

1. The luminaire has an angle of cutoff less than 76 degrees;
2. A line drawn from the height of the luminaire along the angle of cutoff intersects the ground at a point within the development site;
3. The bare light bulb, lamp or light source is completely shielded from direct view at any point five feet above the ground on neighboring properties or streets.

3.16.00 Tree Protection

3.16.01 Purpose

The purpose of this bylaw is to recognize that forests, regardless of size, are an important part of the ecological infrastructure of Tyngsborough, and as such, should be managed appropriately before and during construction.

3.16.02 Definitions

Activity Area - The portion of a property within which removal of vegetation (trees and shrubs) will occur.

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

Clear cutting - A technique that removes all the trees, regardless of size or species.

Hazardous Tree - A tree with a structural defect or disease, which impedes safe sight distance or traffic flow, or otherwise currently poses a threat to life or property as identified by a Certified Arborist or the Tree Warden.

Invasive Species - An introduced or exotic species that significantly modifies or disrupts the ecosystem in which it colonizes (e.g. Norway maple, black locust, tree of heaven).

Legacy Trees - A native, introduced or naturalized tree, as defined herein, which is 12" Diameter at Breast Height (DBH) or larger, or multi stemmed trees with a combined DBH equal to or greater than 18". Legacy Trees are provided special protection, including replacement.

Protected Tree - Any tree with a diameter at breast height of 10" or greater is considered a Protected Tree, unless it is an invasive species, as defined herein.

Replacement Tree - Native Trees identified in an approved Management Plan identified to replace trees that are: (a) approved for removal by the Conservation Commission and require replacement, or (b) any protected tree that is damaged as a result of site work in the Activity

Area, or (c) any trees that are removed but were not designated for removal on an approved Management Plan.

Tree Clearing Permit - A permit issued and monitored by the Conservation Commission authorizing land clearing activities in Tyngsborough.

Tree Clearing Plan - As defined in section 3.16.06 of this bylaw.

Understory Vegetation - Small trees, shrubs, and ground cover plants, growing beneath and shaded by the canopy of trees.

3.16.03 Applicability

The requirements of this by-law and all applicable rules and regulations apply to the following circumstances:

No person shall undertake any land clearing or clear cutting on an undeveloped lot nor commence construction activity of any scope on a lot that does not include a pre-existing structure on it without first obtaining a Tree Clearing Permit from the Conservation Commission.

3.16.04 Exemptions

The provisions of this by-law shall not apply to the following circumstances or activities:

1. Previously developed parcels with existing residential or non-residential buildings on it;
2. A residential parcel to be developed for a standalone single family dwelling, not part of a subdivision of more than 3 parcels.
3. Active, existing commercial operation of agricultural and horticultural uses, including (but not limited to), tree nurseries, orchards, and botanical gardens are exempt but new operations must apply for a waiver from the Conservation Commission before commencing clearing or removal of trees.
4. Routine maintenance of vegetation and removal of Hazardous Trees, dead or diseased limbs necessary to maintain health of cultivated plants, to contain noxious weeds and/or vines;
5. Normal maintenance and improvement of land in current agricultural use as defined in the Massachusetts Wetlands Protection Act regulations 310 CMR 10.04;
6. Maintenance to prevent or reduce the risk of fire per order of the Fire Department;
7. Any work of projects approved by the Planning Board and/or Conservation Commission for which necessary local approvals and permits have been issued prior to the effective date of this by-law;

8. Maintenance of public and private streets within town-approved roadway layouts and easements;
9. Maintenance of public utilities;
10. Removal of trees as part of a Habitat Restoration Plan approved by the Conservation Commission, The Department of Ecological Restoration and/or MA NHESP.

3.16.05 Review and Decision

The Conservation Commission shall be the permitting authority. A Tree Clearing Plan must also be submitted with any Special Permit application that requires a Site Plan Review from a Special Permit Granting Authority.

Upon receipt of a completed application and required plans as described in Section 3.16.06, the Conservation Commission shall transmit one copy of each to the Tree Warden and the Planning Board.

3.16.06 Application Requirements

Applicants must submit a Tree Clearing Permit application. This plan may be part of a landscape plan, site plan or a separate document, and include the stamp (if applicable), professional certification number, date and signature of all professionals involved in its preparation. All plans must be drawn to uniform scale and include the following elements:

1. Boundaries of the property, including all property lines, easements and the public and private rights-of-way.
2. The zoning district designation of the property and the location of applicable zoning setbacks per the Table of Standard Dimensional Requirements (Section 2.12.50).
3. The location of the Activity Area including all planned buildings, driveways, retaining walls and other improvements.
4. Proposed changes in grade.
5. Additional Materials: The Conservation Commission may request that the applicant submit additional materials or explanation for consideration before issuing a permit.
6. Revisions to the Plan During Construction: If it becomes necessary during the course of construction to remove trees not on the approved plan, the applicant may submit a revised Plan to the Conservation Commission to consider a modification. The revised plan shall clearly indicate any additional removals, and associated additional mitigation measures proposed.

3.16.07 Review Standards

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

No construction or site preparation work shall be done on any land including the removal of living trees of greater than ten (10) inch caliper at breast height or the removal of greater than ten percent (10%) of existing vegetation until all necessary permits and approvals have been obtained.

This section shall not prohibit site work reasonably necessary for conducting land survey or tests required as a condition precedent to the issuance of any permit or approval.

If, after obtaining all necessary permits and approvals, such work commences and is then abandoned, all areas of the site which were disturbed during construction or site preparation shall be re-vegetated in a manner sufficient to avoid erosion.

3.16.08 Additional Considerations

1. Slopes greater than 25% should be cleared last if possible and do not pose safety risk for the work site. Slopes that are cleared shall be stabilized to avoid erosion or safety risks during and after construction;
2. Minimize land clearing. No clearing of land shall take place until an approved Special Permit, approved subdivision plan, or a building permit for a by-right parcel has been issued;
3. Activity Area design shall reduce unnecessary tree clearing to the maximum extent feasible;
4. Preserve Connections of Existing Contiguous Open Space or Forested Areas.
 - a. In the design of a project, efforts shall be made to maintain connections of existing stands of trees, trees at the site perimeter, contiguous vegetation with adjacent sites (particularly existing sites protected through conservation restrictions), and Wildlife Corridors;

5. Protect Wildlife Habitat:

- a. Site work shall be designated to avoid alterations of Critical Wildlife Habitat Areas and Significant Forest Communities;
- b. Site work shall be designed in such a way as to maintain continuous forested areas and wildlife corridors;

- c. All trees outside of the Activity Area shall be protected during site work and construction. Protected trees which die shall be replaced in accordance with Section 3.16.09 of the by-law.
- d. Prevent Damage to Protected Trees and other trees not authorized for removal.
- e. Clearing for utility trenching shall be limited to the minimum area necessary to maneuver a backhoe or other construction equipment. Roots should be cleanly cut rather than pulled or ripped out during utility trenching. Tunneling for utilities installation should be utilized where feasible to protect root systems of trees.
- f. Understory vegetation beneath the drip line of protected 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.

3.16.09 Replacement of Trees

- 1. Replacement trees shall be at least 2-3" caliper and planted in areas approved by the Conservation Commission;
- 2. Legacy Trees and Protected Trees that are not approved for removal, but are damaged, shall be replaced as follows:
 - a. Three (3) native trees of similar species (as determined by the existing Forest Type), which will reach similar height at maturity and provide at least the same benefits and services shall be planted for each unauthorized Legacy Tree or Protected Tree that is damaged.
- 3. Removal of Invasive Tree Species
 - a. At their sole discretion, the Conservation Commission may allow a reduction in the above requirements if the applicant completes removal of invasive tree species and replaces them with native tree species.

3.16.10 Required Security

The Conservation Commission may require a performance guarantee in a form acceptable to the Town to cover the costs associated with replacement of trees planted in accordance with section 3.16.09 of this bylaw.

Town of Tyngsborough- Zoning Bylaw

1. The required performance guarantee in the amount of 150% of the estimated cost of required tree replacement shall be posted prior to the issuance of a Tree Clearing Permit for the proposed project.
2. The performance guarantee shall be held for the duration of any prescribed maintenance period required by the Conservation Commission 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 with suitable native species. Securities shall not be fully released without a final inspection and approval of vegetation replacement by the Tree Warden.

3.16.11 Enforcement

The Town of Tyngsborough may take any or all of the enforcement actions prescribed in this by-law to ensure compliance with, and/or remedy a violation of this by-law; and/or when immediate danger exists to the public or adjacent property, as deterred by the Tyngsborough Conservation Director. Securities described in 3.16.10 above may be used by the Town in carrying out necessary enforcement actions.

The Tyngsborough Conservation Director may post the site with a Stop Work order directing that all vegetation clearing not authorized under a Tree Clearing Permit cease immediately. The issuance of a Stop Work order suspends any Tree Clearing Permit issued by the Town.

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

3.16.12 Severability

If any provision of this by-law is held invalid by a court of competent jurisdiction, the remainder of the by-law shall not be affected thereby. The invalidity of any section or sections or parts of any section or sections of this by-law shall not affect the validity of the remainder of the Town of Tyngsborough's by-laws.

4.00.00 SPECIAL REGULATIONS

4.10.00 Special Permits - Major Business Complex

4.10.10 Applicability and Objectives

Any premises having more than 5,000 square feet gross floor area used as retail stores, personal and general services (including motor vehicle), restaurant, fast food establishment,