



OCTOBER 28, 2013

AMERICAN BASSWOOD ASSESSMENT

TUPELO NATIVE PLANT SOCIETY

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To Whom It May Concern:

Enclosed is a report ordered by the Tupelo Native Plant Society based on my independent field investigation of the American Basswood, *Tilia americana*, located in front of the Tupelo Native Plant Society's headquarters. It has been prepared for the consideration of the boards of both the TNPS and the local Forestry Dept. I have included my assessment of the tree's current condition, as well as my recommendations for its future management and care.

Please feel free to contact me with any questions you may have about this report, or any other service we can provide.

Regards,
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SUMMARY

After **carpenter ant**ⁱ activity in a *Tilia americana* (American Basswood) was observed by members, I was contracted by the board of trustees of the Tupelo Native Plants Society (TNPS) to evaluate the structural stability of a **mature** American Basswood located in the front lawn of their headquarters. I performed a Level 2: Basic Tree Risk Assessmentⁱⁱ (BTRA) during which I collected samples of mushrooms I found in the **critical root zone**ⁱⁱⁱ which were sent in for identification.

Based on this level of evaluation, lab identification of the sample, historical significance of the tree, and site history according to the TNPS, I have determined that with the following mitigation, the tree can be preserved if maintained at an **acceptable risk**:

1. Removal^{iv} of the southeastern **leader** of the eastern **stem** with large cavity
2. Installment of additional support **cables**^v and **bonding**^{vi} along with current hardware into a tree lightning protection system^{vii} (TLPS) in accordance with **ANSI A300 Standards for Tree Care Operations**
3. **Crown Cleaning**^{viii} to remove of dead branches 2" and larger in **diameter** throughout the remaining canopy
4. Restriction of the CRZ to discourage pedestrian traffic^{ix}
5. Relocation of the Gazebo and picnic area outside of the **dripline**^x
6. Lawn is removed from CRZ and replaced with **organic mulch**^{xi}
7. Irrigation of root zone is adjusted to the requirements of a mature American Basswood
8. Annual re-inspection by a **qualified arborist**.^{xii}

Through a Level 3: Advanced Tree Risk Assessment^{xiii} (ATRA) more information could be gained that could change these recommendations. Through the use of a **Resistograph**TM around the decayed areas of the trunk we may gather data that could ease restrictions of the CRZ. Likewise, performing an aerial inspection of the canopy might yield information that could lengthen recommended **inspection intervals**, or call for **structural pruning** doses to mitigate previously unseen **hazards**.

INTRODUCTION

Background

On September 30th, 2013, I was contacted by Mrs. Mary Ducannon on behalf of the TNPS. She explained to me over the phone that a large American Basswood tree in front of their headquarters had raised some concern after ants had been observed moving to and from a large **cavity** in the tree. According to Mrs. Ducannon, the tree has been mature for over 80 years, it was hit by lightning 15 years ago, resulting in the death and removal of one of the main stems, and 5 years later the tree was pruned and cables were installed using lag bolts.

After discussing my terms of employment and **levels of assessment** with Mrs. Ducannon, I agreed to examine the tree and site on October 12th, 2013.

Assignment

During our Sept. 30th conversation, Mrs. Ducannon and I agreed that a Level 2: BTRA would be an appropriate starting point for this project and that I would provide a **booklet style report** for the local forestry board in the event that my recommendations included tree removal or **pruning** of live tissue from the tree.

During my visit to the site on Oct. 12, 2013, I collected a sample from mushrooms that I suspected might be a contributing factor to my site analysis. With the approval of the board via Mrs. Ducannon, I sent the sample to a local **pathology** lab for identification.

Limits of the Assignment

During my Oct. 12, 2013 visit, the tree was in full foliage which obscured direct visibility of the entire **canopy**, and my knowledge of the site history was limited to the recounted memory of the board members. These were my only limitations in addition to the normal restrictions of a Level 2: BTRA. More information could be gained by a Level 3: ATRA. With the use of a Risistograph™ around the areas of decay, as well as an aerial inspection of the upper canopy, more information could be gained that might ease restrictions.

Purpose and Use of Report

The purpose of this report is to present the information gathered through my observations of the American Basswood and surrounding grounds of TNPS headquarters in conjunction with the site history related to me by the TNPS. It is also the purpose of this report to communicate my recommendations based on that information to the local forestry board and the board of trustees of the TNPS. It is not intended as legal advice, nor does it intend to be represented as a substitution for legal advice concerning the responsibility or liability of the TNPS as it relates to ownership of the tree represented in this report. Upon submission, this report has been purchased by and is therefore the property of the TNPS to be used at their discretion.

OBSERVATIONS

Site Visit

On October 12th, 2013, at the request of Mrs. Ducannon, I met with her at the TNPS headquarters to assess the condition of the American Basswood.

Site Location and Condition

The tree stands in the lawn to the north of the headquarters building of the TNPS. It is located 13' north of the building, 11' west of the parking lot, and approximately 20' south of a gazebo. The ground is level, but the site is on top of a knoll and well irrigated. There is a ring of mushrooms in the CRZ north of the tree. The site has a history of lightning strikes and Westerly winds. Possible **targets** in the event of **failure** under normal conditions are: the parking lot (directly west), the gazebo (directly north), the headquarters building (from southwest to south east), and a fair weather picnic area (directly east). All targets are within dripline.

Tree Description

The tree is a mature American Basswood approximately 110' tall, measured with a **clinometer**, and has a canopy spread of approximately 70' (photo No.1). It has been described as a "Champion Tree" by Mrs. Ducannon. The canopy is well distributed and the **foliage** has good color. Leaf size and density is normal for the species.

Tree Condition

The tree appears to be in excellent health, with no visible signs of disease, **nutrient deficit**, or **dieback**. There is no readily apparent infestation of insects apart from the carpenter ants.

Limbs are well **tapered** but weakly attached with the presence of **included bark** throughout all major stems and leaders.

The tree has several cables installed at a height of approximately 60', nearly half the distance from the point of trunk separation to the top of the canopy. The cables are secured by **lag hooks**.

There are relatively few dead branches throughout the canopy that average 3" in diameter.

There is evidence of the past pruning indicated in the history.

ANALYSIS AND TESTING

The trunk is divided at approximately six feet into two main stems, to the east and west (photos No.2 & No.3). I inserted a ¼" diameter steel probe into the inclusion and it sank freely to a depth of approximately 4.5'. There were four original leaders, two on each stem.

The two leaders on the eastern stem are oriented to the southeast (SE) and northeast (NE). I employed a ladder to further investigate a cavity that exists at the base of the SE leader, at approximately 15.5' above the ground. It is approximately 3' in length, 8" wide, 6" deep, and extends 12" into the stem below the point of separation from the other stem (photo No.4). Foliage above this point is thick and growth is average compared to the rest of the tree. I **sounded** the trunk below the apparent termination of the cavity with a mallet in a rudimentary test to detect unseen decay, and the remaining trunk sounded solid. A Resistograph™ would provide more reliable and quantifiable data that might change this conclusion.

The western stem has one remaining leader to the northwest (NW). According to the history provided by the TNPS, the leader that was oriented to the southwest (SW) was struck by lightning approximately 15 years ago and was removed shortly thereafter. There is large cavity initiating from the removal cut at approximately 16' high and extending all the way to the ground. This cavity is approximately 23" deep but does not appear to undermine remaining weight distribution (photo No.3). I sounded the trunk below the remaining leader and the remaining trunk sounded solid. Again, a Resistograph™ would provide more reliable data.

There were mushrooms present 6' to the north of the trunk in the lawn. Samples were sent to a nearby land-grant university pathology lab that later identified them as *Marasmius oreadus*, or "Fairy Ring" mushroom.

DISCUSSION

Tree risk is assessed by the combining the **likelihood of failure** of a particular tree part with **likelihood of impact** to a valuable target, determining the consequence of impact due to failure, and determining a threshold of the severity of that consequence to establish acceptable risk. Mature trees inherently pose some level of risk to their surroundings, therefore no tree is considered risk free.

From the top down, the "Champion" American Basswood at the Tupelo Native Plant Society headquarters poses the following risks:

1. **Dead branches from the upper canopy:**

These branches are imminently likely to fail but have a very low likelihood of hitting a moving human target. Although the consequences of such an event are severe, the risk rating remains low due to their unlikelihood. However, the likelihood of these branches impacting the building is high. The cost to repair damage to the roof outweighs the cost of removing this inevitable hazard, so it represents a significant consequence of likely impact and is considered a high risk.

2. **Scaffold branches:**

The scaffold branches were mostly obscured by the full canopy. Their potential for risk could not be sufficiently gauged during this visit. An aerial inspection of the upper canopy would provide sufficient information to make an adequate assertion to any potential risk posed by this part of the tree.

3. **SE leader above cavity:**

The Basswood is considered a soft wooded tree, so the likelihood of failure of this leader over the next year is probable. Combining that with the high likelihood of impact with the building we can determine that it is likely the tree will impact the target over the next year. The consequences of such an impact would be significant, and so we will consider this defect to be a high risk.

4. **Included bark in main stems:**

Bark inclusion is a common cause of stem failure in the Basswood. Cables were installed 10 years ago to help mitigate this risk, but their orientation and design is not sufficient for the trees current stature^{xiv}. In the possible event of stem failure, likelihood of impact to cars in the parking lot is medium. Their combination is unlikely though, and even combined with the severe consequence the impact would have on the cars, represents a low risk.

However, in situations involving highly valuable trees, the tree itself can be considered a target of main stem failure. The loss of half of its canopy and the large wound created by separation would most likely stress the tree beyond recovery and it would likely enter an irreversible spiral of decline making this somewhat likely event a moderate risk.

5. **Lightning Strikes:**

Lightning has a devastating effect on a tree's health and longevity. It also has the potential to jump from highly susceptible targets, like the Basswood, to nearby structures through a phenomenon known as **Side Flash**^{xv}. This is a possible event (made more probable by the presence of supplemental support cables) with a high likelihood of impact that would result in a severe consequence. Lightning, in this case, poses a moderate risk.

6. **Decay in lower trunk on SW quadrant:**

This column of decay seems to be isolated to a portion of the trunk that previously supported the removed SW leader. It does not appear to represent a significant hazard.

7. Mushrooms growing 6' from trunk:

Some mushrooms can indicate significant root disease that can compromise the structural integrity of a tree. The mushrooms sampled in this report were identified as *Marasmius oreadus* which, though they are a virulent disease of certain grasses, are not considered to be harmful to the tree^{xvi}. They do not indicate a significant hazard.

8. Carpenter Ants:

Carpenter ants only mine out already dead decaying and plant tissue. Their presence is an indicator^{xvii} of the existence of this type of tissue, but in no way adds an additional threat related to the structural integrity of the tree.

Despite its structural imperfections, the American Basswood in front of the historic TNPS headquarters represents a highly valuable specimen. In order to preserve this asset, it is advisable that it be under the recurring care of a qualified arborist.

CONCLUSION

Based on my observations there are no significant risks to surrounding targets that cannot be mitigated through acceptable arboricultural practices outlined by the ANSI A300 Standard for Tree Care Operations. Not only is this tree a candidate for preservation, it is a valuable specimen tree that necessitates priority over the lawn, the gazebo, the cars in the parking lot, and the picnic area which are targets that are easily relocated. The historic building must take priority over the SE leader, the failure of which is inevitable, and the removal of which should be negligible to the longevity of the tree^{xviii}.

RECOMMENDATIONS

Removal of dead branches 2" and larger throughout the canopy of the tree will remove the hazard those branches pose to the surrounding targets without negatively impacting the tree. During cleaning operations, a qualified arborist should perform a Level 3: ATRA aerial inspection to establish potential hazards in the scaffold branches.

Removal of the SE leader and installation of additional cables will sufficiently reduce the risk of the main leaders to nearby targets. The installation of a new cable system will also sufficiently reduce the risk posed by the included bark in the main stems for a period of time.^{xix}

A history of lightning strikes at the site coupled with the likelihood of such a strike to this particular tree^{xx} and the added danger of side flash caused by its proximity to the building warrants the installation of a TLPS. To be effective, this system must be bonded with supplemental support system hardware (cables).

Restriction of the CRZ to “through traffic only” will lessen the overall traffic, decreasing the frequency of occupation of the target zone, and thereby lowering risk of potential unseen hazards in the upper canopy. Loiterers will be dissuaded by the posting of signs, as well as the relocation of the picnic benches and the Gazebo. The removal of the grass and its replacement with an organic mulch will also decrease CRZ occupation, while simultaneously providing a more beneficial environment to the absorbing roots of the tree^{xxi}. A major contributing factor to overall tree health and longevity. The **irrigation** system must be adjusted to adequately meet the demands of the tree, and not exceed them. A **tensiometer** could be employed to establish a watering schedule^{xxii}.

It is important that this tree be monitored more frequently by a qualified arborist. Supplemental support systems require this periodic inspection, and even very quick annual assessments of overall tree condition can be useful in avoiding catastrophic events associated with trees and the inherent risks the pose.

ⁱ Words in bold appear in Glossary

ⁱⁱ Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly. *Tree Risk Assessment Manual*. 2013. Champaign, Illinois: International Society of Arboriculture. 20

ⁱⁱⁱ Fite, Kelby, E. Thomas Smiley. *Best Management Practices – Managing Trees during Construction*. 2008. Champaign, IL: International Society of Arboriculture. 11

^{iv} E. Thomas Smiley, Sharon Lilly. *Best Management Practices – Tree Support Systems: Cabling, Bracing, Guying, and Propping*. 3rd Edition. 2014. Champaign, IL: International Society of Arboriculture. 3

^v E. Thomas Smiley. 4

^{vi} Smiley, E. Thomas, A. William Graham, Jr., Scott Cullen. *Best Management Practices - Tree Lightning Protection Systems*. 2nd Edition. 2008. Champaign, IL: International Society of Arboriculture. 21

^{vii} Smiley. 4

^{viii} Dunster. 143

^{ix} Dunster. 139

^x Dunster. 139

^{xi} Secretariat - Tree Care Industry Association, Inc. *ANSI A300 (Part 8)-2013 Root Management. American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Management – Standard Practices - Root Management*. 2013. Londonderry, NH. Tree Care Industry Association, Inc. 11

^{xii} E. Thomas Smiley. 45

^{xiii} Dunster. 23

^{xiv} E. Thomas Smiley. 12

^{xv} Smiley. 2

^{xvi} <https://www.pitchcare.com/magazine/daily-dose-of-disease-marasmius-oreades-fairy-rings.html>

^{xvii} Dunster. 83

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- ^{xviii} Gilman, E., Sharon Lilly. Best Management Practices – Tree Pruning. (Revised, 2008). 2008. Champaign, IL: International Society of Arboriculture. 25
- ^{xix} E. Thomas Smiley. 4
- ^{xx} Dunster. 142
- ^{xxi} Sharon Lilly. Arborists' Certification Study Guide. 2010. Champaign, IL: International Society of Arboriculture. 45
- ^{xxii} F.A. Bartlett Tree Expert Company. Standard Practices for Soil and Root Management. 2006. Stamford, CT: The F.A. Bartlett Tree Expert Company. 43

GLOSSARY

Acceptable risk: The degree or amount of risk that the owner, manager, or controlling authority is willing to accept.

ANSI A300 Standards for Tree Care Operations: in the United States, industry-developed, national consensus safety standards of practice for tree care.

Bonding: forming electrical connections between electrically conductive objects and components of a lightning protection system that are intended to significantly reduce potential differences created by lightning currents

Booklet style report: Booklet reports present information in an abbreviated book form. Booklet reports are probably the most commonly used and readily recognizable report format.

Cables: Steel or fiber ropes installed between branches within a tree to limit movement and provide supplemental support.

Canopy: Upper portion of the tree consisting of scaffolding branches, smaller limbs, and twigs.

Carpenter ant: A group of species of ants that nest in rotted or decaying wood.

Cavity: Open or closed hollow within a tree stem, roots, and branches. Often shrunken and discolored.

Critical root zone: Area of soil around a tree trunk where roots are located that provide stability and uptake of water and minerals required for tree survival.

Crown cleaning: In pruning, the selective removal of dead, dying, diseased, and broken branches from the tree crown.

Clinometer: instrument used for the measuring the height of a tree or other structure.

Dieback: A condition in which a tree or shrub begins to die from the tip of its leaves or roots backward, owing to disease or an unfavorable environment.

Diameter: The length of a straight line through the center of a circle.

Dripline: Imaginary line defined by the branch spread of a single plant or group of plants.

Failure: Breakage of a stem, branch, or roots, or loss of mechanical support in the root system.

Foliage: Leaves of a plant.

Hazard: Situation or condition that is likely to lead to a loss, personal injury, property damage, or disruption of activities; a likely source of harm. Tree part identified as likely source of harm.

Included bark: Bark that becomes embedded in a union between branch and trunk or between codominant stems, causing weak structure.

Inspection intervals: Time between inspections

Irrigation: The watering of land to make it ready for agriculture.

Lag hooks: A lag-threaded, J-shaped anchor

Leader: Primary terminal shoot or trunk of a tree. Large, usually upright stem. A stem that dominates a portion of the crown by suppressing lateral branches.

Levels of assessment: Categorization of the breadth and depth of analysis used in an assessment.

Likelihood of failure: The chance of tree failure occurring within the specified time frame.

Likelihood of impact: The chance of a tree failure impacting the target in the specified time frame.

Mature: Mature trees are close to their full height and crown size, these dimensions being determined by species and site factors.

Nutrient deficit: When the supply of any one plant nutrient is so low as to limit growth. Symptoms of nutrient deficiency only appear when the deficiency is severe.

Organic mulch: A layer of dead plant material at the soil surface.

Pathology (plant): The study of the organisms and environmental conditions that cause disease in plants, the mechanisms by which this occurs, the interactions between these causal agents and the plant (effects on plant growth, yield and quality), and the methods of managing or controlling plant disease.

Pruning: Removing branches from a tree or other plant, using approved practices, to achieve a specified objective

Qualified arborist: An individual who, by possession of a recognized degree, certification, or professional standing, or through related training and on-the-job experience, is familiar with the equipment and hazards involved in arboricultural operations and who has demonstrated ability in the performance of the special techniques involved.

Resistograph: An instrument for estimating the extent of internal decay in trees by means of a small-diameter drill. The resistance to the drill bit is continuously recorded on graph paper, low resistance suggesting advanced decay.

Side Flash: Tendency for lightning to “jump” to a more conductive tree, structure, animal, or person.

Sounded (sounding): Process of striking a tree with a mallet or other appropriate tool and listening for tones that indicate dead bark, a thin layer of wood outside a cavity, or cracks in wood.

Structural pruning: Pruning to establish a strong arrangement or system of scaffold branches.

Targets: People, property, or activities that could be injured, damaged, or disrupted by a tree.

Tensiometer: Instrument used to measure soil moisture.

BIBLIOGRAPHY

Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly. Tree Risk Assessment Manual. 2013. Champaign, Illinois: International Society of Arboriculture

Fite, Kelby, E. Thomas Smiley. Best Management Practices – Managing Trees during Construction. 2008. Champaign, IL: International Society of Arboriculture

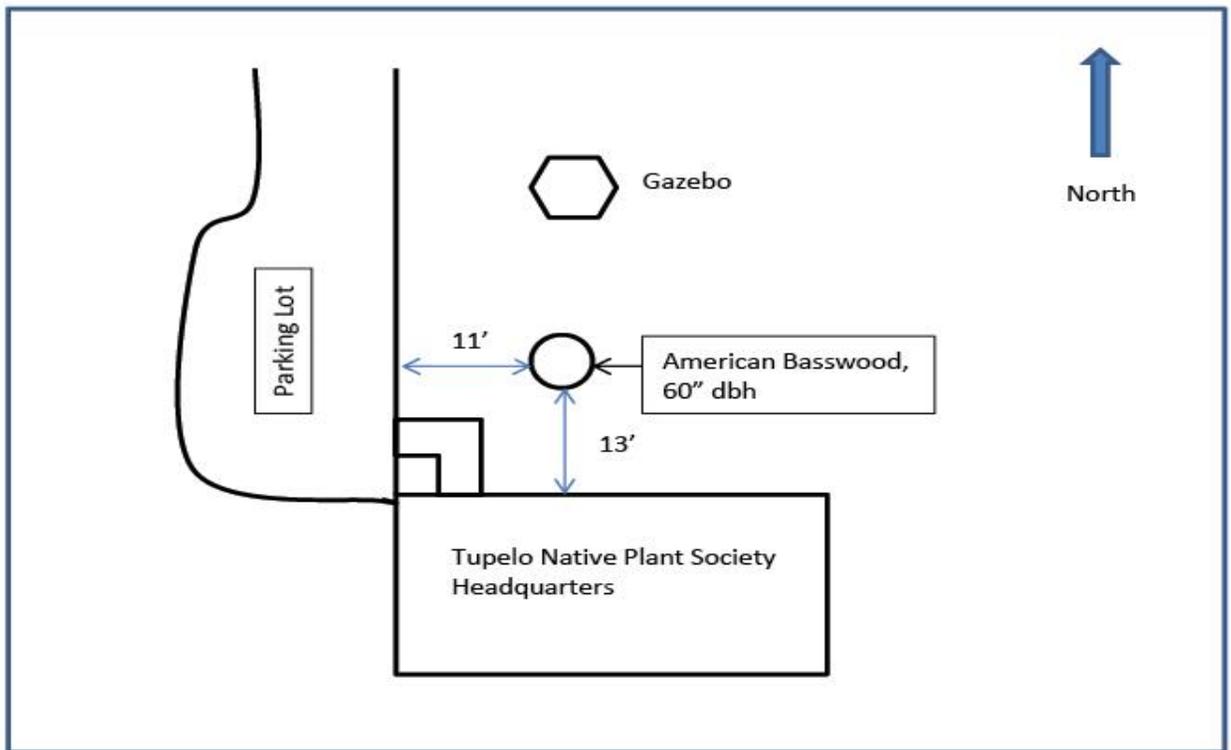
E. Thomas Smiley, Sharon Lilly. Best Management Practices – Tree Support Systems: Cabling, Bracing, Guying, and Propping. 3rd Edition. 2014. Champaign, IL: International Society of Arboriculture

Smiley, E. Thomas, A. William Graham, Jr., Scott Cullen. Best Management Practices - Tree Lightning Protection Systems. 2nd Edition. 2008. Champaign, IL: International Society of Arboriculture

Secretariat - Tree Care Industry Association, Inc. ANSI A300 (Part 8)-2013 Root Management. American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Management – Standard Practices - Root Management. 2013. Londonderry, NH. Tree Care Industry Association, Inc.

<https://www.pitchcare.com/magazine/daily-dose-of-disease-marasmius-oreades-fairy-rings.html>

APPENDIX - SITE SKETCH



APPENDIX B - PHOTOS



Photo 1—Looking south. View of American Basswood at Tupelo Native Plant Society.



Photo 2—The two stems of the tree, north side.

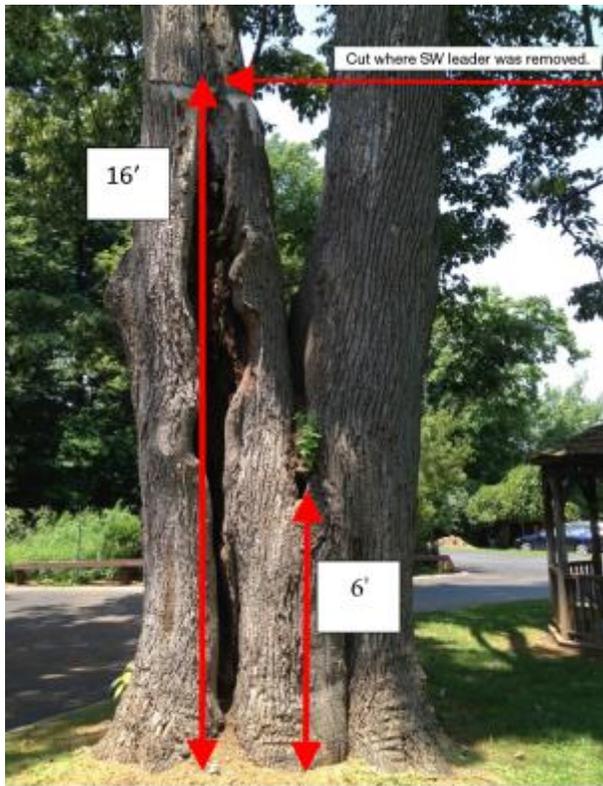


Photo 3—Trunk showing cavity from south side.



Photo 4—Cavity in the SE stem.



Photo 5—East side of tree.

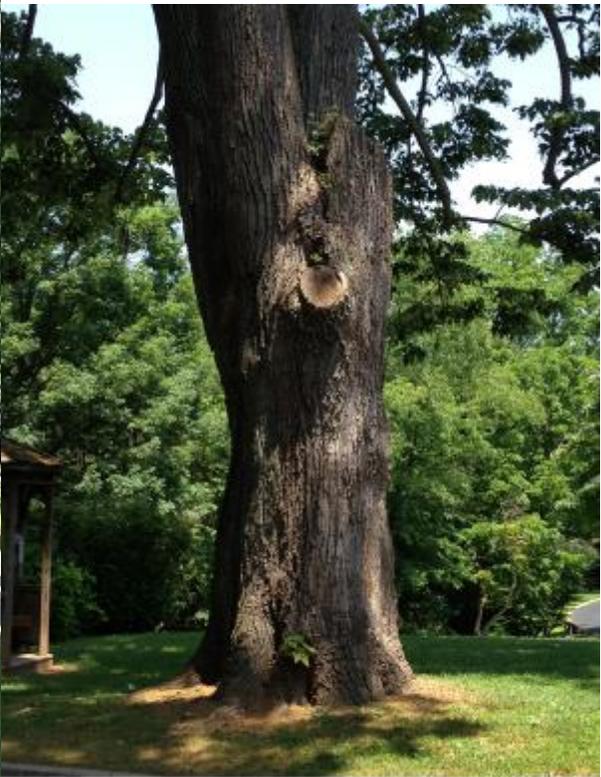


Photo 6—West side of tree.

APPENDIX C – ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable.
2. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee not be responsible for the accuracy of information provided by others.
3. The consultant/appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual agreements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
4. Loss of alteration of any part of this report invalidates the entire report.
5. Possession of this report or a copy thereof does not imply the right of publication or use for any purpose by another other than the person to whom it is addressed, without the prior expressed written or oral consent of the consultant/appraiser.
6. Neither all nor any part of the contents of this report, nor copy thereof shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed written or oral consent of the consultant/appraiser particularly as to value considerations, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in his qualifications.
7. This report and values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
8. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
9. Unless expressed otherwise: (1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems and deficiencies of the plants or property in question may not arise in the future.

ARBORIST DISCLOSURE STATEMENT AND CERTIFICATION OF PERFORMANCE

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for any specified period of time. Likewise, remedial treatments, like but not limited to: any applied fertilizers, pesticides, fungicides, plant growth regulators, supplemental support systems, and corrective pruning, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees inherently pose a certain degree of hazard and risk from breakage, failure or other causes and conditions. Recommendations that are made are intended to minimize or reduce such hazardous conditions. However, there can be no guarantee that efforts to discover or correct unsafe conditions will prevent future breakage or failure, nor can there be any guarantee that all hazardous conditions have been detected. The client should not infer that a tree is safe either because work has been done to reduce risk, or because no work has been recommended on a specific tree.

I, John Huddleston, certify:

That I have personally inspected the trees on the property referred to in this report and have stated my findings accurately. The analysis, opinions, and conclusions stated herein are my own and based on current scientific procedures and commonly accepted arboricultural practices.

Signed:

John Huddleston
ASCA Registered Consulting Arborist #???
ISA Board Certified Master Arborist # WE-7660B