



Plant Healthcare Consultants, Inc.

American Society of Consulting Arborist ▪ International Society of Arboriculture
Massachusetts Arborist Association ▪ Massachusetts Tree Wardens and Foresters Association
TREE INVENTORIES ▪ APPRAISALS ▪ DIAGNOSIS ▪ TREE RISK ASSESSMENTS



Tree Study 179 Lexington Street Belmont, MA 021478

Prepared for:

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Prepared by:

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Summary

Per the bylaws of Belmont, MA, I prepared a Tree Study for the proposed construction site at 147 Lexington Street, Belmont, MA. There are a total of sixteen trees (one tree previously removed) included in this study.

Only two of the trees are Significant Trees, per the ordinance. The *Platanus × acerifolia* (London Planetree), a public shade tree in the front planting strip, and a very old and declining *Thuja occidentalis* (Arborvitae) at the left rear corner of the garage.

All the rest of the trees on the property have diameters under 8" and are not under the dominion of the tree protection ordinance.

Tree protection, including a tree protection zone (TPZ) fence with signage, will be erected to protect the critical root zone (CRZ) of the *Platanus*. The *Thuja* should be removed due to the condition of the tree, more akin to a stump with spouts, as it is in danger of falling and causing damage. As such, no mitigation is suggested for this tree.

Additionally, as an action item requested by the Belmont Zoning Board, I was asked to evaluate the plans for the development of the site with a focus on how it may affect the neighbor's trees along the common boundary between 147 & 151 Lexington Street.

It is my opinion that the proposed construction will have minimal negative effects on the neighbor's trees. I have expounded on this in the Discussion section of this report.

I included recommendations for tree protection in this report.

Introduction

Background & History

On May 22, 2023, Mr. James Patnaude of Avatar Construction called my office seeking the assistance of a consulting arborist on a project in Belmont, MA. Mr. Patnaude explained that per the Town of Belmont bylaws a Tree Study must be submitted to receive approval for the construction project to proceed.

Mr. Patnaude went on to inform me that the new plans call for a multi-unit residence with under-building parking. Mr. Patnaude told me that there is concern from the

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neighbor's that the excavation to regrade the drive and parking will negatively impact the trees along the boundary line. This was presented at a public meeting of the Zoning Board. I agreed to assess site, trees, and plans to proffer an opinion.

I agreed to assist Mr. Patnaude with the project and scheduled a site visit for May 27, 2023, at 10:00 am to inspect the site and gather data for this Tree Study.

Assignment

The scope of the assignment was for me to collect the necessary data to create a Tree Study, in accordance with the Town of Belmont bylaws, for Avatar Construction.

The Tree Study includes:

- Inventorying the protected trees: species- diameter at breast height ("DBH"),
- Plotting the trees on a site plan
- Establish and denote a recommended Tree Protection Zone ("TPZ")
- Recommendations to maximize the tree's survivability during construction

I also was asked to assess the neighbor's trees, on the south side of the shared boundary line to determine if the construction will negatively impact the trees.

Limits of Assignment

The recommendations and conclusions provided in this report are based on my visual observations only. I did not examine the plant's interiors nor did I collect soil or plant tissue samples for laboratory testing.

Purpose and Use of Report

This report was created to meet the Tree Study requirements for Belmont, MA. It will be submitted to the Town of Belmont Tree Warden for review and approval. This report also addresses the concerns presented by the Zoning Board regarding impact of the construction on the neighbor's trees.

This report is the property of Avatar Construction and may be used and shared as they deem necessary.

Observations

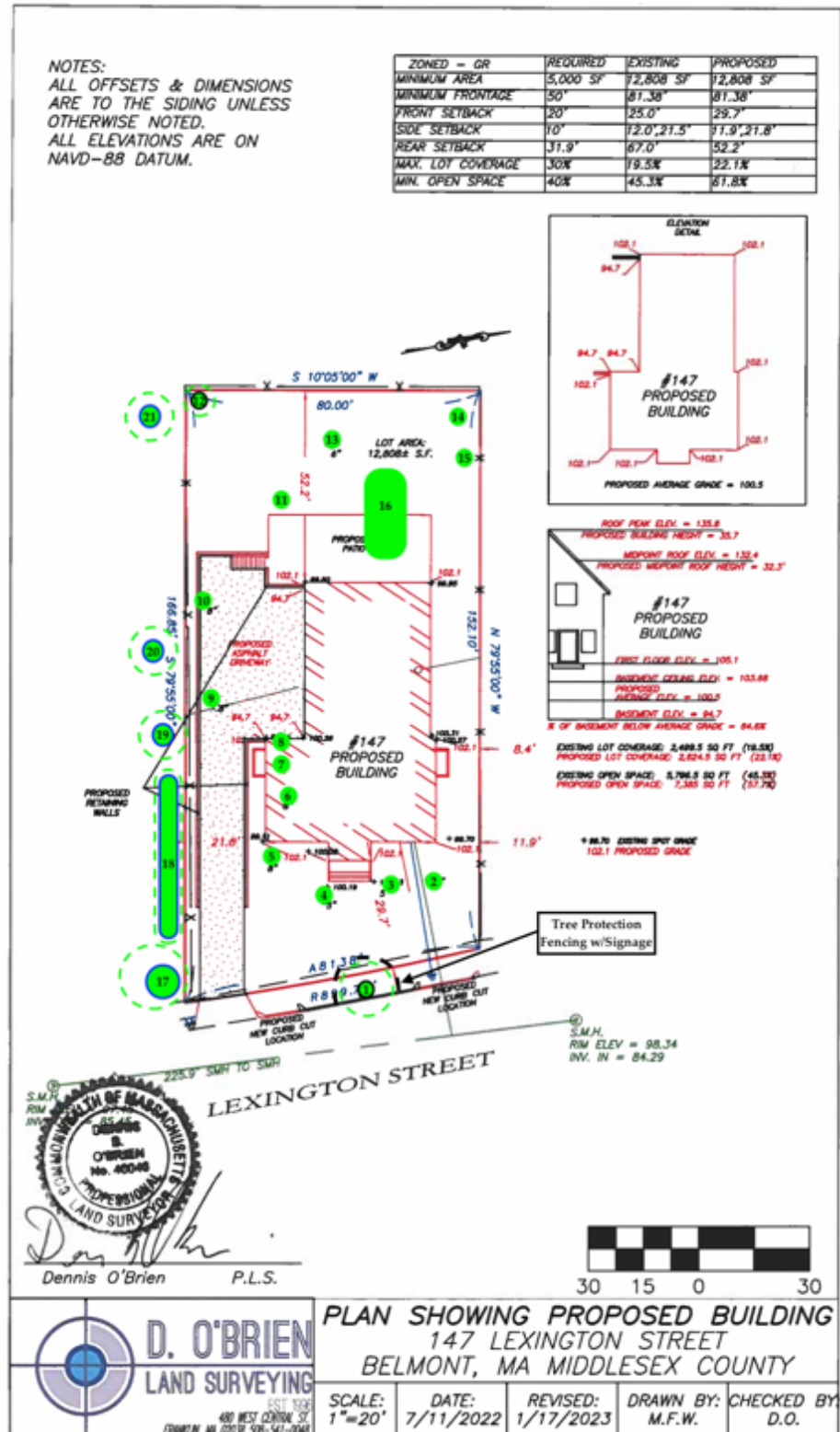
On May 27, 2023, at 10:00 am I conducted a site visit to 147 Lexington Street, Belmont, MA. The site bounded to the east by Lexington Street and the north, south and west by a residence.

I identified and inventoried the trees on the site as well as the trees of concern on the neighbor's property at 151 Lexington Street.

I plotted the trees on the site plan, see Tree Maps, page #4 - #6. I collected data on the trees and compiled it on the tables on page #7. I also photographed all the trees, see Tree Photographs, pages #10 - #32.

There is ample access to the front of the property from Lexington Street, allowing construction equipment complete access to the site. This will allow for a semi-permanent tree protection fence, with appropriate signage, to be erected around the preserved tree in the Tree Save Area, encompassing the CRZ. This will provide an adequate TPZ for the significant, protected tree.

Tree Maps

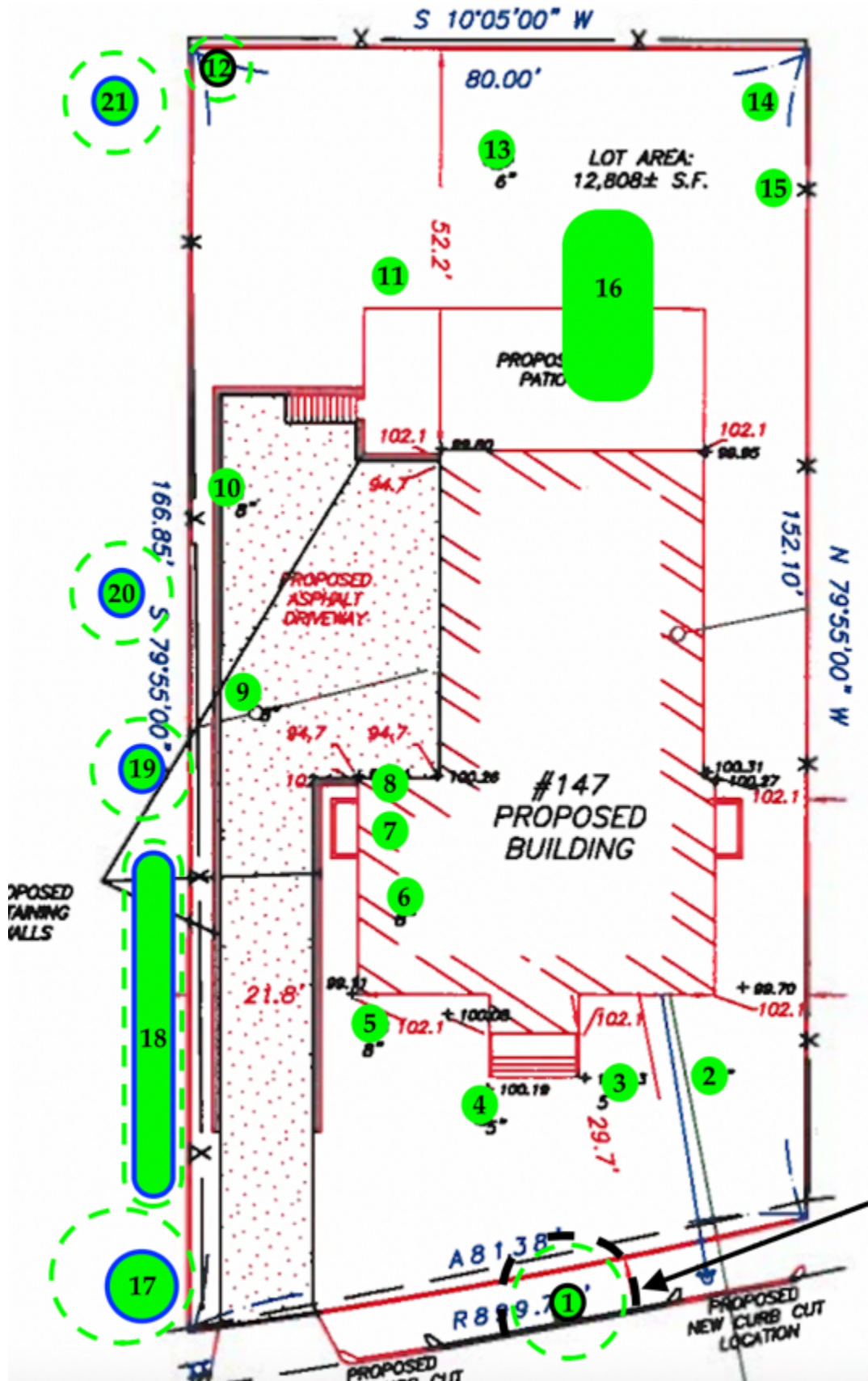


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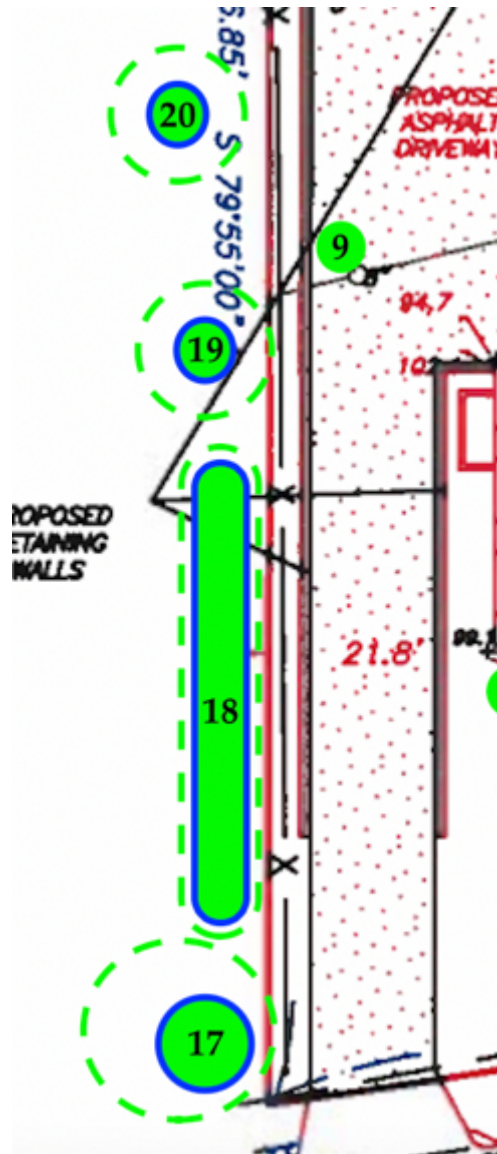


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Tree Inventory

147 Lexington Street

ID #	Species - Common	Species - Latin	DBH in"	Significant	Preserve	Mitigation Required
1	London Plane	<i>Platanus × acerifolia</i>	12	Yes	Yes	No
2	Canadian Hemlock	<i>Tsuga canadensis</i>	5	No	No	-
3	Canadian Hemlock	<i>Tsuga canadensis</i>	4	No	No	-
4	JPM Rhododendron	<i>Rhododendron x 'P.J.M.'</i>	3	No	No	-
5	Canadian Hemlock	<i>Tsuga canadensis</i>	7.5	No	No	-
6	Crabapple	<i>Malus spp.</i>	6.5	No	No	-
7	Crabapple	<i>Malus spp.</i>	7	No	No	-
8	American Holly	<i>Ilex opaca</i>	3	No	No	-
9	Common Pear	<i>Pyrus communis</i>	5	No	No	-
10	Apple	<i>Malus pumila</i>	6	No	No	-
11	Yew	<i>Taxus cuspidata</i>	3	No	No	-
12	Arborvitae	<i>Thuja occidentalis</i>	10	Yes	No	N –Poor Condition
13	Crabapple	<i>Malus spp.</i>	5	No	No	-
14	Peach	<i>Prunus persica</i>	7.5	No	No	-
15	Peach	<i>Prunus persica</i>	7	No	No	-
16	Grape	<i>Vitis spp.</i>	5	No	No	-

151 Lexington Street – Neighbors Along South Property Line

ID #	Species - Common	Species - Latin	DBH in"
17	Black Locust	<i>Robinia pseudoacacia</i>	30
18	Arborvitae Hedge	<i>Thuja occidentalis</i>	-
19	Norway Maple	<i>Acer platanoides</i>	12
20	Norway Maple	<i>Acer platanoides</i>	12
21	Norway Maple	<i>Acer platanoides</i>	12

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Discussion

147 Lexington Street

Of the sixteen trees on this site only two are significant, Tree #1 and Tree #12. Tree #1 will be protected. I recommend tree #12 be removed as it is literally, falling apart. It is a stump, approximately 8' tall, of an Arborvitae that broke off and is sprouting a few branches of foliage. The stem is totally rotted, and you can see right through the trunk.

The other 14 trees and shrubs on this site are in fair-poor condition at best. None of these trees are under any restrictions by the tree protection ordinance. Removal of these trees would be appropriate.

151 Lexington Street –

I examined four trees and a row of arborvitae just over the property line on 151 Lexington Street. These are the trees that are of concern regarding the construction at 147 Lexington Street.

I identified a 30' DBH *Robinia pseudoacacia* or black locust, three 12" DBH *Acer platanoides* or Norway maples, and a row of approximately six *Thuja occidentalis* or Arborvitae.

All the tree I inspected are in good condition. They have full canopies and well colored foliage. There does not appear to be any significant defects or structural issues. I saw no indication of insect or disease pests.

The primary concern is whether the construction, specifically the excavation for the new driveway, will negatively impact and damage these trees.

Tree #21 is far to the rear and will not be directly impacted at all so I will not address this tree further.

The other trees and hedge are close to the property line and excavation will have some level of impact to the root systems of these plants. I do not think the effects will be excessive or damaging. The main reason for this conclusion is that there is an existing driveway in the area of excavation.

Tree roots are advantageous and will seek the path of least resistance to establish root development. Tree roots grow where there is air space and water. In a scenario like

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this one the trees have an option to push root growth in an established lawn and wooded area or under a driveway where the soil is compacted and covered with an impervious surface. This is not to say that roots will not grow under a driveway, especially if there are limited other options, but given the choice, roots will grow where it is easier. Based on that principle, I believe that the excavation will result in minimal root loss for the plants.

Also, considering the health and condition of these trees, they should handle the stress of construction quite well.

The main concern that I see is around the black locust and the proximity of the site to the large, supporting roots. The grade change at this area is minimal so if care is taken, working around any large roots should be manageable.

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Tree Photographs – 147 Lexington Street





Tree #2 was removed.





Tree #4





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Tree #9

Tree #10



Tree #11

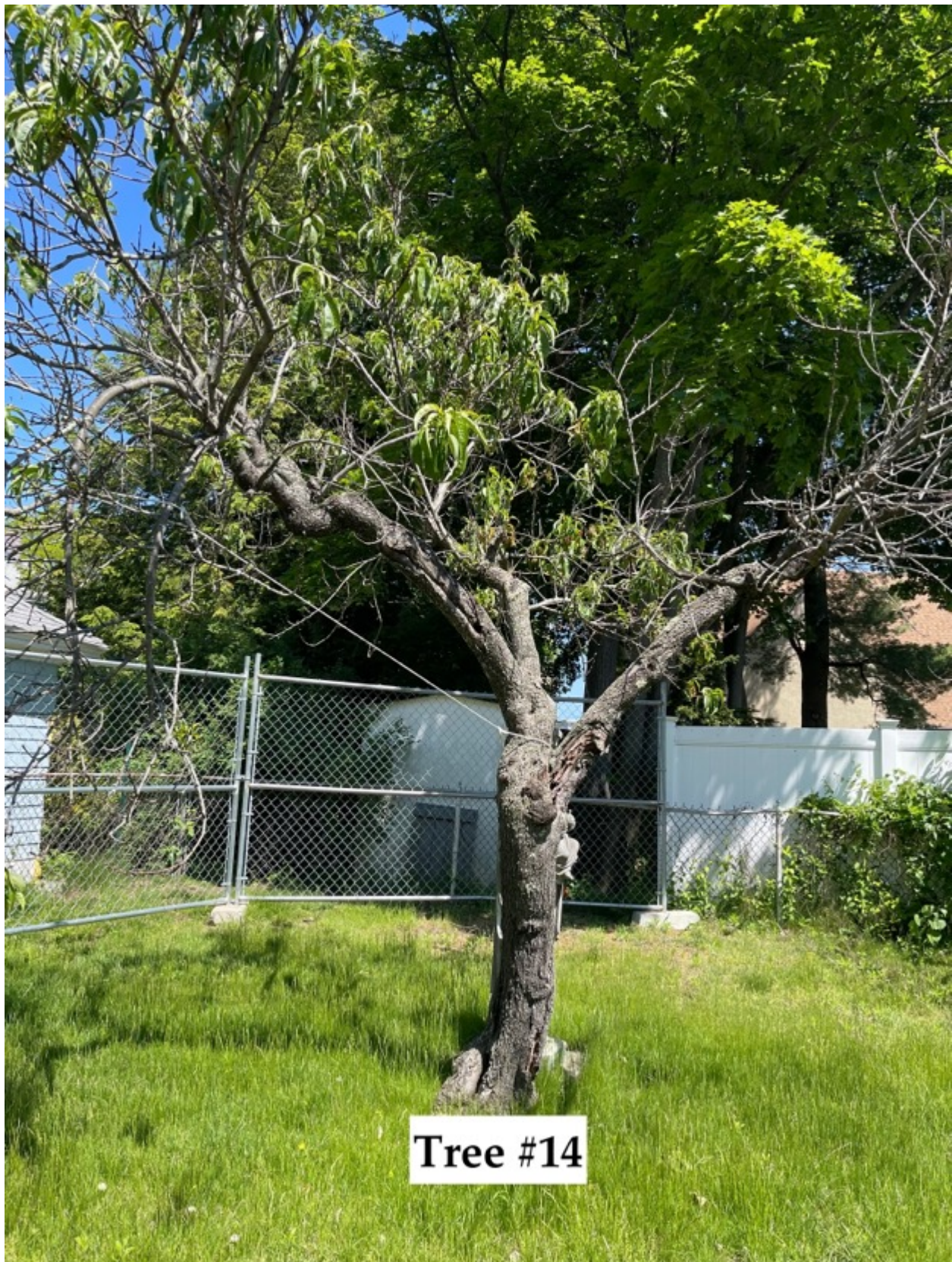




Tree #12
Cavity all the way through trunk



Tree #13







Tree Photographs – 151 Lexington Street

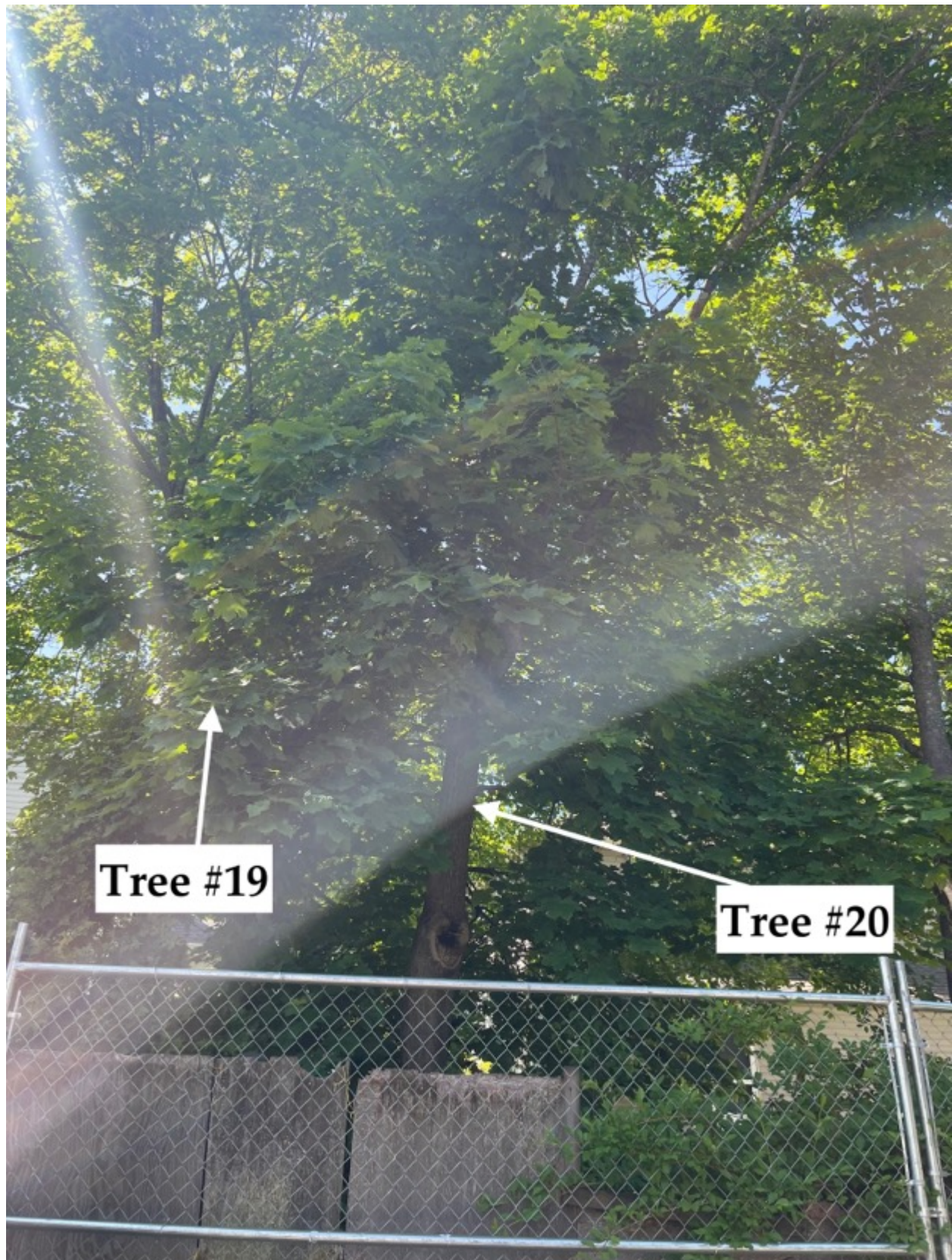


Tree #17











Conclusion

There is ample access to the site from Lexington Street. There is adequate space on the property to establish a Tree Protection Zone that encompasses the Critical Root Zone of the protected tree at the front of the property.

Based on my education, training, and many years of experience in the field of arboriculture it is my opinion that the significant tree proposed for preservation on the property can be protected during the construction project. I believe the Tree Protection Plan outlined in this report is suitable and reasonable for the site location.

No mitigation planting is required for this project.

It is my opinion that the proposed construction will have minimal negative effects on the neighbor's trees. The excavation will result in minimal root loss for these plants.

Recommendations

I recommend installing a semi-permanent fence as detailed in the Tree Map. This will protect the critical root zones of the protected tree. The fencing should be installed prior to the start of construction and remain in place for the entire project. The fence should not be moved, removed, or disturbed during the project. No equipment, supplies, materials, or spoils should be placed inside the tree protection fencing. There should be signs on the fence denoting that it is a tree protection area and not to disturb the area.

It is also important that the trees receive sufficient water during the project. I recommend supplemental irrigation for the trees if needed.

Proposed Mitigation Plan

The applicant putting forward that no mitigation is required on this project. There are only two Significant trees on the property: the *Platanus* on the street and the *Arborvitae* behind the garage. The *Platanus* will be protected and preserved throughout the project. The *Arborvitae* is nearly dead and severely decayed.

Appendix A - Assumptions and Limited Conditions

1. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.
2. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. The consultant shall not be required to give testimony or to 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.
4. Unless required by law, otherwise, 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 expressed written or verbal consent of the consultant.
5. Unless required by law, 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-particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant as stated in his qualifications.
6. This report expressed herein represent the opinion of the consultant, and the consultant'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.
7. Sketches, drawings, 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 unless expressed otherwise. The reproduction of any information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by *Plant Healthcare Consultants, Inc.* as to the sufficiency or accuracy of said information.
8. 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 unless otherwise specified. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.
9. Loss or alteration of any part of this report invalidates the entire report.

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Appendix B - Certification of Performance

Plant Healthcare Consultants, Inc. certify that:

1. We have personally inspected the tree and property referred to in this report and have stated our findings accurately.
2. We have no current or prospective interest in the trees or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
3. The analysis, opinions and conclusions stated herein are our own and are based on current scientific procedures and facts.
4. Our analysis, opinions and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices.
5. No one provided significant professional assistance to us, except as indicated within the report.
6. Our compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party or upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

We further certify that Plant Healthcare Consultants, Inc. is a member in good standing of the Massachusetts Arborist Association, American Society of Consulting Arborists, the International Society of Arboriculture and Massachusetts Tree Wardens and Foresters Association. We have been involved in the field of Arboriculture for over 60 years.



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ISA Tree Risk Assessment Qualified
Massachusetts Qualified Tree Warden #1097

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