FS	G/	
Serviceberry, Downy	*Amelanchier arborea*	400	Small	P	XX	XX	XX		XX	XX	x	x	S	S	Irregular	15-40	10-20	DB	M	OR	W	Spring	X		Y	S	M	0.004	M	M	acidic	PS	M/IS	
Silverbell, Carolina	*Halesia tetraptera*	900	Medium	P	XX	x	x				x		M	M	Irregular	30-60	20-35	DB	M	YE	W	Spring			Y	M	M	n/a	M	L	ac-sl alk	PS	M/ISC	
Silverbell, Two-Winged	*Halesia diptera*	400	Small	L	XX	x	x				x	XX	S	S	Rounded	15-20	15-20	DB	M	YE	W	Spring	X		N	M	M	n/a	M	M	ac-sl alk	PS	M/SC	
Smoketree, American	*Cotinus obovatus*	150	Very Small	L			x					x	S	VS	Oval	15-30	10-25	DB	M	MU	P	Spring			Y	M	S	n/a	D	H	sl ac-sl alk	PS	n/a	X
Smoketree, Common	*Cotinus coggygria*	150	Very Small	L			x					x	S	VS	Oval	10-15	10-15	DB	M	MU	P	Late Spring			N	M	S	n/a	D	H	sl ac-sl alk	FS	n/a	X
Sourwood	*Oxydendrum arboreum*	900	Medium	C	XX		x						M	M	Spreading	30-60	20-30	DB	M	RE	W	Summer			Y	M	S	0.018	M	M	ac-sl ac	FS	P/A	
Sparkleberry, Tree	*Vaccinium arboreum*	150	Very Small	C			x				x	x	S	VS	Irregular	10-20	5-10	DB	F	RE	W	Late Spring	X		Y	S	S	n/a	M	M	ac-sl alk	S	M/A	
Spruce Varieties	*Picea* species	900	Medium	N	not heat tolerant								L	M											N									
Sugarberry	*Celtis laevigata*	1,600	Large	C	x		x			0	x		L	L	Spreading	60-80	25-60	DB	F/M	YE	I		X		Y	M	M	0.118	M	M	ac	FS	G/I	
Sweetgum	*Liquidambar styraciflua*	1,600	Large	C	x	0	x	0	0		x		L	L	Oval	60-80	40-60	DB	M	MU	I		X	X	Y	F	L	-0.488	M	L	sl ac	FS	G/	
Sycamore	*Platanus occidentalis*	1,600	Large	P	x		x				x	0	L	L	Oval	70-100	30-70	DB	C	BR	I			X	Y	F	M	-0.789	M	M	sl ac-sl alk	FS	G/	
Tallowtree, Chinese	*Sapium sebiferum*	900	Medium	N	invasive								M	M											N									
Tree-of-Heaven (Ailanthus)	*Ailanthus altissima*	900	Medium	N	brittle wood; invasive								M	M											N									
Walnut, Black	*Juglans nigra*	1,600	Large	C	x	0	x	0	0		x		L	L	Rounded	60-70	50-70	DB	M	YE	I		X	X	Y	M	L	0.086	M	L	acidic	FS	P/IS	
Waxmyrtle, Southern	*Myrica cerifera*	150	Very Small	P			x	x		x	0	x	S	VS	Multi-Stemmed	10-30	10-30	EB	F	EV	I		X		N	M	S	n/a	M	M	ac-alk	FS	G/	
Willow, Black	*Salix nigra*	900	Medium	C	x	0		0	0		x	0	M	M	Irregular	30-40	30-40	DB	F/M	YE	I				Y	F	S	-0.177	W	L	n/a	FS	G/	
Willow, Weeping	*Salix babylonica*	1,600	Large	L	x	0	x	0	0			0	L	L	Rounded	30-70	20-70	DB	F/M	YE	I				N	F	M	-0.096	W	M	acidic	FS	mg	
Winterberry, Common	*Ilex verticillata*	150	Very Small	P	x	x	x			x	x	x	S	VS	Multi-Stemmed	5-15	5-10	DB	M	I	I		X		Y	M	S	n/a	M	L	ac	FS	G/	
Witchhazel, Common	*Hamamelis virginiana*	400	Small	P	x		x		x		x	x	S	S	Spreading	20-35	20-35	DB	M/C	YE	Y	Fall			Y	M	M	-0.009	M	M	sl ac	PS	M/IS	
Yellowwood, American	*Cladrastis kentukea*	900	Medium	L	x		x						M	M	Upright	30-50	40-50	DB	M/C	YE	W	Spring			N	M	M	0.013	M	M	n/a	PS	P/A	
Zelkova, Japanese	*Zelkova serrata*	1,600	Large	L			x		x		0	0	L	L	Upright	40-80	30-75	DB	M	RE	I				N	M	M	0.084	M	H	ac-sl alk	FS	n/a	X

Informational Links

City of Alpharetta Details
http://www.alpharetta.ga.us/docs/default-source/planning-zoning/standard-arborist-plan-details.pdf?sfvrsn=14

City of Alpharetta Checklist for Plan Submittal
http://www.alpharetta.ga.us/docs/default-source/planning-zoning/arborist_checklist.pdf?sfvrsn=10

Georgia Forestry Commission
http://www.gfc.state.ga.us/

Georgia Urban Forest Council
http://www.gufc.org/

National Arbor Day Foundation
https://www.arborday.org/

University of Georgia Extension
http://extension.uga.edu/