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January 6, 2017

VIA E-MAIL TO: mgushiken@uslegalteam.com

Bernard Hecht and Timothy McLane
c/o Mark Gushiken, Esquire
Widerman Malek, Attorneys at Law
1990 West New Haven Avenue, Suite 201
Melbourne, FL 32904

Re: Royal Poinciana Tree Evaluation

Property Location: 913 White Street, Key West, Florida 33040

Dear Mr. Hecht and Mr. McLane:

Please find enclosed the summary of my recommendations regarding the Royal Poinciana tree located in the adjacent yard of your above property which explains my observations, analysis and conclusions for the subject tree.

I sincerely appreciate the opportunity you have extended to Lauderdale Tree Service, Inc. If you have any questions or comments, please do not hesitate to contact me by phone or via e-mail at your convenience.

Very truly yours,

James LeGette

Enc: Royal Poinciana Tree Evaluation: Recommendations as to health and structural condition and its impact on the immediate surroundings.



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ROYAL POINCIANA:

Recommendations as to Health, Structural Stability and Impact on Immediate Surroundings

Prepared for:

Bernard Hecht and Timothy McLane
c/o Mark Gushiken, Esquire
Widerman Malek, Attorneys at Law
1990 West New Haven Avenue, Suite 201
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Prepared by:

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SUMMARY

Attorney Mark Grushiken, who represents Mr. Bernard Hecht and Mr. Timothy McLane, contacted me in late December 2016 via telephone. He requested an independent and objective opinion with respect to the health and **structural stability** of the large Royal Poinciana tree located next to his client's property at 913 White Street, Key West, Florida, as well as its impact on the surrounding areas. A formal written tree evaluation report was requested to be presented to the appropriate parties in order to obtain a permit to perform major maintenance on the subject tree.

After the site inspection which took place on January 2, 2017, and additional research on the internet, it was discovered that the tree in question is a protected species of **heritage tree** status pursuant to the Key West Tree Ordinances. The tree canopy is extends over the sidewalk and street by about 50% with the other half of the canopy equally spread over the two properties located at 913 White Street and 919 White Street. In addition, the tree has produced **buttress roots** which have grown outward from the tree which have damaged our client's cement wall between the two properties, their gated garage entrance, the driveway and has lifted city property including the sidewalk and street. Upon further observation of the surrounding neighborhood, most of the other mature trees have likewise caused lifting in the sidewalk and roadway.

I have listed in my report factors to consider with regard to maintaining the tree, properly pruning the tree and correcting the existing property damage. It is my intention that this information will assist in the obtaining of the required major tree maintenance permit which will benefit the homeowners, the tree, and the City of Key West.

INTRODUCTION

Background

James LeGette of Lauderdale Tree Service, Inc., was contacted by Mark Grushiken, Esquire, in late December 2016. Mr. Grushikin's clients have a large Royal Poinciana tree located in the neighbor's yard in front of their residence. The concrete wall in between the properties has multiple cracks in it, the driveway has been damaged by the subject tree, and its roots have also impacted the sidewalk and roadway.

The undersigned scheduled an inspection of the property site for January 2, 2017, to **visually evaluate** the subject tree and the surrounding perimeter and to make recommendations to be presented in support of a tree permit for major maintenance.

Assignment

Lauderdale Tree Service, Inc., was hired to render an independent and objective opinion based upon a visual inspection with regard to the structural stability and health of the Royal Poinciana tree at 919 White Street in Key West, Florida. Our company was also asked to ascertain how the

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principal tree parts interact with the immediate surroundings. Potential options in resolving tree/surrounding conflicts were also requested with the understanding that a tree maintenance permit was being sought. A formal tree evaluation report would be written summarizing the visual findings.

Limits of Assignment

The recommendations contained in this document relate to one large Royal Poinciana tree and are for the exclusive use of Mark Gushiken, Esquire, and his clients, Mr. Bernard Hecht and Mr. Timothy McLane.

This report is to be utilized as a formal tree evaluation report as requested by the clients. The observations and conclusions were based upon one visual site inspection which took place on January 2, 2017, and additional research via the internet.

Purpose

This written tree evaluation report is for the purpose of assisting Mr. Gushiken's clients in determining the overall health and structural condition of the Royal Poinciana tree as well as how the tree interacts with the immediate surroundings and to supplement and reinforce the request for a major tree maintenance permit. The permit is needed to minimize future damage from being caused by subject tree and also to enhance its appearance, health and livelihood. The report and the information therein will be the sole property of Mr. Gushiken to be utilized and furnished to his clients and any other parties as he deems necessary.

OBSERVATIONS

The undersigned conducted a site visit on January 2, 2017, per the request of Attorney Mark Gushikin. He reiterated that he needed to know the health and structural condition of the Royal Poinciana tree adjacent to client's home and its interaction on the surrounding property with an ultimate goal of obtaining the required permit to properly prune said tree.

The Royal Poinciana tree (*Delonix regia*) is a mature tree in the subject area and contributes significantly to the street tree canopy. Its age is unknown. (See Photo #1).

Additional information obtained using a standard measuring tape showed the approximate height of the tree to be 30' with a **crown radius** of 60'. The canopy is about 50% over the sidewalk and street, 25% over our client's home and 25% over the next door property who owns the tree. (See Site Sketch). The diameter or circumference of the trunk is 41'. (See Photo #2).

The **root zone** is not in proportion to the tree size, and there is obvious lifting of the surrounding areas by the roots. The presence of major girdling roots are indicative of trees growing in

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confined areas. There are two moderately-sized exposed roots in the landscape strip between our client's property and the separating wall.

There are multiple house drop power lines passing through various areas of the canopy.

The leaves have standard color, size and thickness for the species.

There does not appear to be any evidence of insect infestation, however, I was unable to conduct a thorough physical inspection due to limited access.

There are some areas of suspected **sun scald** on the tree scaffolding limbs. This damage is typically found on the southwest side of the tree's canopy which is true in this case.

The Royal Poinciana tree appears relatively healthy with scaffolding limb structure and canopy typical for this species. However, this is an older tree showing signs of excessive wear and tear. The tree has one major leader extending northeast which should be subordinated or reduced significantly. "V" crotches with included bark are present in most limb attachment points.

The subject tree is positioned in the front of the neighbor's property which is within city limits of a neighborhood of historic homes some of which have been renovated into small offices and businesses. The tree is actually squeezed between the driveway to the south and our client's wall to the north. (See Photo #3). It is 28" from the wall to the driveway. The wall itself is 8" thick and 5 ½' tall and is made of concrete. There are obvious cracks in the wall and some lifting of the driveway. (See Photo #4). The gated entrance has also been compromised and is inoperable due to the roots. The sidewalk and street area have been affected as well and are lifted and buckled.

TESTING AND ANALYSIS

With the use of a standard 6-foot measuring tape, I recorded the approximate diameter, canopy spread, height, trunk and stem dimensions of the subject tree. I also measured the height and width of the concrete wall as well as the distance from the wall to the driveway with this method.

The internet was utilized to determine certain facts regarding the Royal Poinciana tree including, but not limited to, its scientific name, **life expectancy**, etc. (<http://www.en.m.wikipedia.org>).

DISCUSSION

The Royal Poinciana tree is actually native to Madagascar but has been exported worldwide as it is considered a premier flowering tree. Unfortunately, this species has a relatively short lifespan of approximately 40 years. About a decade before its demise, it becomes more susceptible to

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disease and damage as its branches become less flexible. In Key West, which is hurricane prone, this can be catastrophic. (Robinson, Robin, 05/17/2015. Article in <http://keysnews.com>.)

An additional concern with this species is the root system. Royal Poinciana trees typically produce buttress roots which, due to the island's shallow soil base of approximately 18", tend to grow outward instead of downward. Throughout the city, these roots tend to grow in what little empty space is available and impact the adjacent sidewalks, driveways and other structures. In this case, the cement wall, driveway and gated entrance of our client's home have been affected.

Even though the Royal Poinciana tree is not native, it is protected as a heritage tree by the Key West Tree Ordinances. Therefore, removal of same would require approval which would only be granted in extreme circumstances. In this case, however, a permit for major maintenance trimming of the tree is being sought due to the damage that has occurred and will continue to occur on our client's property.

CONCLUSION

I was hired by Attorney Mark Gushiken on behalf of his clients, Bernard Hecht and Timothy McLane, to render my professional opinion if the Royal Poinciana tree in question is healthy and structurally sound. The clients also wanted to know how the principal tree parts interact with the surrounding area and whether or not this specific tree has resulted in damage to their residence including, but not limited to, the concrete wall, driveway and gated entrance. I was also retained to evaluate this tree for purposes of obtaining a tree major maintenance permit as required by the City of Key West.

It is my professional opinion that the subject tree is relatively healthy. It is evident to the naked eye that the Royal Poinciana tree and its parts are significantly affecting the surrounding area. There is also the potential for tripping hazard to people due to the buckling sidewalk and roadway and large overhanging limbs as this is a pedestrian and vehicular thoroughfare. Trees prune themselves, and they shed unwanted and dead limbs. The fact that the tree canopy extends over this pedestrian and vehicular area further adds to the potential for damage and/or injury from falling tree parts.

RECOMMENDATIONS

One potential solution would be to remove the tree. However, with the current municipal codes and the attitude of the local population of saving these protected species of trees, it is highly unlikely to be approved for removal. Also, it may set a precedent for the removal of all other trees in similar situations of which there are many.

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To improve canopy balance and integrity, optimum results would be achieved if the entire canopy was pruned at the same time, however, not to exceed a 30% reduction of tree parts.

Proper pruning by an **ISA Certified Arborist** is strongly suggested. The larger and longer limbs should be subordinated so that they are in proper aspect ratio with the parent stem. The subordination of excessively long limbs should be at the discretion of the performing arborist so that limb load vs. attachment point ratios are within limits. Some **root pruning** may be necessary to achieve the desired results and in order to repair the wall/driveway area. The arborist should work in concert with wall restoration personnel. It is my recommendation that a tree permit for the above major maintenance should be obtained as soon as possible. A tree fertilization regiment may be considered, as this would promote the biological health of the tree.

Historically, the suggested resolution of the tree/wall conflict is to demolish the section of the wall that is being displaced by the tree and then use either pin or auger piles to create footer attachment points to float a beam over the affected root zone. The wall may then be recreated using the newly-formed floating footer. This is the least invasive option to preserve the tree's root system and integrity and is quite effective, has reasonable longevity and would be a cost effective solution.

The entrance gate could be repaired by shimming gate hinges to achieve alignment.

Key West's land mass is only 4.2 square miles. Compromise must be reached to accommodate both nature and people so that they may co-exist on this island.

GLOSSARY

Buttress roots – A tree root whose upper, exposed parts project from the trunk like a buttress.

Crown radius – Branches, leaves and reproductive structures extending from the trunk or main stems of the tree.

Dominant tree – The largest tree on a particular portion of property.

Growth cycle – The series of stages through which a living thing passes from birth until death.

Heritage tree – Typically a large, individual tree with unique value which is considered irreplaceable. The major criteria for heritage tree designation are age, rarity, and size, as well as aesthetic, botanical, ecological, and historical value.

ISA Certified Arborist - An arborist who has been certified by the International Society of Arborists.

Life expectancy – A statistical measure of the average time an organism is expected to live.

Root pruning – Process of cutting back long roots to encourage a tree or shrub to form new roots closer to the trunk. .

Root zone – A circle on the ground corresponding to the dripline of the tree.

Structural Stability – Assessment of tree strength and how it copes with wind and other elements of nature

Sun scald – Damage to plants or trees caused by excessive sun or alternation between sunshine and cold weather.

Visually evaluate – Observation of the obvious, external features (usually without the aid of an instrument) to arrive at a general estimate.

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BIBLIOGRAPHY

Www.wikipedia.org – Website used for definitions (accessed January 4, 2017).

www.en.wikipedia.org/wiki/Delonix_regia - Website used for life expectancy and other facts regarding royal Poinciana tree (accessed January 2, 2017).

Robinson, Robin. (2015, May 17). *Blooming royal poinciana trees can present royal problems*. Retrieved from <http://keysnews.com>

APPENDIX 1 – SITE PHOTOS



Photo #1 - Canopy spread



Photo #2 - Trunk diameter



Photo #3 – Tree squeezed between driveway and wall



Photo #4 – Cracks in wall

APPENDIX 2 – SITE SKETCH

