



**TOWN OF BROOKLINE
TREE PRESERVATION BY-
LAW RULES AND
REGULATIONS**

October 2023

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1. Purpose

The Town of Brookline approved Article 8.41, the Tree Preservation By-Law (“Tree By-Law”) at the November 2022 Special Town Meeting. The Tree By-Law encourages the preservation and protection of certain trees in connection with significant demolition activity, construction activity, or both. Under the Tree By-law, applicants must protect trees within designated areas of a lot and mitigate any trees removed by either the replanting of trees or payment of fees to support the Town’s tree planting and maintenance efforts.

These rules and regulations shall be used to administer the Tree By-Law, including:

- The criteria used to determine when a project is subject to the Tree By-Law;
- How to measure protected and replanted trees;
- How and when to submit a Protected Tree Removal Permit;
- Required elements of a Tree Protection and Mitigation Plan;
- Steps to be taken if a property does not have any protected trees;
- How to complete the mitigation process;
- How to make changes when needed; and
- Enforcement procedures.

2. Application of the Tree Preservation By-Law

As stated in Section 4 of the Tree By-Law:

1) Within all residential districts¹ of the Town, it is prohibited to remove a Protected Tree² without a Protected Tree Impact and Removal Permit during construction or within the 12 months prior to submitting an application for a demolition or building permit for:

- (a) demolition of an existing structure of 250 gross square feet or greater;
- (b) construction of any building or structure on a vacant lot; or
- (c) construction of one or more structures or additions to structures on a lot that increases the Gross Floor Area (GFA) by 50% or greater, as defined by Zoning By-Law Section 2.07.1.

2) The requirements of this By-Law shall not apply to:

- (a) those areas of a property under the jurisdiction of the Wetlands Protection Act (Chapter 131 and 310 CMR);
- (b) Public Shade Trees pursuant to M.G.L. Chapter 87;
- (c) emergency projects deemed necessary for public safety, health and welfare, as determined and confirmed in writing by the Reviewing Agent or the Town’s Tree Warden;
- (d) trees severely damaged as the direct result of a natural disaster;
- (e) trees in poor condition that are deemed hazardous in writing by a Certified Arborist; or

¹ As defined in Article III, Section 3.01 of the Zoning Bylaw

² As defined in the Tree By-law and Section 3 of these Rules and Regulations below.

(f) trees currently infected by a disease or insect infestation of a permanent nature, as determined and confirmed in writing by a Certified Arborist.

To avoid any inadvertent removal of a Protected Tree due to nearby construction activities, the Town strongly encourages applicants to file a Tree Protection and Mitigation Plan prior to any site work or construction activity on a lot that contains a Protected Tree, even if no Protected Tree removal is planned.

3. Identifying Protected Trees

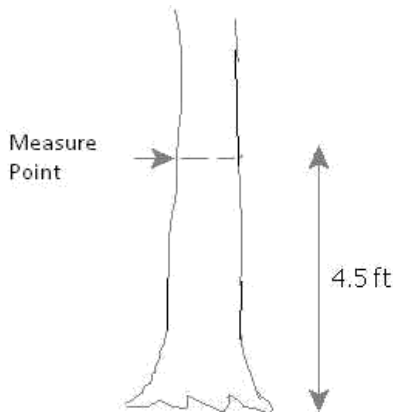

The Tree By-Law defines Protected Trees as any existing tree with a Diameter at Breast Height (DBH) of six (6) inches or greater that has any portion of its trunk within a Tree Yard at grade level. Invasive Species³ shall not be considered Protected Trees.

The Tree Yard is the area of a lot⁴ that is located within 20 feet of any property line.

The following formula shall determine the diameter:

Tree circumference at breast height $\div \pi = \text{diameter}$

Example: Tree circumference at breast height = 32" $\div \pi$ (i.e., 3.1415926) = 10.18" DBH

To measure Diameter at Breast Height (DBH):	
<p>Figure 1. Standard Tree</p> <p>The standard measure of tree size for those trees existing on a site that are at least six (6) inches in diameter at a height of four and one-half (4.5) feet above the existing grade at the base of the tree. If located on a slope, measure on the uphill side of the tree.</p>	
<p>Figure 2. Tree has branches or swelling which interferes with DBH measurement at 4.5 ft</p>	

³ Any plant or tree listed on the most recent version of the [Massachusetts Prohibited Plant List](#) as published by the Massachusetts Department of Agriculture, or currently listed as “likely invasive” or “potentially invasive” by the [Massachusetts Invasive Plant Advisory Group](#) (MIPAG).

⁴ As defined in Section 2.12 of the Zoning By-Law.

Measure DBH below the branch or swelling immediately below the point where swelling or branches cease to affect diameter of the stem. Record the height at which the diameter was measured.

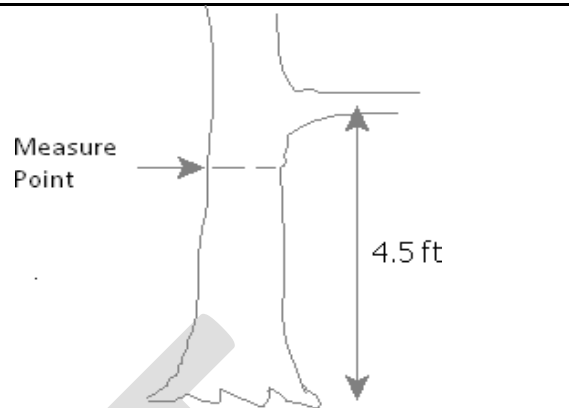
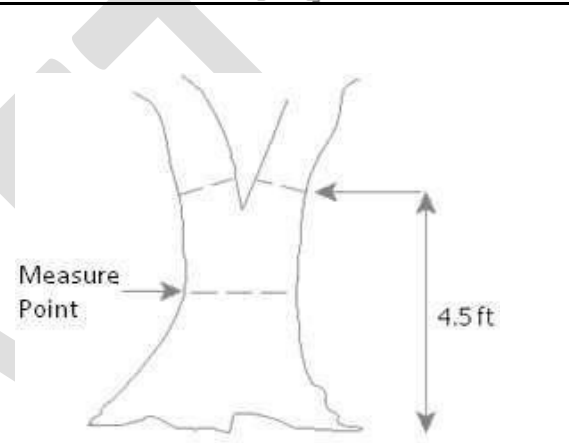


Figure 3. Multi-Stemmed Trees

If a tree splits into multiple trunks below four and one-half (4.5) feet above the existing grade, the DBH shall be considered to be the measurement taken at the narrowest point beneath the split. The height of the DBH measurement and the fork should be noted (e.g., 3 ft diameter @ 2 ft [Forks @ 4 ft]).



4. Submission Requirements

Where an applicant proposes the removal of one or more Protected Tree(s), the applicant must first obtain a Protected Tree Impact and Removal Permit. Additionally, where an applicant proposes construction activity on a residential lot with any Protected Trees, but with no Protected Tree removals, the Town strongly encourages applicants to submit written documentation identifying such Protected Trees. The Reviewing Agent shall confirm that the applicant installed the required Tree Save Area as identified in a Tree Protection and Mitigation Plan before work on the property begins.

4.1 Protected Tree Impact and Removal Permit

The applicant must obtain a Protected Tree Impact and Removal Permit (“Tree Permit”) and pay the required fee to the Town of Brookline before removing any Protected Trees. Tree Permit applications must include a Tree Protection and Mitigation Plan. The Town may not issue a Building Permit without a review and sign-off of such plan from the Reviewing Agent.

REVIEW OF PERMIT APPLICATIONS: The Town’s Reviewing Agent shall review Tree Permit applications in accordance with the provisions of the Tree By-Law and these Rules and Regulations. The Reviewing Agent shall record the filing date of each application and complete the review no later than thirty (30) business days after submission of a complete application.

PERMIT ISSUANCE: After the Reviewing Agent issues the Tree Permit, the applicant must provide written notice to the Reviewing Agent confirming that the applicant installed any Tree Save Areas consistently with the approved plans. Once the Town issues the Tree Permit, the applicant may download the building permit application.

SITE INSPECTION: The Reviewing Agent shall inspect any Tree Save Area fencing and other tree preservation measures shown on the Approved Tree Protection and Mitigation Plan at any frequency that the Reviewing Agent deems necessary to ensure compliance.

4.2 Tree Protection and Mitigation Plan

The Tree Protection and Mitigation Plan may be part of a landscape plan, or a separate document that shows the location and size of Protected Trees on the property as well as any proposed mitigation trees.

A Qualified Professional, such as a Registered Land Surveyor, a Certified Arborist, licensed Architect or Landscape Architect/Planner, must prepare this Plan. It shall include the professional’s stamp (if applicable), professional certification number, date and signature of all such professionals involved in the plan’s preparation.

The Qualified Professional shall draw all plans to a uniform scale, preferably, 1” = 20’ or 1” = 4’. The minimum size of the plan shall be 11” x 17” (preferred) and a maximum size of 24” x 36”, with ¾” borders. Letter sizes on plans shall be no smaller than 1/8.” Applicants shall submit plans electronically.

The plan must include the following elements:

- Baseline Property Information and Protected Tree Inventory, including, without limitation, lot size, locus map, property owner's name, telephone number and email address;
- Boundaries of the property, including all property lines, easements, and public and private rights-of-way, which may include previous surveys or GIS parcel data combined with a deed demonstrating there are no easements or rights-of-way;
- The location of the Tree Yard within the property;
- The approximate location of pertinent existing buildings, driveways, retaining walls and other improvements, and the features to be retained, removed, or demolished;
- The location of all planned buildings, driveways, retaining walls, and other improvements;
- Proposed changes in grade;
- Proposed construction lay-down areas or construction equipment routes;
- An inventory of all existing Protected Trees and all Protected Trees that any owner, applicant, or predecessors-in-interest removed within the twelve (12) months prior to application. The plan must note such Protected Tree locations graphically on the plan, and provide a key to the species of individual trees and any prior or planned removals.
- In addition, a table (see example in Appendix A) must be provided that indicates:
 - The approximate location, DBH, tree canopy, and species of all existing Protected Trees within fifty (50) feet of the limit of work, as well as any other trees on the lot that are to be removed, or any Protected Trees that were removed within the twelve (12) months prior to the proposed construction. The limit of work and a fifty (50) foot-offset of such limit of work shall both be shown on the plan.
 - The disposition of each Protected Tree, whether the tree has been or will be removed, or retained and protected.
 - Any Protected Tree that should be considered exempt from mitigation requirements. Reasons for exemption may include any one or more of the following: the tree interferes with existing structures, utilities, streets, sidewalks or other existing improvements, which interference, in the professional opinion of the Qualified Professional, can only be corrected by removal. Alternatively, because the tree is dead, hazardous, or infested with a disease or pest which is likely to compromise the tree to such an extent it is deemed hazardous or there is a substantial risk of the pest or disease impacting the surrounding trees. In any of these cases, the Qualified Professional must provide a written explanation of the exemption, along with photographs, and a description of the condition of the affected tree(s).

PLAN ACCURACY: A Registered Land Surveyor must survey Plans that include proposed structures or additions that are beyond existing structure boundaries or Protected Trees. For projects without a Registered Land Surveyor plans may approximate the locations of items with three tie lines from existing structures if deemed satisfactory by the Reviewing Agent.

ADDITIONAL MATERIALS: The Reviewing Agent may request the applicant to submit a Registered Land Survey, additional materials, or explanation for consideration before issuing a permit.

REVISIONS TO THE PLAN DURING CONSTRUCTION: If it becomes necessary during construction to remove Protected Trees marked for Retention and Protection on the approved plan, the applicant must submit written documentation before doing so. The applicant shall submit a revised Tree Protection and Mitigation Plan to the Reviewing Agent and a narrative describing why the removal of the Protected Trees is necessary. The revised plan shall indicate any additional removals and associated mitigation measures

proposed. The Reviewing Agent must review any revisions and issue a written approval before the owner or applicant can undertake any modifications to the original plan.

If the applicant wishes to propose additional new planting in lieu of approved contributions to the Tree Fund, the applicant may submit a revised Plan showing additional new planting and indicating the corresponding reduction in total contribution due to the Tree Fund. See section 5 below.

4.3 Absence of Protected Trees Affidavit

If the applicant proposes any demolition or construction activity covered by the Bylaw, and there are no trees meeting the provisions of Section 3 on the lot, nor have any such trees been removed from the lot within the past 12 months, the applicant must sign an affidavit attesting to this fact prior to the issue of Demolition or Building Permits. In this case, no application fee shall apply and the applicant will not be required to submit a Protected Tree Impact and Removal Permit or a Tree Protection and Mitigation Plan.

5. Tree Preservation and Mitigation Alternatives

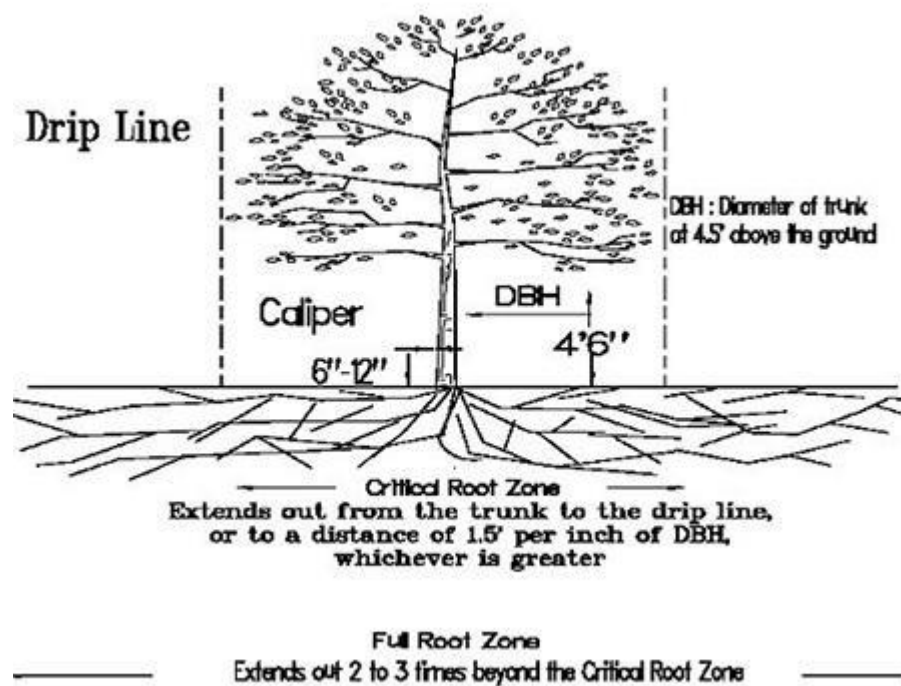
5.1 Tree Retention and Protection

If the applicant proposes to retain and protect one or more Protected Trees, the applicant will take the following accepted industry practices and standards specified in the plan to maintain the Protected Trees in good health for at least twenty-four (24) months from the date of Tree Permit Final Inspection. In this case, the applicant must indicate the following additional items on the plan and in the table:

TREE SAVE AREA: The plan must indicate the proposed Tree Save Area for all Protected Trees to be retained. The applicant shall base the Tree Save Area upon the minimum Critical Root Zone of each Protected Tree to be retained based on the following formula:

**Every 1 inch of Diameter at Breast Height (DBH) =
1 foot radius of Tree Save Area**

For example: For a Protected Tree with a DBH of 15 inches, the Tree Save Area would extend a minimum of 15 feet out from the trunk in all directions. The Tree Save Area should encompass the entire Critical Root Zone if possible.



TREE PROTECTION MEASURES: The Plan must provide a description of the tree protection measures to be installed. At a minimum, Tree Save Area fencing shall be 4' welded wire fence securely attached to driven metal stakes a maximum of 10' apart. Each fenced area shall include signs reading, "TREE SAVE AREA – KEEP OUT"/"AREA DE AHORRO DE ARBOLES – ENTRADA PROHIBIDA," in both English and Spanish spread no more than 30" apart.

PROHIBITED ACTIVITIES WITHIN THE TREE SAVE AREA: Within Tree Save Areas, applicants may not perform the following activities: passage and parking of vehicles; material laydown or storage; burning; washout from paint, concrete, or other substances; filling, excavation, grading, or trenching.

UTILITY TRENCHING: If the plan required utility trenching through the Tree Save Area, the table must note any special provisions for the completion of this work and the plan must indicate the location of trenching. The plan must limit access within the Tree Save Area to the minimum working area for the necessary machinery, and maintain that Tree Save Area prior to and immediately following completion of this work. The applicant shall backfill within 24 hours all excavations within the Tree Save Area. The Reviewing Agent and the applicant must review means and methods for any excavation within a Tree Save area and the Reviewing Agent must approve the means and methods prior to any excavation taking place. The Reviewing agent may require a Qualified Professional be onsite during excavation within the Tree Save Area.

In all cases, the applicant shall perform best Management Practices, including minimizing any use of trenching.

Applicants may not cut or damage tree roots by utility trenching, digging of foundations,

placing curbs and trenches, or other miscellaneous excavations without prior approval of the Reviewing Agent.

ALTERNATE TREE PROTECTION MEASURES: Where it is not possible to include the entire Critical Root Zone within the Tree Save Area, the applicant must specify in the table for each affected tree alternative protection, preservation, and maintenance measures. The Reviewing Agent must review and approve any alternate tree protection measures in writing prior to the start of the project.

5.2 Tree Removal and Mitigation by Replanting

The applicant shall provide the following plan elements and submittal requirements for any trees that the applicant proposed for planting to mitigate the removal of any Protected Trees, in addition to the requirements listed above. In this case, the Tree Table (see Appendix A) must include all new planting proposed as mitigation.

- DESCRIPTION: The location, caliper, and species of new trees to be planted to mitigate the removal of Protected Trees. One-half (0.5) inches of caliper of new trees is required to mitigate each DBH inch of Protected Trees removed.
- MINIMUM SIZE: Each new tree must have a minimum caliper of 3.5 inches.
- EVERGREENS: Evergreen Trees must be a minimum of 8 feet, measured in feet of height; i.e., 8 ft. tall, to count towards mitigation. Hedges shall not count toward mitigation totals. The height in feet of evergreen trees shall be multiplied by 0.25 to calculate the corresponding contribution value in caliper inches. For example, a 10-foot Spruce would count as a 2.5-inch caliper tree for mitigation purposes.
- MULTI-STEMMED TREES: Multi-stemmed trees must be a minimum of 8 feet, measured in feet of height; i.e., 8 ft. tall, to count towards mitigation. The height of multi-stemmed trees in feet shall be multiplied by 0.25 to calculate the corresponding contribution value in caliper inches. For example, a 12-foot multi-stemmed River Birch would count as a 3-inch caliper tree for mitigation purposes.
- USE OF ABUTTING PROPERTY: Planting on land abutting the applicant's land may take place with the express written approval of the abutter. The Tree Protection and Mitigation Plan shall show approximate locations on the adjacent property. The applicant must provide a signed acknowledgement by the abutting property owner of approval for such planting at the time of application.
- INVASIVE SPECIES: The applicant shall not replant any invasive tree species identified in the [Invasive Plant Atlas of New England](#), as most recently amended, as mitigation for the removal of a Protected Tree.
- OPTIONAL ADDITIONAL PLANTINGS: If the applicant proposed additional new planting beyond that required to mitigate for Protected Trees removed, the plan shall indicate required new trees versus those included as optional additional planting.
- TIMING: The applicant must complete replanting prior to Tree Permit Final Inspection or provide a Performance Guarantee for mitigation. (See Section 6.2 below.)
- MAINTENANCE REQUIREMENTS: The applicant must maintain in good health all new trees planted to satisfy mitigation requirements for a period of no less than twenty-four (24) months from the date of Tree Permit Final Inspection. Periods of unusual weather, including drought, shall not relieve this

obligation.

5.3 Tree Removal and Mitigation via Contribution to the Tree Fund

If the applicant chooses to contribute to the Town of Brookline Tree Preservation Fund to mitigate the removal of any Protected Trees, the Tree Table must indicate the aggregate DBH of Protected Trees removed and not otherwise mitigated, with the associated contribution based upon the most recently approved Contribution Rate Schedule.

5.4 Combination of Options

The applicant may use any combination of Tree Retention and Protection, Tree Replanting, or Tree Removal with Contribution to the Tree Fund. The applicant must identify on the submitted plan and in the table mitigation for those Protected Trees removed. The applicant must account for each DBH inch of Protected Trees removed and the mitigation proposed. This identification and accounting is not required for Tree Retention and Protection.

5.5 Conflict

Should any provision of these Rules and Regulations conflict with the Tree By-law, the Tree By-law shall prevail.

6. Administration and Penalties

6.1 Tree Permit Final Inspection

The applicant must complete all required tree plantings prior to the Reviewing Agent's final inspection and within ninety (90) days of the issuance of a certificate of occupancy. If the Tree Protection and Mitigation Plan includes any alternate tree preservation and maintenance measures required under Section 5, the applicant shall also submit a letter from the Qualified Professional verifying that they performed the required work. Provided that the applicant completed the required mitigation, the Reviewing Agent's sign-off on the Tree Permit Final Inspection will serve as verification that the applicant met the requirements of the By-Law.

6.2 Performance Guarantee Provisions

If weather conditions prevent the installation of replacement trees with ninety (90) days of issuance of a Certificate of Occupancy, the applicant may contact the Reviewing Agent at least 30 days prior to the Tree Permit Final Inspection to post a performance guarantee in an amount equal to mitigation via contribution to the Tree Fund. The Town will hold the performance guarantee for no longer than twelve (12) months. After twelve (12) months, if the specified replacement trees have not been installed, the performance guarantee shall be released to the Tree Fund as mitigation for any Protected Tree removals.

EXTENSION: The Reviewing Agent may extend the performance guarantee for no more than six (6) months from the original twelve- (12)-month period at their discretion.

COMPLETION: Once the planting is complete, the applicant may request a Tree Permit Final Inspection by the Reviewing Agent. Upon approval of all conditions, the Town will return performance guarantee within 30 days.

6.3 Suspension or Revocation

The Reviewing Agent or Commissioner of Public Works may suspend or revoke a Tree Permit at any time if the applicant fails to comply with either the Tree By-Law or the conditions of the permit. Notice of such suspension or revocation shall be made via certified or registered mail, return receipt requested, or by hand delivery to the applicant's address of record, and shall provide the applicant an opportunity to correct the non-compliance. This may include remediation or other requirements identified by the Reviewing Agent or Commissioner of Public Works. The applicant may apply for a renewal of the Tree Permit once the applicant returns the project to compliance or completes the required remediation, where practicable. If the Town suspended or revoked a Tree Permit, the Commissioner of Public Works may impose fines against the applicant until the noncompliance is corrected and the Town renewed or reinstated the Tree Permit.

6.4 Irreparable Damage

If the Reviewing Agent determines that the applicant damaged during construction a tree identified, approved, or both for Retention and Protection to an extent that may significantly compromise the tree's survival and future health, the applicant may owe mitigation per the terms of the By-Law.

6.5 Non-Criminal Fines

If the Reviewing Agent or Commissioner of Public Works identifies any issues of non-compliance, the applicant will accrue fines per the By-Law against the applicant, if the applicant fails to reach compliance within thirty (30) days. The Town will consider each consecutive day the non-compliance continues to be a separate offense.

Appendix A: Tree Inventory and Mitigation Table

Appendix A provides an example of a Protected Tree inventory table and proposed mitigation that combines proposed tree planting and contribution options to compensate for the removal of Protected Trees.

In this example, five Protected Trees exist on the property. The applicant chose to retain and protect three of the trees, and to replant four trees totaling 10.5 caliper inches. Since tree replanting is required at a rate of 0.5" for every DBH inch removed, the 10.5" of new trees accounts for 21 DBH inches of Protected Trees removed; therefore, the applicant would have 7 DBH inches remaining to compensate for, which was done through a contribution to the Tree Fund, totaling \$3,500.00.

PROTECTED TREE INVENTORY						
Site Key	DBH (inch)	Tree Species	Retained and Protected	Removed	DBH of Removed Trees	Comments
A	14"	Maple	X			Tree Save Area
B	24"	Red Oak	X			Rootpruning and tree well construction, see plan. Water weekly throughout construction.
C	18"	Red Oak		X	18"	
D	10"	Hawthorn		X	10"	
E	10"	Dogwood	X			Tree Save Area
					28"	TOTAL DBH Requiring Mitigation
PROPOSED TREE PLANTING						
Quality	Height (feet) ¹	Caliper (inch)	Tree Species	Aggregate Caliper (qty x cal)	Replacement Factor ² (x2)	
2	N/A	2.5"	Red Oak	5"		
1	N/A	3"	Sugar Maple	3"		
1	10'	2.5"	White Pine	2.5"		
Total Inches Proposed				10.5"	21"	Mitigation Offset from Proposed
<i>1) Height applies only to multi-stemmed and evergreen trees. Height in feet x 0.25 = equivalent caliper inch contribution.</i>						
<i>2) Bylaw requires .5" caliper replacement per 1" DBH removed.</i>						
TREE FUND CONTRIBUTION						
Total DBH Requiring Mitigation	minus (-)	Mitigation Offset from Proposed	equals (=)	Remaining DBH Requiring Mitigation	Tree Fund Contribution (\$500/in)	
28"		21"	7"		\$3,500	Mitigation Provided by Contribution to Tree Fund

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Appendix B: Contribution Rate Schedule

Per Section 5.3 and following a public hearing on [insert date], the Select Board voted to establish the following contribution rate schedule:

Contribution Rate Schedule	
Contribution per inch of DBH not otherwise mitigated	\$500.00 per inch

Example:

Total DBH to be removed and *not otherwise mitigated* = 10”: contribution of \$5,000 (10 X \$500)

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