Anytown Farms Tree Risk Assessment

Prepared for: Anytown Farms Homeowners Association PO Box 222 Anytown, MA 03833

Prepared by: Howard Gaffin MCA #1468 BCMA # NE-0363B RCA #458

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Summary

After assessing the health and structure of selected trees on common land property, I have determined two to be of high risk, two to be moderate risk, one to be of low to moderate risk, and nine to be low risk. Risk ratings for each tree and abatement recommendations are included in this report.

Introduction

Background

In early July of 2013, I was contacted by Ms. Julia Jones in regards to trees located on property owned by the Anytown Farms Homeowners Association (AFHA) in Anytown, MA. There is concern about the possible risks posed to privately owned properties from some of the trees on the commonly owned land. I was contracted to provide an objective assessment of the trees in question.

Assignment

After discussions with board member Mr. Joe Homes, it was agreed that I would:

- Photograph and document trees on common land exhibiting potential risk to life and/or property
- Assess and rate the risks. Provide recommendations and abatement options if applicable.
- Provide a written report of my findings.

Scope of Work

The scope of this assignment is limited to trees located on AFHA common land that are abutting privately owned association properties. Except for two trees noted in this report, I did not inspect any trees abutting public land along Rt. 22 or James Rd., nor any trees assumed to be located on privately owned property. The trees should be reassessed annually, unless noted otherwise in this report.

A level two risk assessment was used for this report. A level two assessment includes the following (from ANSI A300 (part 9)-2011 Tree Risk Assessment):

- A 360 degree, ground-based visual inspection of the tree crown, trunk, root crown¹, above ground roots, and site conditions around the tree and targets
- When sounding is specified, a mallet or equivalent tool may be used to detect large hollows and loose bark in the trunk, root crown, and above ground buttress roots²
- Use of hand tools, trowels, binoculars, or probes shall not be precluded
- An assessment shall include the identification of conditions indicating the presence of structural defects

Limitations

Identifying and managing risks associated with trees is a subjective process. Since the nature of tree failures remains largely unknown, the ability to predict failure remains limited (see Arborist Disclosure Statement, pg. 24).

¹ root crown - area where main roots join the plant stem, usually at or near ground level

² buttress roots – roots at the trunk base that help support the tree and equalize mechanical stress

Purpose and Use

The purpose of this report is to provide objective information regarding the risks presented by trees abutting privately owned properties that are located on AFHA land. It may be used for decision makers to properly allocated resources toward tree related matters.

Observations

I met with Mr. Joe Homes at his home at 9 Anytown Farms Rd., Anytown, MA on July 27, 2010. The Anytown Farms Housing Association is made up of 50 homes. The community is surrounded by a wooded area of commonly owned land that abuts the back yards of the private properties. Mr. Homesprovided a tour of the site, and pointed out specific trees that were of concern. Many of the trees that are located along the borders are quite large. Some of them appear to have survived a wood harvest or two, and dominate the over-story of the woodlot. Most of the trees that could impact properties are located in the western part of the community (see Site Map, pg. 23).

Individual observations and assessments are provided in this report for 14 trees assumed to be on AFHA commonly owned land.

Discussion

Methodology

I have chosen to use a Qualitative Risk Assessment as an approach for this report. The following information regarding this approach comes directly from an article in the International Society of Arboriculture publication, <u>Arborist News</u> (E. Thomas Smiley, Nelda Matheney and Sharon Lilly. "Qualitative Tree Risk Assessment." <u>Arborist News</u>, February, 2012, pgs. 12-20).

Qualitative risk assessment is the process of using ratings of the likelihood and consequences of an event to determine a risk level and evaluate the level of risk against qualitative criteria. Often, ratings are combined in a matrix to categorize risk. Inherent subjectivity and ambiguity are limitations of the qualitative approach. In order to increase reliability and consistency of application, it is important to provide clear explanations of the terminology and significance of the ratings defined for likelihood, consequences, and risk.

The first part of the assessment is to determine the *Likelihood of Failure* and apply one of the following ratings:

- **Improbable** the tree or branch is not likely to fail during normal weather conditions and may not fail in many severe weather conditions within the specified time period.
- **Possible** failure could occur, but it is unlikely during normal weather conditions within the specified time period.
- **Probable** failure may be expected under normal weather conditions within the specified time period.
- **Imminent** failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. This is a rare occurrence for a risk assessor to encounter, and may require immediate action to protect people from harm.

Next, the *Likelihood of Impacting a Target* is assessed using the following ratings:

- Very Low the chance of the failed tree or branch impacting the specified target is remote. This is the case in a rarely used site that is fully exposed to the assessed tree, or an occasionally used site that is partially protected by trees or structures. Examples include a rarely used trail or trail head in a rural area, or an occasionally used area that has some protection against being struck by the tree failure due to the presence of other trees between the tree being assessed and the targets.
- Low it is not likely that the failed tree or branch will impact the target. This is the case in an occasionally used area that is fully exposed to the assessed tree, a frequently used area that is partially exposed to the assessed tree, or a constant target that is well protected from the assessed tree. Examples are a little-used service road next to the assessed tree, or a frequently used public street that has a street tree between the street and the assessed tree.
- **Medium** the failed tree or branch may or may not impact the target, with nearly equal likelihood. This is the case in a frequently used area that is fully exposed on one side to the assessed tree, or a constantly occupied area that is partially protected from the assessed tree. Examples include a suburban street next to the assessed street tree or a house that is partially protected from the assessed tree by an intermediate tree.
- **High** the failed tree or branch will most likely impact the target. This is the case when a fixed target is fully exposed to the assessed tree or near a high-use road or walkway with an adjacent street tree.

After providing ratings for the previous two categories, a matrix is used to estimate the *Likelihood of a Tree Failure Impacting a Target* as follows:

Likelihood of a Tree Failure Impacting a Target				
Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very Likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

The next step is to determine the *Consequences of Failure*. Consequences are estimated based on the value of the target and the harm that may be done to it. The consequences depend on the part size, fall characteristics, fall distance, and any factors that may protect the risk target from harm. The significance of target values—both monetary and otherwise—is subjective and relative to the client. Values should be assessed from the client's perspective. *Consequences of Failure* can be categorized using the following guidelines:

- **Negligible** consequences are those that involve low-value property damage or disruption that can be replaced or repaired, and do not involve personal injury. Examples of negligible consequences include:
 - a small branch striking a fence
 - a medium-sized branch striking a shrub bed
 - a large part striking a structure and causing low monetary damage
 - disruption of power to landscape lighting

- **Minor** consequences are those involving low to moderate property damage, small disruptions to traffic or a communication utility, or very minor injury. Examples of minor consequences include:
 - a small branch striking a house roof from a high height
 - a medium-sized branch striking a deck from a moderate height
 - a large part striking a structure
 - short-term disruption of power at a service drop to a house
 - temporary disruption of traffic on a neighborhood street
- **Significant** consequences are those that involve property damage of moderate to high value, considerable disruption, or personal injury. Examples of significant consequences include:
 - a medium-sized part striking an unoccupied new vehicle from a moderate or high height
 - a large part striking a structure and resulting in high monetary damage
 - disruption of distribution primary or secondary voltage power lines, including individual services and street-lighting circuits
 - disruption of traffic on a secondary street
- **Severe** consequences are those that could involve serious personal injury or death, damage to high-value property, or disruption of important activities. Examples of severe consequences include:
 - injury to a person that may result in hospitalization
 - a medium-sized part striking an occupied vehicle
 - a large part striking an occupied house
 - serious disruption of high-voltage distribution and transmission power lines
 - disruption of arterial traffic or motorways

Once the *Consequence of Failure* rating has been determined, it is combined with the *Likelihood of a Tree Failure Impacting a Target* rating using the following matrix to determine a *Tree Risk Rating*.

Risk Rating Matrix					
Likelihood of Failure	Consequences				
and Impact	Negligible	Minor	Significant	Severe	
Very Likely	Low	Moderate	High	Extreme	
Likely	Low	Moderate	High	High	
Somewhat likely	Low	Low	Moderate	Moderate likely	
Unlikely	Low	Low	Low	Low	

This matrix was designed specifically for the evaluation of risk posed by tree failures. The limitations associated with using a matrix include the inherent subjectivity associated with the selection of both the likelihood and consequence factors, and the lack of comparability to other types of risk assessed using other means.

In the tree risk assessment matrix, four terms are used to define levels of risk: low, moderate, high, and extreme. These risk ratings are used to communicate the level of risk and to assist in making recommendations to the owner or risk manager for mitigation and inspection frequency. The priority for action depends upon the risk rating and risk tolerance of the owner or manager.

• Low - The low-risk category applies when consequences are "negligible" and likelihood is "unlikely"; or when consequences are "minor" and likelihood is "somewhat likely." Some trees with this level of risk may benefit from mitigation or maintenance measures, but immediate

- action is not usually required. Tree risk assessors may recommend retaining and monitoring these trees, as well as mitigation that does not include removal of the tree.
- Moderate Moderate-risk situations are those for which consequences are "minor" and likelihood is "very likely" or "likely"; or when likelihood is "somewhat likely" and consequences are "significant" or "severe." The tree risk assessor may recommend mitigation and/or retaining and monitoring. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or manager. In populations of trees, moderate-risk trees represent a lower priority for mitigation than high or extreme-risk trees.
- **High -** High-risk situations are those for which consequences are "significant" and likelihood is "very likely" or "likely," or when consequences are "severe" and likelihood is "likely." This combination of likelihood and consequences indicates that the tree risk assessor should recommend mitigation measures be taken as soon as is practical. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or risk manager. In populations of trees, the priority of high-risk trees is second only to extreme-risk trees.
- Extreme The extreme-risk category applies in situations in which failure is "imminent" and there is a high likelihood of impacting the target, and the consequences of the failure are "severe." The tree risk assessor should recommend that mitigation measures be taken as soon as possible. In some cases, this may mean immediate restriction of access to the target zone area to avoid injury to people.

The Trees

Tree 1 - Red Oak







Tree: 1, Red Oak, 26" dbh **Location:** Within small cemetery near Rt. 27 and main entry

Part(s) Evaluated for Failure: Root crown/lower trunk

Potential Targets: Cars on Rt. 27 Likelihood of Failure: Probable Likelihood of Impacting Target: High Consequences of Impact: Significant

Risk Rating: High

Observations: This large Red oak exhibits a large open wound with exposed, decaying wood running from the base of the tree to about 25 feet up the trunk. The wound is approximately one third the circumference of the tree at the base. *ganoderma applanatum* and *xylaria polymorpha* fungi are evident. While *xylaria* is not a serious threat, *ganoderma* indicates serious pending decay that can cause both root and butt rot. Sounding with a mallet indicates a thin shell wall. The foliage appears to be fair in color and density. Impact to Rt. 27 is a possibility should a failure take place.

Recommendations and Risk Abatement Options: No abatement options are applicable for this tree.

Tree 2 - Red Oak



Tree: 2, Red Oak, 25" dbh **Location:** Rt. 27 and Anytown Farms Rd., near main entry, behind

sign

Part(s) Evaluated for Failure: Root crown/lower trunk, scaffold limb³

Potential Targets: Cars on Rt. 27 and Exeter Farms Rd.

Likelihood of Failure: Root crown/lower trunk: Possible. Scaffold limb: Possible

Likelihood of Impacting Target: Root crown/lower trunk: High. Scaffold limb: Medium **Consequences of Impact:** Root crown/lower trunk: Significant. Scaffold limb: Minor

Risk Rating: Root crown/lower trunk: Moderate. Scaffold limb failure: Low

Observations: This large Red oak stands at a main intersection. Old wounds, decay and fill soil are evident at the root crown. Dark staining from cankers⁴ along the lower trunk indicate possibility of *phytophthora*, a major root and trunk disease. Cracks are evident along the trunk. A large scaffold branch growing towards the intersection exhibits poor structure at the junction to the main trunk. An old branch wound has given way to a cavity just below this junction. Impact to the roadway is a possibility should a failure take place

Recommendations and Risk Abatement Options: It would be advisable to perform a root crown excavation ⁵ on this tree. Sounding with a mallet did not suggest any hollowness of the trunk, but the combination of the fill soil, wounding, presence of decay, and possibility of *phytophthora* make the root crown and roots an area of concern. The level of risk could be reduced by having a better idea of what's happening underground. This tree should be monitored for changes in lean or root plate disturbance after any severe weather event

A properly installed support cable would greatly reduce the risk involving the large scaffold limb. Monitor for any changes in lean or root plate disturbance after any severe weather event.

³ scaffold limb – permanent structural branches of a tree

⁴ canker – localized disease areas on stems, roots, and branches, often shrunken and discolored

⁵ root crown excavation – process of removing soil to expose and success the root crown of a tree

Tree 3 - Red Maple







Tree: 3, Red Maple 26" dbh (below split) **Part(s) Evaluated for Failure:** Trunk

Potential Targets: House **Likelihood of Failure:** Possible

Likelihood of Impacting Target: Medium

Consequences of Impact: Minor

Risk Rating: Low

Location: 19 Anytown Farms Rd.

Observations: This Red maple exhibits a solid root crown and trunk. Two main scaffold limbs arise from a v-shaped crotch with included bark⁶ near the base of the tree, but the relative vertical growth of the scaffolds arising from this junction makes the defect of less concern. The foliage color and density look good.

Recommendations and Risk Abatement Options: Installation of a support cable would greatly reduce the possibility for failure. Monitor the junction for any evidence of splitting, especially after a severe weather event.

Gaffin Tree 10

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⁶ included bark - bark that becomes embedded in a crotch between branch and trunk or between co-dominant stems causing a weak structure

Tree 4 - Red Oak







Tree: 4, Red Oak, 46" dbh Location: 19 Anytown Farms Rd.

Part(s) Evaluated for Failure: Root crown/lower trunk, limbs

Potential Targets: House, people

Likelihood of Failure: Root crown/lower trunk: Improbable. Limbs: Possible

Likelihood of Impacting Target: Root crown/lower trunk: Medium. Limbs: Very Low

Consequences of Impact: Root crown/lower trunk: Severe. Limbs: Significant

Risk Rating: Root crown/lower trunk: Low. Limbs: Low

Observations: This impressive oak has likely survived a wood harvesting or two and is one of the oldest trees on the site. A swing hangs off the lowest scaffold limb. The root crown, buttress roots and trunk all appear sound. Cavities are evident in the upper part of the main trunk at old branch sites. The upper crown architecture looks good. Three dead limbs greater than 3" in diameter were noted. The foliage is of good color and density.

Recommendations and Risk Abatement Options: Though I believe the upper trunk to be sound, further investigation of the trunk cavities would be prudent. Removal of any dead limbs over the lawn areas could also be performed at this time.

Monitor for any changes in lean or root plate disturbance after any severe weather event.

Tree 5 - White pine





Tree: 5, White pine **Location:** 3 Hollowbrook Cir., rear

Part(s) Evaluated for Failure: Root crown/lower trunk

Potential Targets: House, people **Likelihood of Failure:** Possible **Likelihood of Impacting Target:** Low

Consequences of Impact: Minor

Risk Rating: Low

Observations: This white pine tree growing along the forest edge has a long wound from near the base to about 20 feet up the trunk, possibly caused by lightning. The trunk still seems fairly solid, and the upper crown exhibits foliage of fair color and density. Possible targets include the house and an old, seemingly abandoned swing set.

Recommendations and Risk Abatement Options: This tree is unlikely to cause much damage to the house if it did fail. The swing set could be moved out of range of the tree. Removal could be considered, and would be relatively inexpensive. Monitor for any changes in lean or root plate disturbance after any severe weather event.

Tree 6 - White pine







Tree: 6, White pine, 35" dbh **Location:** Between 9 and 11 Hollowbrook Cir., rear

Part(s) Evaluated for Failure: Large scaffold

Potential Targets: Houses **Likelihood of Failure:** Possible

Likelihood of Impacting Target: Medium **Consequences of Impact:** Significant

Risk Rating: Low

Observations: This large pine tree stands above the surrounding canopy. The root crown appears solid. Sounding with a mallet indicated areas of hollowness below old branch wounds at 6'. Two nearly vertical main stems diverge from a v-shaped crotch at about 20'. Little included bark was noted. The crown appears quite healthy with minimal dead wood.

Recommendations and Risk Abatement Options: The main risk for this tree lies with the stem junction. While the defect is not extreme, installation of a support cable between the two stems would be instrumental in reducing the risk.

Monitor for any signs of cracks forming below the crotch, especially after any extreme weather event.

Tree 7 – White ash







Tree: 7, White ash 26" dbh **Location:** 13 Hollowbrook Cir., rear

Part(s) Evaluated for Failure: Limbs

Potential Targets: People **Likelihood of Failure:** Probable

Likelihood of Impacting Target: Very Low

Consequences of Impact: Minor

Risk Rating: Low

Observations: The root flare of this tree is not evident, indicating fill was likely added over the root crown at some point in time. The trunk appears solid with a slight lean to the south-west. The upper crown health is fair. Long, dead limbs over 3" in diameter extend over the wooded area to the south. Tip die-back is evident in the outer reaches of the crown. The foliage color and density is fair.

Recommendations and Risk Abatement Options: While rated a low risk at this time, the crown dieback suggests a tree in physiological decline. Measures to improve health would be advisable if this tree is valued. Removal of the large dead limbs could be considered.

Monitor for any changes in health, such as further decline of the upper crown.

Tree 8 - Black walnut







Tree: 8, Black Walnut, 35" dbh Location: 13 Hollowbrook Cir., rear

Part(s) Evaluated for Failure: Trunk Potential Targets: House, people Likelihood of Failure: Probable

Likelihood of Impacting Target: High **Consequences of Impact:** Significant

Risk Rating: High

Observations: No root flare is evident on this tree, indicating the area was filled. A large open wound is located to the north at the base. Large open cavities and cracks are on the lower trunk and continue up the hollow trunk on the south side. The trunk leans toward a deck and house. The upper crown retains enough leaf area and mass to enhance vulnerability during wind events. Though failure is more likely to happen during a weather event, it could occur at any time.

Recommendations and Risk Abatement Options: Remove as soon as possible.

Tree 9 – Sugar maple







Tree: 9, Sugar maple, 42" dbh **Location:** between 15 and 17 Hollowbrook Cir., rear

Part(s) Evaluated for Failure: Scaffold limb

Potential Targets: People **Likelihood of Failure:** Possible

Likelihood of Impacting Target: Very Low **Consequences of Impact:** Significant

Risk Rating: Low

Observations: This specimen sugar maple has great aesthetic appeal. The root crown and lower trunk are sound. Two main scaffolds arise from a tight crotch at about 10'. This area exhibits many old branch wounds with open cavities visible on both sides of the trunk. Areas of decay and loose bark are visible on the inner portion of the crotch. More branch wounds are visible further up the two main trunks. The foliage color, size and density appear to be fair to good.

A lower limb grows toward a swing set with visible cracks, but good wound response was noted.

Recommendations and Risk Abatement Options: The risk rating is low, but the aesthetic value of this tree may promote consideration of a support cable. The lower limb noted above would benefit from a reduction pruning to reduce any chance of breakage.

Monitor for any signs of cracks forming below the crotch, especially after any extreme weather event.

Tree 10 – Sugar maple







Tree: 10, Sugar maple, 26" dbh **Location:** 17 Hollowbrook Cir., near path to road in rear

Part(s) Evaluated for Failure: Scaffold limb

Potential Targets: House **Likelihood of Failure:** Probable

Likelihood of Impacting Target: Medium

Consequences of Impact: Minor

Risk Rating: Low

Observations: The root crown and buttress roots are solid on this tree, but vertical cracks on either side of the trunk extend down from a v-shaped crotch with included bark at a height of about 16'. Two main stems arise from the defective crotch. The stem to the east has the potential to reach a house, but other plants would likely buffer a failure, and only the smaller portions of the crown would impact the house. The foliage color, size and density appear to be fair to good.

Recommendations and Risk Abatement Options: The risk rating is low, but eventual failure of the defective crotch is likely. Installation of a support cable would be highly advisable if the chance of failure is to be abated.

Monitor for changes in the cracks below the crotch, especially after any extreme weather event.

Tree 11- Sugar maple







Tree: 11, Sugar maple, 20" dbh **Location:** 17 Hollowbrook Cir., rear

Part(s) Evaluated for Failure: Root crown/lower trunk

Potential Targets: House **Likelihood of Failure:** Probable

Likelihood of Impacting Target: Medium **Consequences of Impact:** Significant

Risk Rating: Moderate

Observations: The sister stem of this remaining sugar maple failed long ago. Many of the buttress roots show areas of missing bark and evidence of decay. The remaining stem sits on a hollow base and presents a long crack with a rams' horn⁷ formation running far up the stem. The upper crown is weak with off-colored, small and sparse foliage.

Recommendations and Risk Abatement Options: No abatement options are applicable for this tree.

⁷ rams horn – formation caused by rapid formation of woundwood

Tree 12 - White ash





Tree: 12, White ash, 16" and 13" dbh **Location:** 35 Anytown Farms Rd.

Part(s) Evaluated for Failure: Lower trunk

Potential Targets: Cars

Likelihood of Failure: Possible **Likelihood of Impacting Target:** Low **Consequences of Impact:** Significant

Risk Rating: Low

Observations: The buttress roots of this double-stemmed white ash tree are solid where they enter the ground. A column of decay runs along the inner portions of the trunks facing each other from the base to a height of 6 to 8'. There is die-back in the upper crown. The lower adventitious limb ⁸growth is quite vigorous, though poor attachment points to the main stem will become an issue.

Recommendations and Risk Abatement Options: The risk is low, but this tree would benefit from a crown cleaning and the installation of a support cable. Occasional pruning of the newer growth is also advised.

Monitor for changes in the union at the base, especially after any extreme weather event.

Gaffin Tree

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⁸ adventitious limb – limb arising from parts of the stem having no connection to apical meristems

Tree 13 – White pine







Tree: 13, White pine, 25" dbh **Location:** 50 Anytown Farms Rd., behind fence in rear

Part(s) Evaluated for Failure: Root crown/lower trunk

Potential Targets: House **Likelihood of Failure:** Possible

Likelihood of Impacting Target: Medium **Consequences of Impact:** Significant

Risk Rating: Low to Moderate

Observations: This 100' plus tree exhibits a slight lean toward the house. The root crown and trunk area are obscured by brush and some fill, but appear to be solid. The trunk divides into two main stems at 10'. The crotch exhibits a poor v-shaped form with included bark. Sounding with a mallet indicates areas of decay below this junction on the smaller stem to the north-east, which also exhibits an upper crown in decline. The larger stem to the south-west shows good foliage color and density, but only 30 percent of live crown ratio⁹.

Recommendations and Risk Abatement Options: As cabling is not an option, no abatement options are applicable for this tree. Monitor for any signs of cracks expanding below the crotch, especially after any extreme weather event.

Gaffin Tree 20

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⁹ live crown ratio – ratio of the height of the crown containing live foliage to the overall height of the tree

Tree 14 – White pine





Tree: 14 White pine, 25" dbh **Location:** 40 Anytown Farm Rd., rear

Part(s) Evaluated for Failure: Root crown/lower trunk

Potential Targets: House

Likelihood of Failure: Improbable

Likelihood of Impacting Target: Medium **Consequences of Impact:** Significant

Risk Rating: Low

Observations: This 100' plus tall pine is readily visible throughout the neighborhood. The root crown and lower trunk are solid. Old, dead limbs extend up to the trunk to the crown. Scarring along the entire trunk indicates a lightning strike may have taken place. New growth along the stem prohibits inspection of the wounds, but also indicates good response to injury. The upper crown is oddly shaped and of moderate health.

Recommendations and Risk Abatement Options: I believe the risk of the lower portion of this tree failing is low. It is more likely that portions of the upper crown will fail, but no discernible target was noted below. Monitor for any changes in the lean or changes in the soil area around the root crown, especially after any extreme weather event. Also watch for any changes in health of the upper crown.

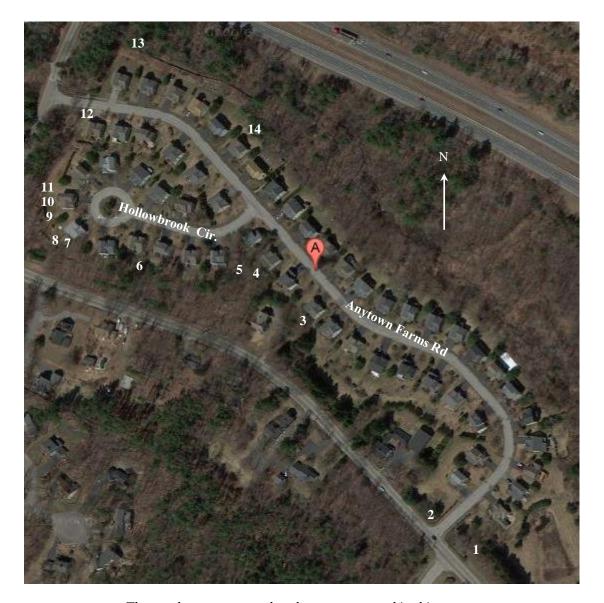
Conclusions

After assessing trees determined to be within the scope of this report, I have found two to be of high risk, two to be a moderate risk, one to be of low to moderate risk, and nine to be low risk. Mitigation measures should be taken as soon as possible for the high risk trees.

Recommendations

- Annual monitoring for any health or structural changes
- Check trees after any extreme weather event for changes in the soil, roots, trunk or crown. Inspect any large scaffold branch unions identified as suspect in this report
- Review mitigation options (if applicable) and recommendations provided for each tree identified in this report.
- Any tree work should be done by a qualified arborist accredited by the New Hampshire Arborist Association, Massachusetts Arborist Association, Tree Care Industry Association or International Society of Arboriculture.

Site Map



The numbers correspond to the trees assessed in this report.

Site map from Google Maps

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of tress, 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 the structural failure of a tree. Trees are living organisms that fail in ways we don't 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 a specified period of time. Likewise, remedial treatments, like any medicine, 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 can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate them.

I, disclosure and that I hav	, acknowledge that I have received a copy of read and understand the statement.	this
Signed	Date	

Assumptions and Limiting Conditions

- 1 Any legal description provided to the consultant / appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters of legal character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 2 It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other government regulations.
- **3** 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 nor be responsible for accuracy of information provided by others.
- **4** The consultant / appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- **5** Loss or alteration of any part of this report invalidates the entire report.
- **6** Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written or verbal consent of the consultant / appraiser.
- 7 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 verbal consent of the consultant / appraiser--particularly as to value conclusions, 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 qualification.

Certificate of Performance

I, Howard Gaffin, certify that:

I have personally inspected the tree on the property referred to in this report and have stated my findings accurately. The extent of the evaluation and/or appraisal is in the attached report.

I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no bias with respect to the parties involved.

The analysis, opinions, and conclusions stated herein are my own and are based on current scientific procedures and facts.

My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

No one provided significant professional assistance to the consultant, except as indicated within the report.

I further certify that I hold the following credentials:

- Registered Consulting Arborist #458
- Board Certified Master Arborist #NE-0363B
- Massachusetts Arborist Association Certified Arborist#1468

I have been involved with the practice of arboriculture for over 30 years.

Signed 777 -

Date <u>9/2/2013</u>