



## DESIGN REVIEW BOARD

Meeting Minutes  
January 10, 2023  
7:00 PM  
Acton Town Hall  
Room 09 – In Person

**Present:** Peter Darlow, (Chair), Holly Ben-Joseph, Richard Keleher, Tom Doolittle

Public Attending: Terra Friedrichs

### 1. Opening

Chair, Peter Darlow opened the meeting at 7:35 p.m.

### 2. Regular Business

#### A. Meeting Minutes:

December 08 minutes were reviewed and unanimously approved. Holly will submit to the Town Clerk.

#### B. Citizen's Concerns: Terra F. offered several comments during the DRB discussion on Land Clearing and Tree Protection.

### 3. Special Business

#### A. Potential Land Clearing By-Law discussion:

Documents referred to while reviewing an initial draft summary discussion of potential Land Clearing By-laws:

- Ashland Site Alteration Special Permit.
- Model Land Clearing, Grading and Protection of Specimen Trees Bylaw from Cape Cod Commission Model Bylaws and Regulations.
- Draft summary for discussion of a potential Land Clearing By-Law

DRB members conclude that the topic of Land Clearing will be better managed with two sequential bylaw initiatives.

- A site alteration by-law to put in place a process to limit significant premature clearing of land prior to a formal review and approval of a development proposal by the appropriate town regulatory party(s)
- A by-law establishing guidelines for managing land clearing limits to be referenced during the review and approval process of a proposed development.



A review and discussion on the draft language and edits for each by-law proposal arrived at the following recommendations for a second summary draft.

- A. Summary document to highlight the salient points for discussion.
- B. Reasoning for the proposed by-law to be stated.
- C. Intended triggering event to be succinctly stated.
- D. Potential exempted property and events to be noted.
- E. Example priority by-law standards to be highlighted without specific details and values assigned.
- F. A reference document from a Massachusetts jurisdiction that can offer suitable by-law language to be cited.

B. Potential Tree Preservation By-Law discussion:

Documents referred to while reviewing an initial draft summary discussion of a potential Tree Preservation by-law.

- Town of Concord Tree Preservation By-Law.
- Draft summary for discussion of a potential Tree Preservation By-Law

A review and discussion on the draft language and edits for the tree preservation by-law proposal arrived at the following recommendations for a second summary draft.

- A. Summary document to highlight the salient points for discussion.
- B. Reasoning for the proposed by-law to be stated.
- C. Intended triggering event to be succinctly stated.
- D. Potential exempted property and events to be noted.
- E. Example priority by-law standards to be highlighted without specific details and values assigned.
- F. A reference document from a Massachusetts jurisdiction that can offer suitable by-law language to be cited.

Richard K will further edit and update the summary for the three proposed by-laws, Peter D will review and comment back to Richard. The three updated by-law summary discussions will be reviewed at the next DRB meeting.

#### **4. Adjournment**

At 9:30 p.m. it was moved and seconded to adjourn the meeting. The motion was approved unanimously.

Respectfully Submitted,  
The DRB

## **DRAFT - PROPOSED TREE POLICIES**

Design Review Board

Town of Acton

December 26, 2022, *Rev. December 29, 2022 in italics, Rev. January 7, 2023 in bold italics*

### **A. PURPOSES OF PROPOSED BYLAWS *DESCRIBED BELOW***

1. Preserve and protect the natural scenic beauty and related natural resources in the Town of Acton;
2. ***Manage*** land clearing and alteration of natural topography prior to site plan, preliminary plan, and/or definitive plan approval;
3. To promote and protect the public health, safety, and welfare through the preservation and protection of the environment and by recognizing the vital importance of tree and vegetation growth in the ecological system.
4. To protect, preserve, and promote the aesthetic appeal, character, and value of the surrounding neighborhoods; and,
5. To regulate prior to development plan approval, the removal of natural vegetation, especially major trees, and excavation and alteration of land, in order to minimize any danger of erosion, sedimentation, flooding, water pollution, unnecessary detraction from natural visual setting, obstruction of significant views, and other adverse impacts of development.

### **B. LAND CLEARING BYLAW *PHASE ONE – PRIOR APPROVAL BEFORE CLEARING***

1. Intent of by-law.....

The intent of this bylaw would be to build on the existing Town of Acton Earth Removal Bylaw to include requirements for obtaining prior approval before clearing a site.

2. Focus on.....

The focus would be to prevent situations such as the land clearing that occurred at the CVS site at 400 Massachusetts Avenue without ***an understood and accepted site development plan approval by the assigned statutory Town of Acton authority or regulatory board.***

3. Applicability (triggered by....) *I did not understand Peter's comment on this.*

This bylaw would be triggered by the necessary excavation and grading of ***a site (1) demolition of*** a building and appurtenant driveways for which a permit ***will be sought from*** the Select Board or other licensing body.

***As an example, no*** person shall undertake the following land clearing/grading activities without first obtaining a Site Alteration Special Permit from the Planning Board:

- a. Clearing of an area greater than 5,000 square feet; or, ***DRB to discuss #***

4. *Potential* Exemptions: The provisions of this bylaw shall not apply to the following activities:
  - a. Removal of hazardous trees;
  - b. Routine maintenance of vegetation and removal of dead or diseased limbs and/or trees necessary to maintain the health of cultivated plants, to contain noxious weeds and/or vines in accordance with Department of Environmental Management (DEM) approved Forest Management Plan, or to remedy a potential fire or health hazard or threat to public safety;
  - c. Maintenance of public and private streets and utilities within town-approved roadway layouts and easements;
  - d. Agricultural activities on land zoned for agriculture, work conducted in accordance with an approved Natural Resource Conservation Service Agricultural Plan or agricultural uses on parcels of land of more than five acres as specified in G.L. c. 40A, Section 3.
5. Based on bylaws in other towns....

This bylaw would be based largely on the Town of Ashland's Site Alteration Special Permit bylaw [Amended 5-5-2010 ATM, Art. 17; 5-7-2014 ATM, Art. 24].

6. Provisions kick in.... NOT SURE WHAT THIS WAS TO COVER
7. Record.... NOT SURE WHAT THIS WAS TO COVER
8. Address..... NOT SURE WHAT THIS WAS TO COVER

## *C. LAND CLEARING BYLAW PHASE TWO – LAND CLEARING BYLAW*

### *1. Intent of by-law....*

*The intent of this bylaw would be to manage clearing of properties. Growth and development have created permanent changes to the Town of Acton's landscape and its natural resources. Forested areas, open spaces, and other naturally vegetated areas have been permanently lost through clearing and grading activities often associated with land development. Clearing and grading activities also impact both water quality and quantity. Loss of ground cover coupled with grading, smoothing, and compaction of the land contributes to decreased groundwater infiltration, increased stormwater flow and erosion and increased sediment runoff into streams and other water bodies. This in turn results in decreased water quality in aquatic habitats and breeding grounds. Erosion and sedimentation often result in environmental damage to abutting properties.*

*In addition to the physical and ecological changes associated with grading and land clearing activities, aesthetic values and community character can also be impacted. Acton is defined in part by its mix of woodlands, open landscapes and scenic views.*

### *2. Focus on....*

*The focus would be to manage situations such as the land clearing that occurred at the CVS site at 400 Massachusetts Avenue.*

### *3. Applicability (triggered by....)*

*This bylaw would be triggered by the necessary excavation and grading of a site (1) demolition of a building and appurtenant driveways for which a permit will be sought from the Select Board or other licensing body.*

*As an example, no person shall undertake the following land clearing/grading activities without first obtaining a Site Alteration Special Permit from the Planning Board:*

- b. Clearing of an area greater than 5,000 square feet; or, DRB to discuss #*
- 4. *Potential Exemptions: The provisions of this bylaw shall not apply to the following activities:*
  - e. Removal of hazardous trees;*
  - f. Routine maintenance of vegetation and removal of dead or diseased limbs and/or trees necessary to maintain the health of cultivated plants, to contain noxious weeds and/or vines in accordance with Department of Environmental Management (DEM) approved Forest Management Plan, or to remedy a potential fire or health hazard or threat to public safety;*
  - g. Maintenance of public and private streets and utilities within town-approved roadway layouts and easements;*
  - h. Agricultural activities on land zoned for agriculture, work conducted in accordance with an approved Natural Resource Conservation Service Agricultural Plan or agricultural uses on parcels of land of more than five acres as specified in G.L. c. 40A, Section 3.*

- 5. *Based on bylaws in other towns....*

*This bylaw would be based largely on the Cape Cod Commission Model Bylaws and Regulations Model Land Clearing, Grading and Protection of Specimen Trees Bylaw as found at <http://www.capecodcommission.org/naturalresources/bylaws.htm> 11/17/2008.*

- 6. *Provisions kick in.... NOT SURE WHAT THIS WAS TO COVER*
- 7. *Record.... NOT SURE WHAT THIS WAS TO COVER*
- 8. *Address..... NOT SURE WHAT THIS WAS TO COVER*

#### D. YARD TREE BYLAW

- 1. *Intent of by-law.....*

The intent of this bylaw is to encourage the preservation and protection of trees *in setback areas and large heirloom trees in other areas of [DRB needs to agree on this]* residential lots during significant demolition and/or construction activity by (a) designating areas of a lot where trees must be protected, and (b) requiring mitigation for trees removed via replanting or collection of fees to support the Town's tree planting and maintenance efforts.

2. Focus on.....

The focus would be to ***manage and mitigate*** the removal of trees in front, side, and rear setback (per zoning bylaw) yards without prior approval by the Planning Board.

3. Applicability (triggered by).... ***Examples:***

Within the residential districts, it is prohibited to remove a protected tree during construction or within 12 months prior to 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 by 50% or greater, excluding basements, open or screened porches and decks.

4. ***Potential*** Exemptions:

- a. The subdivision of land under Town of Acton Subdivision Rules and Regulations;
- b. Those areas of property under the jurisdiction of the Wetlands Protection Act (Chapter 131 and 310 CMR);
- c. Public Shade Trees pursuant to M.G.L. Chapter 87;
- d. Emergency projects necessary for public safety, health and welfare, as determined by the Reviewing Agent [??????] or the Town Tree Warden;
- e. Trees ***that are diseased or*** severely damaged as the direct result of a natural disaster;
- f. Trees that are hazardous as determined and confirmed in writing by a Certified Arborist, and;
- g. Trees currently infected by a disease or insect infestation of a permanent [INCURABLE?] nature, as determined and confirmed in writing by a Certified Arborist.

5. Based on bylaws in other towns....

- a. This bylaw would be based largely on the Town of Concord's Tree Preservation Bylaw [Article 40, Town Meeting, April 2017].
- b. *Concord has processed the following number of permits under this bylaw: 2018: 11, 2019: 20, 2020: 30, 2021: 26, 2022: 26. Total: 113.*
- c. *They have apparently a draft of proposed changes. I have asked for a copy.*

6. Provisions kick in.... NOT SURE WHAT THIS WAS TO COVER

7. Record.... NOT SURE WHAT THIS WAS TO COVER

8. Address..... NOT SURE WHAT THIS WAS TO COVER

*FOR DISCUSSION BY DRB:*

**E. SUBDIVISION TREE BYLAW**

*The primary purpose of the Commonwealth's subdivision control law is regulating the design and construction of ways in subdivisions. There was concern that the scope not be extended beyond that. However, that does not preclude towns and cities from having separate bylaws requiring such things as tree preservation.*

*There are provisions regarding trees **ALREADY** in Acton's Subdivision Rules and Regulations (**THEY ARE JUST QUOTED HERE FOR REFERENCE**):*

1. *If the construction of the proposed sidewalks, STREETS, WAYS, etc. would involve the removal of a public shade tree or a scenic road stone wall, show their location, type, and size of the public shade tree on the definitive plan. In the case of a shade tree, contact the Tree Warden.*
2. **9.8 TREES and OTHER VEGETATION**

*9.8.1 Deciduous shade STREET trees shall be planted on LOTS approximately 10 feet from the STREET sideline where trees are lacking. Species and locations shall be subject to approval by the Acton Tree Warden. Trees shall be planted at not more than 50 foot intervals.*

*9.8.2 Trees shall be a minimum of ten (10) feet in height, with a caliper size of two (2) inches and shall be nursery grown stock.*

**THE POINT:** But these only deal with providing NEW trees (presumably after they have stripped the property of existing trees). And the quantity of trees required is negligible (see above).

**PETER ASKED IF I AM AWARE OF EXISTING SUBDIVISION CONTROLS IN OTHER COMMUNITIES LIMITING TREE REMOVAL, ASIDE FROM WETLANDS AND PCRC TYPES OF BYLAWS. ANSWER: NO. I HAVE TALKED TO DEAN CHARTER AND HAVE TRIED TO REACH ELIZABETH HUGHES IN CONCORD, BUT HAVE BEEN UNABLE TO REACH HER TO DATE. I ALSO REACHED OUT TO A GROUP CALLED TREES FOR PUBLIC GOOD (TPG) ABOUT THIS AND HEIRLOOM TREES. NO REPLIES YET...**

Town of Ashland, MA

**SITE ALTERATION SPECIAL PERMIT**

[Amended 5-5-2010 ATM, Art. 17; 5-7-2014 ATM, Art. 24]

**5.8.1**

**Intent and Purpose.** The intent of this section is to promote and protect the public health, safety, and welfare through the preservation and protection of the environment and by recognizing the vital importance of tree and vegetation growth in the ecological system. It is further the purpose of this section to:

**1.**

Preserve and protect the natural scenic beauty and related natural resources in the Town of Ashland;

**2.**

Limit land clearing and alteration of natural topography prior to site plan, preliminary plan, and/or definitive plan approval;

**3.**

To protect, preserve, and promote the aesthetic appeal, character, and value of the surrounding neighborhoods; and,

**4.**

To regulate prior to development plan approval, the removal of natural vegetation, especially major trees, and excavation and alteration of land, in order to minimize any danger of erosion, sedimentation, flooding, water pollution, unnecessary detraction from natural visual setting, obstruction of significant views, and other adverse impacts of development.

**5.8.2**

**Applicability.** No person shall undertake the following land clearing/grading activities without first obtaining a Site Alteration Special Permit from the Planning Board:

**1.**

Clearing of an area greater than 5,000 square feet; or,

**2.**

Grading if involving more than one hundred (100) cubic yards of earth.

**[5]**

*Editor's Note: Former Section 5.8.2, Definitions, was deleted 11-19-2013 STM, Art. 22, and the contents moved to Section 10.0, Definitions. Article 22 also renumbered former Sections 5.8.3 through 5.8.8 as Sections 5.8.2 through 5.8.7, respectively.*

**5.8.3**

**Exemption.** The provisions of this bylaw shall not apply to the following activities:

**1.**

Clearing of land zoned residential when such parcel is included in a submission for development to the Planning Board;

**2.**

Removal of hazardous trees;

**3.**

Routine maintenance of vegetation and removal of dead or diseased limbs and/or trees necessary to maintain the health of cultivated plants, to contain noxious weeds and/or vines in accordance with Department of Environmental Management (DEM) approved Forest Management Plan, or to remedy a potential fire or health hazard or threat to public safety;

**4.**

Maintenance of public and private streets and utilities within town-approved roadway layouts and easements;

**5.**

Agricultural activities on land zoned for agriculture, work conducted in accordance with an approved Natural Resource Conservation Service Agricultural Plan or agricultural uses on parcels of land of more than five acres as specified in G.L. c. 40A, Section 3.

**5.8.4**

Application. Any person seeking a Site Alteration Special Permit shall submit an application and plan including appropriate fees to the Planning Board which includes the following:

**1.**

Reason for site alteration;

**2.**

Photographs of the site of development taken from at least three significant public vantage points exterior to the project together with a map to indicate the location of points and approximate distance to the proposed development;

**3.**

The present location and size of all major trees and vegetation, with a designation of major trees and vegetation sought to be removed;

**4.**

The location, size and description of landscaping materials proposed to be placed on the lot in order to comply with a Landscape Plan;

**5.**

The location and boundaries of the lot and adjacent streets or ways and showing owners' names of all adjacent properties;

**6.**

Existing and proposed topography, including contours, the location of the wetlands, streams, water bodies, drainage swales, areas subject to flooding and unique natural land features;

**7.**

A timetable indicating estimate startup and completion dates; and,

**8.**

A written narrative indicating how runoff will be controlled and erosion avoided. Either a constructed surface or cover vegetation will be provided not later than the first full spring season

immediately following completion of the stripping operation. No stripped area or areas which are allowed by special permit shall remain through the winter without a temporary cover of winter rye or similar plant material being provided for soil control, except in the case of agricultural activity where such temporary cover would be infeasible.

**5.8.5**

Special Permit. Special Permits will be filed and reviewed in accordance to the time periods and provisions of M.G.L. Chapter 40A Section 11. The SPGA shall be the Planning Board for the purposes of this section.

[Amended 5-2-2018 ATM, Art. 19]

**5.8.6**

Other Permits. Issuance of a Site Alteration Special Permit does not exclude the applicant from applying for an Order of Conditions in Areas Subject to Protection under the Massachusetts Wetlands Protection Act. These areas include bank, bordering vegetated wetlands, riverfronts and the 25-foot and 100-foot buffer zones.

**5.8.7**

Priority Development Site(s). Where a Site Alteration Special Permit is required in connection with the development of a Priority Development Site (PDS), an application therefor shall be submitted simultaneously with any other permit application(s) required by the Code of the Town of Ashland, including these Zoning By-laws, relating to the use or development of the PDS or the buildings and/or structures located thereon, and not otherwise exempted by G.L. c. 43D, and a decision thereon shall be rendered no later than one hundred eighty (180) days from said date of submittal.

## Cape Cod Commission Model Bylaws and Regulations

# Model Land Clearing, Grading and Protection of Specimen Trees Bylaw

### Background

Growth and development have created permanent changes to the Cape Cod landscape and its natural resources. Forested areas, open spaces, and other naturally vegetated areas have been permanently lost through clearing and grading activities often associated with land development. Clearing and grading activities also impact both water quality and quantity. Loss of ground cover coupled with grading, smoothing, and compaction of the land contributes to decreased groundwater infiltration, increased stormwater flow and erosion and increased sediment runoff into streams and other water bodies. This in turn results in decreased water quality in aquatic habitats and breeding grounds. Erosion and sedimentation often results in environmental damage to abutting properties.

In addition to the physical and ecological changes associated with grading and land clearing activities, aesthetic values and community character can also be impacted. Cape Cod is defined in part by its mix of woodlands, open landscapes and scenic views. As noted in the Cape Cod Commission's "Designing the Future to Honor the Past," Cape Cod is a place of abundant nature, surrounded by and connected to the sea. Land clearing and grading activities can have a direct impact on the quality of the visual experience for both residents and tourists.

Local bylaws address the issues of clearing and grading to varying degrees, ranging from limits on clearing prior to the issuance of development permits to earthmoving regulations. However, most of the existing Cape bylaws do not address the issues of combined clearing and grading activities. In addition, while local Conservation Commissions require erosion and sediment control for projects within 100 feet of wetlands through the Wetlands Protection Act and local bylaws and regulations, they do not have authority beyond the 100 foot buffer until after an erosion problem has resulted in damage to wetlands and waterways.

Through a combination of Site Plan Review Standards and Special Permit requirements, this model bylaw seeks to minimize the loss of natural vegetation and topography and to protect specimen trees, significant forest types, and the most valuable wildlife habitat when developing a site. Minimizing the loss of natural vegetation provides for a cost-effective means of controlling erosion, flooding, and managing stormwater runoff from nonpoint sources such as development sites, streets and parking lots.

*Commentary:* Towns may choose between two different mechanisms for minimizing clearing and grading activities. One approach involves adopting these regulations into the zoning bylaw, requiring a special permit for clearing and grading of projects that exceed a certain size. In the alternative the town may adopt Site Plan Review standards that

apply to all projects requiring Site Plan approval. Where a Special Permit is required the reviewing board has authority to approve or deny a proposed use. Site Plan Review, on the other hand, simply stipulates the conditions applicable to a given use.

**01.0 Purposes:** The purposes of this bylaw are to:

- 01.1 Protect the health, safety and property of the residents of the Town of \_\_\_\_\_ by regulating clearing and grading activities associated with land development and preserving existing trees and vegetation, preventing erosion and sedimentation of inland and coastal wetlands, ponds and other waterbodies, controlling stormwater runoff, minimizing fragmentation of wildlife habitat and loss of vegetation;
- 01.2 Limit land clearing and alteration of natural topography prior to development review;
- 01.3 Protect specimen trees and significant forest communities from damage or removal during site development;
- 01.4 Protect water quality of adjacent wetlands and surface water bodies;
- 01.5 Encourage the use of Best Management Practices that prevent and reduce nonpoint sources of pollutants;
- 01.6 Promote land development and site planning practices that are responsive to the town's scenic character without preventing the reasonable development of land;
- 01.7 Protect archaeological and/or historic resources.

**02.0 Definitions:** In this bylaw, the following words have the meanings indicated:

- 02.1 **Applicant** - Any person proposing to engage in or engaged in any non-exempt clearing of trees or understory vegetation within the Town.
- 02.2 **Best Management Practices (BMPs)** - A structural, nonstructural, or managerial technique recognized to be the most effective and practical means to prevent and reduce nonpoint source pollutants. BMPs should be compatible with the productive use of the resource to which they are applied, and should be cost-effective.
- 02.3 **Caliper** - American Association of Nurserymen standard for measurement of trunk size of nursery stock. Caliper of the trunk shall be taken 6" above the ground up to and including 4" caliper trees, and 12" above the ground for larger sizes.
- 02.4 **Certified arborist** - A professional who possesses the technical competence through experience and related training to provide for or supervise the maintenance of trees and other woody plants in the residential, commercial, and public landscape.

02.5 Clearing - Removal or causing to be removed, through either direct or indirect actions, trees, shrubs and/or topsoil from a site, or any material change in the use or appearance of the land. Actions considered to be clearing include, but are not limited to: causing irreversible damage to roots or trunks; destroying the structural integrity of vegetation; and/or any filling, excavation, grading, or trenching in the root area of a tree which has the potential to cause irreversible damage.

02.6 Dripline - An area encircling the base of a tree which is delineated by a vertical line extending from the outer limit of a tree's branch tips down to the ground.

02.7 Essential Root Zone - An area located on the ground between the tree trunk and 10 feet beyond the dripline of a tree which is required for protection of a tree's root system.

02.8 Diameter/diameter-breast-height (dbh) - The diameter of any tree trunk, measured at 4.5 feet above existing grade.

02.9 Filling - The act of transporting or placing (by any manner or mechanism) material from, to, or on any soil surface or natural vegetation.

02.10 Grading - Any excavating, filling, clearing, or the creation of impervious surface, or any combination thereof, which alters the existing surface of the land.

02.11 Hazardous tree - A tree with a structural defect or disease, or which impedes safe sight distance or traffic flow, or otherwise currently poses a threat to life or property.

02.12 Landscape architect - A person licensed by the Commonwealth of Massachusetts to engage in the practice of landscape architecture.

02.13 Protected tree/vegetation - A tree or area of understory vegetation identified on an approved landscape plan to be retained and protected during construction.

02.14 Specimen tree - A native, introduced or naturalized tree which is important because of its impact on community character, its significance in the historic/cultural landscape or its value in enhancing the effects of wildlife habitat. Any tree with a dbh of 6" or larger is eligible to be considered a specimen tree. Trees that have a small height at maturity or are slow growing, such as flowering dogwood or american holly with a dbh of 4" or larger are eligible to be considered specimen trees.

02.15 Significant forest community - Unfragmented forests including forest types that provide habitat for rare species, unusual ecological processes, highly diverse forest communities, rare forest types, and those

forest types which maintain connections between similar or different habitat patches.

02.16 Site Alteration Special Permit - A special permit issued by the Planning Board authorizing land clearing and grading activities in the town of \_\_\_\_\_.

02.17 Understory vegetation - Small trees, shrubs, and groundcover plants, growing beneath and shaded by the canopy of trees.

**03.0 Applicability:** No person shall undertake land clearing/grading activities of an area greater than 40,000 square feet without first obtaining a Site Alteration Special Permit from the Planning Board, unless specifically exempted under Section 05.0 of this bylaw.

*Commentary:* The Cape Cod Commission has proposed this threshold for review, however, towns may wish to adopt a higher or lower threshold depending on their particular circumstances.

**04.0 Review and Decision:** Upon receipt of a completed application and required plans as described in Section 06.0 below, the Planning Board shall transmit one copy each to the Conservation Commission, Building Inspector, and Department of Public Works. Within 45 days of receipt of completed application/plans, these agencies shall submit recommendations to the Planning Board. The Planning Board shall act on applications according to the procedure specified in G.L. c. 40A, §9.

**05.0 Exemptions:** The provisions of this bylaw shall not apply to the following activities:

05.1 Removal of hazardous trees, as defined herein;

05.2 Routine maintenance of vegetation and removal of dead or diseased limbs and/or trees necessary to maintain the health of cultivated plants, to contain noxious weeds and/or vines in accordance with a Department of Environmental Management (DEM) - approved Forest Management Plan, or to remedy a potential fire or health hazard or threat to public safety;

05.3 Construction and maintenance of public and private streets and utilities within town-approved roadway layouts and easements;

05.4 Work conducted in accordance with a valid earth removal permit issued by the Town of \_\_\_\_\_;

05.5 Agricultural activities in existence at the time a bylaw is adopted, work conducted in accordance with an approved Natural Resource Conservation Service Agricultural Plan or agricultural uses on parcels of land of more than five acres as specified in MGL c. 40A Section 3.

05.6 Construction of roadways and associated infrastructure for subdivisions approved in accordance with the Town Subdivision Rules and Regulations.

05.7 Construction of any state or town agency project approved by the town manager, town council, or town selectmen.

05.8 Construction or installation of public utilities.

05.9 Non-commercial cutting for fuel, provided that clear-cutting does not occur.

**06.0 Application Requirements:** Unless determined otherwise by the Planning Board the following submittals are required at the time of application:

06.1 Survey of existing vegetation conducted by an individual qualified through appropriate academic credentials and field experience. A statement of credentials should be submitted with the survey.

The survey of existing vegetation shall include the following information:

06.1.1 major upland vegetational communities located on the site, including trees, shrub layer, ground cover and herbaceous vegetation;

06.1.2 size and height of trees, noting specimen trees and/or forest communities;

06.1.3 location of any rare and endangered species as mapped by the Massachusetts Natural Heritage Program or Association for the Preservation of Cape Cod;

06.2 Submission of a locus map at a scale of 1" = 500' showing the proposed site in relation to the surrounding area.

06.3 Submission of a plan at a scale of 1" = 40' of the project site showing existing and proposed contour lines at intervals of not more than 2 feet prepared by a registered civil engineer or land surveyor.

06.4 Soil survey or soil logs indicating predominant soil types on the project site, including information on erosion potential from the Natural Resources Conservation Service.

06.5 Delineation of all bodies of water, including wetlands, vernal pools, streams, ponds, and coastal waters within 100 feet of the project site/limit of work and delineation of the 100-year floodplain.

06.6 Submission of a plan at a scale of 1" = 40' indicating the limit of work. The limit of work shall include all building, parking, and vehicular use areas, and any grading associated with the proposed development. The plan or accompanying narrative shall document the species and quantities of specimen trees and/or other vegetation to be removed or relocated within the project area.

06.7 Construction schedule which describes the timing of vegetation removal, transplanting or replacement in relation to other construction activities.

06.8 Plans and/or description of Best Management Practices to be employed in development of the project site.

06.9 Submission of an erosion and sedimentation control plan at a scale of 1" = 40'. This plan shall include BMPs for erosion and sediment control (vegetative and/or structural) to prevent surface water from eroding cut and fill side slopes, road shoulders and other areas and measures to avoid sedimentation of nearby wetlands and ponds. The following information shall be submitted on erosion control and sedimentation plans submitted with the project application:

06.9.1 Plans and details of any sediment and erosion control structure drawn at a scale of 1" = 40', details @  
\_\_\_\_\_ scale

06.9.2 Spillway designs showing calculations and profiles

06.9.3 Notes and construction specifications

06.9.4 Type of sediment trap

06.9.5 Drainage area to any sediment trap

06.9.6 Volume of storage required

06.9.7 Outlet length or pipe sizes

06.9.8 A description of the sequence of construction activities which specifies the time frame for soil stabilization and completion and any necessary winter

stabilization measures.

*Commentary:* Some of the application submittals may require the review of the town engineer or a landscape architect. The town may retain a technical expert to review the application at the expense of the applicant. The town must first adopt the provisions of Chapter 593 of the Acts and Resolves of 1989, which allows towns to establish special accounts to hire consultants. If the Planning Board wishes to use developer funds for review of special permits, it must adopt regulations specifying a procedure for the submission and expenditure of such funds. Such rules and regulations must be adopted under G.L. c. 40A.

## **07.0 Review Standards:**

*Commentary:* The following section contains standards that could be added to existing Site Plan Review Bylaws, independent of this bylaw. However, and as previously discussed, towns may also wish to adopt these standards only for larger projects, as defined by a size threshold.

The applicant shall demonstrate that the following measures are employed in development of the site:

07.1 Minimize site alteration/land clearing:

07.1.1 Site/building design shall preserve natural topography outside of the development footprint to reduce unnecessary land disturbance and to preserve natural drainage channels on the site.

07.1.2 Clearing of vegetation and alteration of topography shall be limited to \_\_\_\_\_ % of the site with native vegetation planted in disturbed areas as needed to enhance or restore wildlife habitat.

<b>Land Use</b>	<b>% Clearing Allowed</b>
Agriculture	50%
Residential	35%
Institutional, Commercial, Industrial	40%

*Commentary:* The percentages for land clearing within specific land use types, and even the types themselves may need to be adjusted according to the constraints and land use patterns of the town, and relative to lot size. An alternate method could employ the Significant Natural Resource Area Map of the 1996 Regional Policy Plan as a way of identifying clearing limits. For example, projects within a Significant Natural Resource Area (SNRA) may only clear 35% of the site; land outside of SNRAs may clear up to 50%, and areas both outside of SNRAs and in certified growth centers may clear up to 60%. These percentages could be further fine tuned within the Town's zoning bylaw/ordinance. For example, the town may wish to limit clearing within residential districts more strictly than within non-residential districts.

07.1.3 Clearing for utility trenching shall be limited to the minimum area necessary to maneuver a backhoe or other construction equipment. Roots should be cut cleanly rather than pulled or ripped out during utility trenching. Tunneling for utilities installation should be utilized wherever feasible to protect root systems of trees.

07.1.4 Protect hilltops and/or scenic views within the town of \_\_\_\_\_:

07.1.4.1 Placement of buildings, structures, or parking facilities shall not detract from the site's scenic qualities and shall blend with the natural landscape. Building sites shall be directed away from the crest of hills, and foundations shall be constructed to reflect the natural terrain.

07.1.5 Protect wildlife habitat:

07.1.5.1 Sites shall be designed in such a way as to avoid impacts to rare and endangered species and wildlife habitat on a site, and to maintain contiguous forested areas.

07.1.6 Avoid impacts to archaeological resources:

07.1.6.1 Applicants shall submit a response from the Massachusetts Historical Commission (MHC) regarding the potential for archaeological or historical resources on the site.

07.1.7 Preserve open space and specimen trees on the site:

07.1.7.1 In the design of a development, priority shall be given to retention of existing stands of trees, trees at site perimeter, contiguous vegetation with adjacent sites (particularly existing sites protected through conservation restrictions), and specimen trees.

07.1.8 Understory vegetation beneath the dripline of preserved trees shall also be retained in an undisturbed state. During clearing and/or construction activities, all vegetation to be retained shall be surrounded by temporary protective fencing or other measures before any clearing or grading occurs, and maintained until all construction work is completed and the site is cleaned up. Barriers shall be large enough to encompass the essential root zone of all vegetation to be protected. All vegetation within the protective fencing shall be retained in an undisturbed state.

07.1.9 Forested areas shall be preserved if they are associated with:

- 07.1.9.1 significant forest communities as defined herein;
- 07.1.9.2 wetlands, waterbodies and their buffers;
- 07.1.9.3 critical wildlife habitat areas;
- 07.1.9.4 slopes over 25 percent.

07.1.10 Minimize cut and fill in site development:

07.1.10.1 Development envelopes for structures, driveways, wastewater disposal, lawn areas and utility work shall be designated to limit clearing and grading.

07.1.10.2 Other efforts to minimize the clearing and grading on a site associated with construction activities shall be employed, such as parking of construction vehicles, offices/trailers, stockpiling of equipment/materials, etc. in areas already planned for permanent structures. Topsoil shall not be stockpiled in areas of protected trees, wetlands, and/or their vegetated buffers.

07.1.10.3 Finished grades should be limited to no greater than a 2:1 slope, while preserving, matching, or blending with the natural contours and undulations of the land to the greatest extent possible.

07.1.10.4 Employ proper site management techniques during construction:

- (a) BMPs shall be employed to avoid detrimental impacts to existing vegetation, soil compaction, and damage to root systems.
- (b) The extent of a site exposed at any one time shall be limited through phasing of construction operations. Effective sequencing shall occur within the boundaries of natural drainage areas.

07.1.10.5 Protect the site during construction through adequate erosion and sedimentation controls:

- (a) Temporary or permanent diversions, berms, grassed waterways, special culverts, shoulder dikes or such other mechanical measures as are necessary may be required by the Board to intercept and divert surface water runoff. Runoff flow shall not be routed through areas of protected vegetation or revegetated slopes and other areas. Temporary runoff from erosion and sedimentation controls shall be directed to BMPs such as vegetated swales. Retaining walls may be required where side slopes are steeper than a ratio of 2:1.
- (b) Erosion and sedimentation controls shall be constructed in accordance with the DEP Stormwater Guidance manual.
- (c) Erosion control measures shall include the use of erosion control matting, mulches and/or temporary or permanent cover crops. Mulch areas damaged from heavy rainfalls, severe storms and construction activity shall be repaired immediately.
- (d) Erosion control matting or mulch shall be anchored where plantings are on areas subject to mulch removal by wind or water flows or where side slopes are steeper than 2:1 or exceed 10 feet in height. During the months of October through March when

seeding and sodding may be impractical, anchored mulch may be applied at the Board's discretion.

(e) Runoff from impervious surfaces shall be recharged on the site by stormwater infiltration basins, vegetated swales, constructed wetlands or similar systems covered with natural vegetation. Runoff shall not be discharged directly to rivers, streams, or other surface water bodies. Dry wells shall be used only where other methods are not feasible. All such basins and wells shall be preceded by oil, grease, and sediment traps. The mouths of all catch basins shall be fitted with filter fabric during the entire construction process to minimize siltation or such basins shall be designed as temporary siltation basins with provisions made for final cleaning.

(f) The applicant shall be required to conduct weekly inspections of all erosion and sedimentation control measures on the site to ensure that they are properly functioning as well as to conduct inspections after severe storm events.

#### 07.1.10.6 Revegetate the site immediately after grading:

(a) Proper revegetation techniques shall be employed using native plant species, proper seed bed preparation, fertilizer and mulching to protect germinating plants. Revegetation shall occur on cleared sites within 7 (seven) calendar days of final grading and shall occur during the planting season appropriate to the selected plant species.

(b) A minimum of 4" of topsoil shall be placed on all disturbed surfaces which are proposed to be planted.

(c) Finished grade shall be no higher than the trunk flare(s) of trees to be retained. If a grade change of 6" or more at the base of the tree is proposed, a retaining wall or tree well may be required.

**08.0 Required Security:** The Planning Board may require a performance guarantee in a form acceptable to the town to cover the costs associated with compliance with this bylaw under a Site Alteration Special Permit.

08.1 The required performance guarantee in the amount of 150% of the cost of site restoration shall be posted prior to the issuance of a Site Alteration Special Permit for the proposed project.

08.2 The performance guarantee shall be held for the duration of any prescribed maintenance period required by the Site Plan Review Committee/Planning Board to ensure establishment and rooting of all new plantings, and may be reduced from time to time to reflect completed work. Plantings which die within the prescribed maintenance period shall be replaced. Securities shall not be fully released without a final inspection and approval of vegetation replacement by the town.

## **09.0 Monitoring and Inspections:**

09.1 Prior to commencement of construction, the applicant, land owner, contractor and construction crew, town engineer or zoning enforcement officer, and site engineer shall conduct a meeting to review the proposed construction phasing and number and timing of site inspections.

*Commentary:* Towns should decide what official is appropriate to review clearing and grading proposals, and require that official to report to the Planning Board.

09.2 Initial site inspection of erosion and sedimentation controls and placement of tree protection measures shall occur after installation of barriers around preserved areas and construction of all structural erosion and sedimentation controls, but before any clearing or grading has begun.

09.3 Routine inspections of preserved areas and erosion and sedimentation controls shall be made at varying intervals depending on the extent of site alteration and the frequency and intensity of rainfall.

09.4 Effective stabilization of revegetated areas must be approved by the town before erosion and sedimentation controls are removed. The town shall complete an inspection prior to removal of temporary erosion and sedimentation controls.

**10.0 Enforcement:** The town of \_\_\_\_\_ may take any or all of the enforcement actions prescribed in this bylaw to ensure compliance with, and/or remedy a violation of this bylaw; and/or when immediate danger exists to the public or adjacent property, as determined by the \_\_\_\_\_ Building Inspector. Securities described in Section 07.0 above may be used by the town in carrying out any necessary enforcement actions.

10.1 The \_\_\_\_\_ Building Inspector may post the site with a Stop Work order directing that all vegetation clearing not authorized under a Site

Alteration Permit cease immediately. The issuance of a Stop Work order may include remediation or other requirements which must be met before clearing activities may resume.

10.2 The Town may, after written notice is provided to the applicant, or after the site has been posted with a Stop Work order, suspend or revoke any Site Alteration Special Permit issued by the Town.

10.3 No person shall continue clearing in an area covered by a Stop Work order, or during the suspension or revocation of a Site Alteration Special Permit except work required to correct an imminent safety hazard as prescribed by the Town.

#### **0.11 Severability:**

0.11.1 If any provision of this bylaw is held invalid by a court of competent jurisdiction, the remainder of the bylaw shall not be affected thereby. The invalidity of any section or sections or parts of any section or sections of this bylaw shall not affect the validity of the remainder of the [town]'s zoning bylaw.

*Commentary:* This Section is a generic severability clause. Severability clauses are intended to allow a court to strike or delete portions of a regulation that it determines to violate state or federal law. In addition, the severability clause provides limited insurance that a court will not strike down the entire bylaw should it find one or two offending sections.

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## **TOWN OF CONCORD**

### **TREE PRESERVATION BYLAW**

### **RULES AND REGULATIONS**

January 9, 2018

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## 1. Purpose

The Town of Concord Tree Preservation Bylaw, approved at the 2017 Town Meeting, encourages the preservation and protection of trees on residential lots during significant demolition and construction activity. It designates areas of a lot where trees must be protected, and requires property owners to compensate for any Protected Trees that are removed, either by planting new ones or by contributing to a fund that supports the Town's tree planting and maintenance efforts.

This document lays out the rules and regulations that Concord's Building Inspections Division and Reviewing Agent will use to administer the bylaw, including:

- The criteria that determine when a project is subject to the Bylaw
- 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
- What to do if a property does not have any Protected Trees
- How to complete the mitigation process
- How to make changes when needed
- Enforcement procedures

If any requirement of these Rules and Regulations conflicts with a provision of the Concord Zoning Bylaw (ZBL), the latter shall govern.

## 2. When does the Tree Preservation Bylaw Apply?

A project is subject to the Tree Preservation Bylaw if **all** of the following statements are true:

1. The lot is located in a Residential Zoning District (AA, A, B, C)
2. The project involves any of the following:
  - Demolishing a structure with a footprint of 250 sq. ft. or greater<sup>1</sup>
  - Constructing a building or structure on a vacant lot
  - Constructing a structure or an addition that increases the Gross Floor Area<sup>2</sup> by 50% or more
3. There is at least one Protected Tree on the lot (*see Section 3. Identifying Protected Trees*)

**Protected Trees removed within the past 12 months prior to an application for any of the projects listed in #2 above are also subject to the requirements of the Tree Bylaw.**

If no Protected Trees have existed on the site within the past 12 months, the property owner must sign an Affidavit attesting to such, and no protection or mitigation will be required (see Section 4.3: Absence of Protected Tree Affidavit).

## 3. Identifying Protected Trees

The Bylaw defines the Tree Yard to be equal to the minimum front, side, and rear yard setbacks as specified in Table III and sections 6.2.6, 6.2.7 and 6.2.8 of the Town of Concord Zoning Bylaw. Any tree with a Diameter at Breast Height (DBH) of 6" or greater within the Tree Yard is considered to be a Protected Tree, unless it is an invasive species (as defined in the Bylaw).

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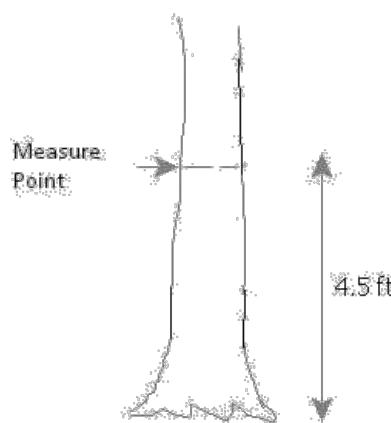
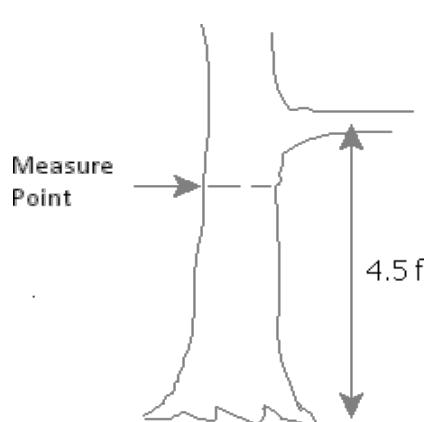
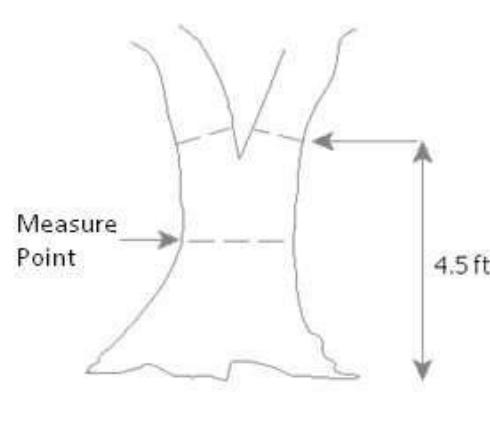
<sup>1</sup> Demolition and re-construction of a structure in the same footprint that does not require the removal of a protected tree shall not trigger this bylaw (e.g. re-constructing a deck)

<sup>2</sup> Gross Floor Area is defined by the Town of Concord Zoning Bylaw Section 1.3.12, excluding basements, open or screened porches and decks.

Use the following formula to determine the diameter:

Tree circumference at breast height  $\div \pi$  = diameter

Example: Tree circumference at breast height = 32"  $\div \pi$  (i.e., 3.1415932) = 10.18" DBH

<b>How to measure Diameter at Breast Height (DBH):</b>	
<p><b>Figure 1. Standard Tree</b></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>	 A line drawing of a standard tree trunk. A horizontal dashed line extends from the trunk to the right, with an arrow pointing to the text "Measure Point". A vertical dashed line extends downwards from the "Measure Point" to a horizontal line labeled "4.5 ft". The trunk is straight and tapers slightly towards the base.
<p><b>Figure 2. Tree has branches or swelling which interferes with DBH measurement at 4.5 ft</b></p> <p>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.</p>	 A line drawing of a tree trunk with a large, irregular swelling or branch on the right side. A horizontal dashed line with an arrow points to the text "Measure Point", which is located on the left side of the trunk, below the swelling. A vertical dashed line extends downwards from the "Measure Point" to a horizontal line labeled "4.5 ft".
<p><b>Figure 3. Multi-Stemmed Trees</b></p> <p>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]).</p>	 A line drawing of a tree trunk that splits into two separate trunks at a low point. A horizontal dashed line with an arrow points to the text "Measure Point", which is located on the left side of the trunk, below the point of split. A vertical dashed line extends downwards from the "Measure Point" to a horizontal line labeled "4.5 ft".

## 4. Submission Requirements

If the Bylaw applies to your project, you will need to obtain a Protected Tree Impact and Removal Permit and submit a Tree Protection and Mitigation Plan to the Reviewing Agent.

### 4.1. Protected Tree Impact and Removal Permit

You must submit a Protected Tree Impact and Removal Permit (Tree Permit) application and pay the associated fee to the Building Inspections Division before you apply for a Demolition Permit or Building Permit. It is strongly recommended that you submit the Tree Permit application prior to requesting other permits. You may not file a Building Permit application without a sign-off from the Reviewing Agent on the Building Inspections Division Building Permit Sign-off Sheet.

4.1.1. **REVIEW OF PERMIT APPLICATIONS:** The Town's designated Reviewing Agent reviews Protected Tree Impact and Removal Permit applications in accordance with the provisions of the Bylaw. The Reviewing Agent shall record the filing date of each application and complete the review no later than thirty (30) business days after you submit a complete application. If the Reviewing Agent fails to act within 30 days, work may proceed as outlined, but in no case shall that relieve you from the requirements of the Bylaw.

4.1.2. **PERMIT ISSUANCE:** After the Reviewing Agent issues the Tree Permit, you must provide written notice to the Reviewing Agent confirming that the Tree Save Area has been installed and is consistent with the approved plans.

4.1.3. **SITE INSPECTION:** The Reviewing Agent will inspect the Tree Save Area fencing and other tree preservation measures included on the Approved Tree Protection and Mitigation Plan at any frequency that he or she deems necessary to assure compliance.

### 4.2. Tree Protection and Mitigation Plan

You must submit a Tree Protection and Mitigation Plan to the Reviewing Agent along with your Protected Tree Impact and Removal Permit application. This plan may be part of a landscape plan, or a separate document that shows the location and size of Protected Trees on the property.

Your Tree Protection and Mitigation Plan must be prepared by qualified professionals (a Registered Land Surveyor together with a Certified Arborist or a Registered Landscape Architect), and include the stamp (if applicable), professional certification number, date and signature of all professionals involved in its preparation.<sup>3</sup>

All plans must be drawn to a uniform scale (preferably 1" = 10', 1" = 20', or 1" = 30'). All plans shall be a minimum size of 11" x 17" (preferred) and a maximum size of 24" x 36", with  $\frac{3}{4}$ " borders. Letter sizes on plans should be no smaller than 1/8."

Your plan needs to include the following elements:

4.2.1. **BASELINE PROPERTY INFORMATION AND PROTECTED TREE INVENTORY**

4.2.1.1. Boundaries of the property, including all property lines, easements, and public and private rights-of-way.

4.2.1.2. The property's Zoning District designation and the location of applicable zoning setbacks per ZBL Table III (or Section 6.2.7 of the Bylaw, when applicable).

4.2.1.3. The location of all existing buildings, driveways, retaining walls and other improvements, and the features to be retained, removed or demolished.

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<sup>3</sup> If your plan designates all Protected Trees for removal, an Arborist or Landscape Architect does not need to be involved.

- 4.2.1.4. The location of all planned buildings, driveways, retaining walls and other improvements.
- 4.2.1.5. Proposed changes in grade.
- 4.2.1.6. An inventory of all Protected Trees and all Protected Trees that were removed within twelve (12) months prior to application. Your plan must note tree locations graphically on the plan, and provide a key to the species of individual trees and any prior or planned removals. In addition, you must provide a table (see the example in Appendix A) that indicates:
  - 4.2.1.6.1. The location, DBH, and species of all existing Protected Trees within 50 feet of the limit of work, as well as any other trees (both Protected Trees and any invasive species) on the lot that are to be removed. The limit of work and the 50 foot exclusion zone shall both be shown on the plan.
  - 4.2.1.6.2. The disposition of each Protected Tree (whether the tree will be removed or retained and protected)
  - 4.2.1.6.3. Any Protected Tree that should be considered exempt from mitigation requirements because it interferes with existing structures, utilities, streets, sidewalks or other existing improvements, and whose interference, in the arborist's professional opinion, can only be corrected by removal.  
(Photos and a description from a Certified Arborist must be provided in this case.)
  - 4.2.1.6.4. Any Protected Tree that may be exempt from mitigation requirements because it is dead, imminently hazardous, or infested with a disease or pest of a permanent nature. (A Certified Arborist's written confirmation must be provided in this case.)
- 4.2.2. ADDITIONAL MATERIALS: The Reviewing Agent may request that the applicant submit additional materials or explanation for consideration before issuing a permit.
- 4.2.3. REVISIONS TO THE PLAN DURING CONSTRUCTION: If it becomes necessary during the course of construction to remove Protected Trees marked for Retention and Protection on the approved plan, you may submit a revised Tree Protection & Mitigation Plan to the Reviewing Agent. The revised plan shall clearly indicate any additional removals, and associated additional mitigation measures proposed.
  - 4.2.3.1. If you want to propose additional new planting in lieu of approved contributions to the Tree Fund, you may submit a revised Plan showing additional new planting and indicating the corresponding reduction in total contribution due to the Tree Fund (see section 5.3 below).

### 4.3. Absence of Protected Trees Affidavit

If you propose any demolition or construction activity covered by the Bylaw, and there are not any trees meeting the provisions of Section 3, nor have any such trees been removed on your lot within the past 12 months, the property owner 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 you 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 you propose to retain and protect one or more Protected Trees, you must specify the

measures (following accepted industry practices and standards) that will be taken 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, you must indicate the following additional items on your plan and in the table.

5.1.1. TREE SAVE AREA: Indicate the proposed Tree Save Area for all Protected Trees to be retained. The Tree Save Area shall be based 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.

5.1.2. TREE PROTECTION MEASURES: 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 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.

5.1.3. PROHIBITED ACTIVITIES WITHIN THE TREE SAVE AREA: Within Tree Save Areas, the following activities are prohibited: passage and parking of vehicles; materials laydown or storage; burning; washout from paint, concrete, or other substances; filling, excavation, grading or trenching.

5.1.4. UTILITY TRENCHING: If utility trenching is required through the Tree Save Area, you must note any special provisions for the completion of this work in the table and indicate the location of trenching on the plan. Your 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. All excavations within the Tree Save Area shall be backfilled within 24 hours.

5.1.5. ALTERNATE TREE PROTECTION MEASURES: Where it is not possible to include the entire Critical Root Zone within the Tree Save Area, you must specify alternative protection, preservation, and maintenance measures in the table for each affected tree.

## 5.2. Tree Removal and Mitigation via Replanting

You must include the following plan elements and submittal requirements for any trees that you propose to plant 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.

5.2.1. DESCRIPTION: Indicate 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 needed to mitigate 1 DBH inch of Protected Trees removed.

5.2.2. MINIMUM SIZE: Each new tree must have a minimum caliper of 2 inches.

5.2.3. EVERGREENS: Evergreen Trees (measured in feet of height; i.e., 8 ft. high or tall) must be a minimum of 8 feet to count towards mitigation. Hedges DO NOT COUNT towards mitigation totals. The height of evergreen trees in feet 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.

5.2.4. MULTI-STEMMED TREES: Multi-stemmed trees (measured in feet of height; i.e., 10 ft. high or tall) must be a minimum of 8 feet 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.

- 5.2.5. USE OF ABUTTING PROPERTY: You may plant on land abutting your land, with the express written approval of the abutting property owner. Approximate locations on the adjacent property shall be shown on the Tree Protection & Mitigation Plan. You must provide a signed acknowledgement by the abutting property owner of approval for such planting at the time of application.
- 5.2.6. INVASIVE SPECIES: Invasive tree species identified in the Tree Preservation Bylaw shall not be replanted as mitigation for the removal of a Protected Tree.
- 5.2.7. OPTIONAL ADDITIONAL PLANTINGS: If additional new planting is proposed beyond that required to mitigate for Protected Trees removed, the plan shall indicate required new trees versus those included as optional additional planting.
- 5.2.8. TIMING: You must complete replanting prior to Tree Permit Final Inspection or provide a Performance Guarantee for mitigation. (See Section 6.2 below.)
- 5.2.9. MAINTENANCE REQUIREMENTS: All new trees planted to satisfy mitigation requirements must be maintained in good health 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 you choose to contribute to the Town of Concord Tree Preservation Fund to mitigate the removal of any Protected Trees, your Tree Table must indicate the aggregate DBH of Protected Trees removed and not otherwise mitigated, with the associated contribution based upon the most recent Contribution Rate Schedule.

### 5.4. Combination of Options

You can use any combination of Tree Retention and Protection, Tree Replanting, or Tree Removal with Contribution to the Tree Fund. You must clearly identify mitigation for those Protected Trees removed on the submitted Tree Protection & Mitigation Plan and in the table accounting for each DBH inch of Protected Trees removed and the mitigation proposed. This is not required for Tree Retention and Protection.

## 6. Administration and Penalties

### 6.1. Tree Permit Final Inspection

You must complete all required tree plantings prior to the Reviewing Agent's final inspection and within 90 days of the issuance of a certificate of occupancy. If your Tree Protection & Mitigation Plan included any alternate tree preservation and maintenance measures required under Section 5.1.2, you must also submit a letter from the Certified Arborist verifying that they have been performed. Provided that you have completed the required mitigation, the Reviewing Agent's sign-off on the Tree Permit Final Inspection will serve as verification that you have met the requirements of the Tree Preservation Bylaw.

### 6.2. Performance Guarantee Provisions

If weather conditions prevent the installation of replacement trees with 90 days of issuance of a Certificate of Occupancy, you may contact the Building Inspections Division 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 12 months. After 12 months, if you have not installed the specified replacement trees, the performance guarantee shall be released to the Tree Fund as

mitigation for the Protected Tree removal(s).

- 6.2.1. EXTENSION: The Building Inspections Division may extend the performance guarantee for no more than 6 months from the original 12 month period at their discretion.
- 6.2.2. COMPLETION: Once the planting is complete, you may request a Tree Permit Final Inspection by the Reviewing Agent. Upon approval of all conditions, the performance guarantee will be returned to you within 30 days.

### 6.3. Reimbursement of Tree Preservation Funds

In some cases, you may decide to contribute to the Tree Fund pursuant to Section 5.3 at the start of your project, but find at the end of construction, the planting of additional trees is preferable.

- 6.3.1. PROCEDURE: Prior to the issuance of a Tree Permit Final Inspection for a project subject to the Tree Preservation Bylaw, you may propose a revised Tree Protection & Mitigation Plan that shows a corresponding number of additional new plantings, and request that contributions made to the Tree Fund pursuant to Section 5.3 be reimbursed.
- 6.3.2. LIMITATIONS: Once a Tree Permit Final Inspection has been completed for a triggering project, no further reimbursement will be allowed.

### 6.4. Suspension or Revocation

The Reviewing Agent may suspend or revoke your Tree Permit at any time if you fail to comply with either the Bylaw or the conditions of the permit. Notice may be made via certified or registered mail, return receipt requested, or hand delivered. It must provide you an opportunity to correct the non-compliance. This may include remediation or other requirements identified by the Reviewing Agent. You may apply for a renewal of the Tree Permit once the project is returned to compliance or remediation completed, where practicable. Note that if your Tree Permit is suspended or revoked, the Building Inspections Division may issue fines until you correct the noncompliance and your Tree Permit has been renewed or reinstated.

### 6.5. Irreparable Damage

If the Reviewing Agent determines that you damaged a tree approved for Retention and Protection during construction to an extent that may significantly compromise its survival and future health, he or she may require that you provide mitigation per the terms of the Bylaw.

### 6.6. Non-Criminal Fines

If the Reviewing Agent or Building Inspector identifies any issues of non-compliance, you will accrue fines per the Bylaw if you do not correct them within 30 days. Each consecutive day the non-compliance continues is considered 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 \$2,625.00.

Table 1. Protected Tree Inventory and Mitigation Table

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						
Quantity	Height (feet) <sup>1</sup>	Caliper (inch)	Tree Species	Aggregate Caliper (qty x cal)	Replacement Factor <sup>2</sup> (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 Planting

<sup>1</sup> Height applies only to multi-stemmed and evergreen trees. Height in feet x 0.25 = equivalent caliper inch contribution.						
<sup>2</sup> Bylaw requires .5" caliper replacement per 1" DBH removed.						
TREE FUND CONTRIBUTION						
Total DBH Requiring Mitigation	minus (-)	Mitigation Offset from Proposed Planting	equals (=)	Remaining DBH Requiring Mitigation	Tree Fund Contribution (\$375/in)	
28"		21"		7"	\$2,625	Mitigation Provided via Contribution to Tree Fund

## Appendix B: Contribution Rate Schedule

Per Section 5.3, and following a public meeting, the Select Board voted to establish the following contribution rate schedule at a meeting held on November 13, 2017:

<b>Contribution Rate Schedule</b>	
Contribution per inch of DBH not otherwise mitigated	\$375 per inch

Example:

**Total DBH to be removed and *not otherwise mitigated* = 10":** contribution of \$3,750 (10 x \$375)