John Q. Arborist
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Anytown, FL 00000
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July 12, 2021

Mr. and Mrs. John Smith
101 Main Street
Anytown, FL

Dear Mr. and Mrs. Smith,

Please find below my Tree Risk Assessment report for your red maple tree.

REPORT

SUMMARY *(optional)*
I assessed the risk of one red maple tree on your property using a Level 2 and Level 3 assessment. I found extensive internal decay that can lead to tree failure in normal weather conditions within two years. Multiple assets including people, houses, and powerlines could be struck if this tree failed causing significant or severe damage. This resulted in a risk rating of MODERATE. With mitigation the risk rating can be reduced to LOW.

ASSIGNMENT *(required)*
My assignment was to provide a tree risk assessment for one large red maple tree (Acer rubrum) because you were advised by others that this tree may be a liability. The tree is located on property described as: 101 Main Street, Anytown, FL. I conducted my inspection on the afternoon of July 8, 2021 in your presence.

Photo *(optional)*

This report contains proprietary information and is for the exclusive use of Mr. and Mrs. Smith. The report can be shared with the city of Anytown to comply with tree protection regulations.

METHODOLOGY *(required)*
I performed a **Level 2** and **Level 3** Tree Risk Assessment based on the ANSI A-300 (Part 9, 2017) Tree Risk Assessment standard and used the methodology defined in the International Society of Arboriculture's Best Management Practice for Tree Risk Assessment (2017). I considered people near the tree, your and your neighbors' houses, and the powerlines in your backyard as likely to be

impacted if the tree failed. I used a mutually agreed to 2-year time frame for the assessment.

OBSERVATIONS *(required)*
The Tree. *(required)* The tree is a large (28-inch **DBH**) red maple (*Acer rubrum)* that is about 55 feet tall with an approximate 30-foot spread. The tree is located in near the north-west corner of your yard. It is the most prominent tree in the area, meaning that it is fully exposed to the wind.

Tree Health. The tree is quite old and currently in good health based on a scale of poor, fair, good, and excellent.

Defects and conditions of concern. *(required)* A visual examination of the tree revealed several small dead branches and several cavity openings. I struck the tree trunk with a mallet in several locations to listen for tones indicating internal decay. This sounding revealed that the trunk was hollow. I then drilled the trunk of the tree in four locations to determine the amount of solid wood. I found an off-center undulating decay pattern within the trunk and a nominal solid wood thickness of 3.5 inches. The tree also has two cavity openings at the site of old pruning wounds. Heartwood decay is common in old trees and is not necessarily a condition of concern. However, based on our **decay formula** this tree would need a nominal sound wood thickness of 4.6 inches so as not to be a 'probable' likelihood of failure. This tree also lacks **response growth** that would lessen the effects of heartwood decay.

ANALYSIS *(required)*

The Primary Concern *(required)*
The primary concern for this tree is heartwood decay in the lower trunk that is likely to result is a whole-tree failure in **normal weather**. Given the tree's large size, off-center decay, insufficient sound wood thickness, breaches in the trunk, and height prominence in the landscape, this tree is categorized as **MODERATE RISK** for the adjacent homes, and **LOW RISK** for the powerlines and people.

Additional Concerns *(required)*
The small dead branches in the canopy over your patio are also likely to fall during normal weather. Given their small size, location low in the canopy, the infrequent use of the patio by people, the risk to people is categorized as **LOW RISK**.

Risk Ratings Explained *(required)*

> **What does MODERATE RISK for the adjacent homes mean?** Risk ratings are comprised of three parts. My assessment determined that within the 2-year time frame:
>
> 1. The likelihood of failure is <u>probable</u>

2. The likelihood of striking a valuable asset (either home) is medium. (As the canopy is symmetrical there is a greater than 50% chance the tree will fall away from the homes).
3. The consequences (damage) of this event would be significant (considerable damage would be done to the house)

What does LOW RISK posed by small dead branches for people mean? Risk ratings are comprised of three parts. My assessment determined that within the 2-year time frame:

1. The likelihood of failure is probable
2. The likelihood of striking a valuable asset (people) is unlikely. (As your patio has infrequent use it is unlikely that someone will be present when they fall).
3. The consequences (damage) of this event would be minor (injury from a small dead branch falling from a low height striking a person)

Risk Tolerance *(required)*
Risk tolerance is the amount of risk you are willing to accept. Different people have varying amounts of risk they will tolerate. You will have to decide your own risk tolerance and decide on a course of action for this tree. Be aware that all trees begin at a **low** risk rating

RISK MITIGATION OPTIONS *(required)*
There are a few options that can be considered for mitigation to lower your risk from this tree.

1. Pruning to reduce the length of 10 of the highest branches by 30%. Unfortunately, the branching nature of elderly red maple trees makes reduction pruning difficult. Many **heading** cuts may be necessary to get the 30% length reduction. The heading cuts may lead to internal branch decay that will need to monitored and mitigated over time. With this treatment the **residual risk** rating would become **LOW.**

2. Do nothing and continue to monitor the tree with regular inspections.

REINSPECTION *(required)*
This tree should be re-inspected every 6 months unless you have additional health or safety concerns that warrant more frequent attention. Tree inspection services should be performed by an ISA Tree Risk Assessment Qualified (TRAQ) arborist skilled in the science of tree risk assessment. I can perform these services should you desire.

ASSUMPTIONS AND LIMITING CONDITIONS *(required)*
My inspection was a ground based visual inspection that also included internal drilling to detect decay. The inspection was limited to defects that can be seen while standing on the ground. There may be defects below ground or in the canopy that were not visible from this perspective. These hidden defects may result in the failure of branches, trunks, or

roots. No other trees on this property were inspected other than those specifically addressed in this report.

GLOSSARY *(optional)*

Normal Weather. This tree risk assessment is based on 'normal weather' for the region. Hurricanes are considered 'abnormally extreme' weather and were not considered in this risk assessment. Any tree can fail during abnormally extreme weather.

Response growth. Response growth is wood formation that compensates for weaknesses caused by defects that naturally occur in trees, like hollowness.

Level 2 Tree Risk Assessment. A level 2 Tree Risk Assessment is a basic assessment providing a detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that the tree risk assessor inspect completely around the trunk looking at the visible aboveground roots, trunk, branches, and site.

ISA Tree Risk Assessment Methodology – the categorization of tree risk based on the ISA's Best Management Practices categorization of likelihood of tree failure, the likelihood of impacting a defined asset, and the likely consequences of the failure and impact. The four categories of tree risk are low, moderate, high and extreme.

Level 3 Tree Risk Assessment. A level 3 Tree Risk Assessment is an advanced assessment performed to provide detailed information about specific tree parts, defects, assets, or site conditions. Specialized equipment, data collection and analysis, and/or expertise are usually required.

DBH. DBH stands for Diameter at Breast Height and it is the diameter of the tree measured at 4.5 feet above the ground.

Decay Formula. The tree risk decay formula is based on 'mechanical pipe formula' and is a ratio of stem wall thickness to diameter. The physical loss of more than two-thirds of the trunk makes the tree likely to fail during normal weather. The 'decay formula' assumes a centered symmetrical decay pattern and a tree with a balanced canopy. The decay formula is a starting point and many other factors must be weighed that increase or decrease likelihood of failure.

Residual Risk. Residual risk is the risk rating after a mitigation action is completed.

Risk Ratings Range. The range of possible risk ratings is low, moderate, high, and extreme.

Normal Weather
Weather common in this area, storms that typically occur every year. Normal weather for Southwest Florida is defined as a thunderstorm that produces 50 to 55 mph wind gusts and heavy rain.

Heading cuts. A pruning cut that removes a branch or stem between nodes leaving a stub.

Time Frame. Time frame is the duration of time for the assessment.

If you have any questions regarding the report, please do not hesitate to call me. I will be happy to discuss it with you.

Respectfully,

John Q. Arborist, *(required)*
Certified Arborist, FL-00000 *(required)*
Tree Risk Qualified

NOTICE

This example Tree Risk Report meets and sometimes exceeds the required components of a tree risk report as required by ANSI A300 (Part 9), and the related BMP. This example report is not endorsed, recognized, sanctioned, approved, or recommended by: the International Society of Arboriculture, or The Florida Chapter ISA or any of their employees, directors, or members.

This example Tree Risk Report is the work product, opinion, view, judgement, and conclusion of Norm Easey, Consulting Urban Forester.

Norm Easey is not an attorney and is not providing a legal opinion, and is not offering any service that can, by law, be performed only by an attorney.