

INTRODUCED BY

Ward Three Councillor Kevin F. Coughlin,

CITY OF QUINCY
IN COUNCIL

ORDER NO.

ORDERED: 2008-048

January 22, 2008

Be It Hereby Ordained By The Quincy City Council That The City of Quincy Establish

Chapter 18.20
Tree Protection Ordinance of the City of Quincy

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Section 18.20.010 Statement of Purpose

1. The City Council hereby finds that the preservation of existing trees and the promotion of new tree planting is a public purpose that protects the public health, welfare, environment and aesthetics of the City of Quincy and its citizens. This ordinance is enacted to protect both Public Shade Trees pursuant to Massachusetts General Laws Chapter 87 and certain trees on private land.

The urban forest serves a wide variety of functions, which promote the health, safety and welfare of residents. These functions include:

- (a) conserving energy, by providing shade and evaporative cooling through transpiration;
- (b) improving local and global air quality by absorbing carbon dioxide and ozone, absorbing particulate matter, and producing oxygen;

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- (c) reducing wind speed and directing air flow; conserving air conditioning through shading and heating through wind breakage
- (d) reducing noise pollution;
- (e) providing habitat for birds, small mammals, and other wildlife;
- (f) reducing storm runoff and the potential for soil erosion and providing natural flood control;
- (g) increasing real property values; and
- (h) enhancing visual and aesthetic qualities that attract visitors and businesses, contributing to the distinct character of neighborhoods while providing natural privacy to neighbors;

Section 18.20.020 Definitions

1. Building. A structure enclosed within exterior walls or firewalls, built, erected and framed of a combination of any materials, whether portable or fixed, having a roof, to form a structure for the shelter of persons, animals or property.

Certified Arborist. An arborist certified by the Massachusetts Arborists' Association or the International Society of Arboriculture, or any successor of either organization.

City Arborist. The City Arborist appointed by the Mayor or any other Certified Arborist designated by the Director of Parks and Forestry and approved by the Mayor to exercise any of the authority granted to the City Arborist pursuant to this Chapter.

Critical Root Zone The area of undisturbed natural soil around a tree defined by a concentric circle with a radius equal to the distance from the trunk to the outermost drip line.

DBH (Diameter at Breast Height). The diameter of a tree trunk measured in inches at a height of four (4) feet above the ground.

Drip Line Whichever is greater of: (1) a vertical line run through the outermost portion of the canopy of a tree and extending to the ground, or (2) if the tree is damaged or deformed as a result of tree growth or other cause, a circular area with a radius of ½ the height of the tree extending outward from the center-point of the tree.

Lot. A parcel of land in identical ownership throughout, bounded by other lots or streets, which is designated by its owner to be used, developed or built upon as a unit.

Mitigation Plan. A document to be included within any Tree Study submitted for a project where any Significant Trees are proposed to be removed from a lot, stating (i) why any Significant Trees are proposed to be removed from a lot, (ii) a description of the Replacement Trees proposed to replace the Significant Trees to be removed or the value of which is proposed to be paid to the City to be deposited into the Tree Replacement Fund, (iii) an estimate from a local nursery for the cost of purchasing, planting, watering and (in the case of commercial or multi-unit residential)maintaining said Replacement Trees for a period of not less than five years or the value of which is proposed to be paid to the City to be deposited into the Tree Replacement Fund, and (iv) certification from a Certified Arborist that the proposed Replacement Trees and cost estimates for purchasing, planting,

watering and maintaining said Trees are appropriate and reasonable. The Director of Parks and Forestry shall determine tree replacement for the Significant Tree(s) to be replaced by a formula such that the replacement trees are no less than four (4) inch caliper and in total approximately equal the DBH of the Significant Tree(s) being replaced. Species shall be determined by the Director of Parks and Forestry based on favorability and survivability in light of the surrounding environment.

Owner. For purposes of this Chapter, an owner shall be defined as set forth in the City of Quincy Assessor's Office records.

Protected Tree. any tree subject to the provisions of this ordinance

Replacement Trees. A tree or trees to be planted on a lot to replace any Significant Trees to be removed from the lot, or whose equivalent value is proposed to be paid to the City to be deposited into the Tree Replacement Fund instead of planting Replacement Trees on the lot. The total DBH of Replacement Trees, or equivalent value, as applicable, shall be equal to or exceed the total DBH of the Significant Trees to be removed from the lot.

Significant Trees. Any tree or trees larger than 8" DBH which are on a lot or which has been removed from the lot within one year prior to the submission of a Tree Study to the City Arborist.

Tree Protection Plan. This plan may be either a separate drawing or part of a landscape plan, and shall include the following information:

a) Drawings of tree protection measures and (i) their location on the lot, including Tree Save Areas, and the location, height and DBH of Significant Trees and an indication of which Significant Trees would remain on the site, or (ii) in the event that any Significant Trees are proposed to be removed, the location of those Significant Trees, and the location, height and DBH of Replacement Trees which are proposed to be planted on the lot if feasible, or (iii) in the event that Replacement Trees are not proposed to be planted on the lot, the total sum, as identified in the Mitigation Plan, to be paid to the City to be deposited into the Tree Replacement Fund, shall be required to be submitted together with the Tree Protection Plan;

b) A schedule for planting the proposed Replacement Trees and a representation that such trees will be inspected and, if necessary, treated by a Certified Arborist once a year for five years; and

c) Such other information as is required by the City Arborist pursuant to applicable regulations.

Tree Save Area. The area surrounding a tree which must remain undisturbed so as to prevent damage to the tree.

Tree Study. The information submitted to the City Arborist, which shall include a Tree Survey, a Tree Protection Plan, and, if applicable, a Mitigation Plan.

Tree Survey. A plan showing the location, type, height and DBH of all trees on a lot.

Section 18.20.030 Applicability

1. This Chapter shall apply to all Significant Trees located on lots specified in the following section §18.20.040 as well as Public Shade Trees as regulated in section 18.20.060. This Chapter shall not apply to any project which purpose is solely and exclusively intended for the construction of low and moderate-income housing meeting the standards established pursuant to any City, State or Federal housing program designed to assist low and moderate-income households. For any project wherein there will be no tree displacement, the project applicant must submit to the appropriate permit granting authority a drawing indicating tree location on the site of the project with a written certification that no tree displacement shall occur.

Section 18.20.040 Procedure for Projects

The Building Department shall make available to an applicant a copy of the tree preservation ordinance or a condensed summary of the relevant aspects pertaining to the type of permit requested.

1.(a.) In any project (with Significant Tree displacement) which requires a variance or special permit under the Zoning Ordinance, the application for the variance or special permit shall include a Tree Study, which shall first have been submitted to the City Arborist not less than twenty-one (21) days prior to the submission of the application for a variance or special permit. The Tree Study shall be reviewed by the City Arborist, who shall certify that he has reviewed it, indicating whether it is complete and complies with the applicable provisions of this Chapter and regulations promulgated there under. The City Arborist shall refer the Tree Study with his certification and recommendations to the Zoning Board, Planning Board, or City Council in its capacity as PUD PGA to assist said Boards or council in establishing any conditions that may be required as a result of the findings of the Tree Study in connection with the issuance of a variance or special permit. In the absence of a City Arborist as herein defined, the applicant shall submit a plan certified by an independent certified arborist indicating therein that the plan is in substantial conformance with this ordinance.

(b.) Regarding any by right project (with Significant Tree displacement) defined in Table A which is subject to the provisions of the Zoning Ordinance, the materials submitted to the Inspectional Services Department with the application for a building permit shall include a Tree Study, together with a certification from the City Arborist that the applicant has submitted the Tree Study for review to the City Arborist not less than twenty-one (21) days prior to the submission of the application for a building permit, and that the Tree Study is complete and complies with the applicable provisions of this Chapter and regulations promulgated thereunder. The owner of the lot shall be required to commit to comply with all provisions of the Tree Study and the applicable provisions of this Chapter and regulations promulgated hereunder in the application for a building permit.

Table A

- (i) the proposed demolition of an existing residential structure and its replacement with a new structure.
- (ii) the proposed construction of an addition to the existing residential structure that constitutes a 25% or greater increase in the building area footprint

- (iii) the proposed demolition of an existing non-residential structure and its replacement with a new dwelling/structure.
- (iv) the proposed construction of an addition to the existing non-residential structure that constitutes a 25% or greater increase in the building footprint.
- (v) the proposed new construction of a residential or non-residential structure on any lot.

(c.) Parking areas as further defined herein.

Parking Area Requirements

Tree Shading. Trees shall be planted and maintained throughout the surface parking lot to ensure that within fifteen (15) years after establishment of the parking lot, at least (50) percent of the parking area will be shaded.

- (i) Surface Parking Lot. Except as provided herein, all surface parking on which a vehicle can drive is subject to shade calculation, including all parking stalls; all drives within the property, regardless of length and including drive through lanes; and all maneuvering area, regardless of depth. The following surfaced areas are exempt from this shade requirement: a) truck loading area in front of overhead doors; b) truck maneuvering and parking areas unconnected to and exclusive of vehicle parking; c) surfaced areas not to be used for vehicle parking, driving or maneuvering provided they are made inaccessible to vehicles by a barrier such as bollards or fencing; d) automobile dealerships, display, sales, service, vehicle storage areas; e) existing surfaced areas; f) driveways of residential projects of one (1) to four (4) units.
- (ii) Shading. Shading should be calculated by using the diameter of the tree crown at fifteen (15) years. Each planting area shall be of sufficient size, have sufficient irrigation and be properly maintained. So as to meet the intent of this ordinance.
- (iii) A site plan shall be submitted to the City Arborist for review and recommendation to the PGA (Zoning Board, Planning Board, City Council) or Director of Inspectional Services who shall have the discretion to modify tree shading requirements due to power lines and other obstructions which prohibit strict compliance, and to give shading credit for photovoltaic arrays, off site trees, sidewalk canopies, and other structures where appropriate.

Section 18.20.050 Tree Replacement

1. If significant Trees are to be removed from a lot in connection with the development of a project subject to the provisions of this Chapter, upon approval of any project subject to the provisions of §18.20.040(a) of this Chapter by grant of a variance from the Zoning Board or special permit from the Planning Board, or submission to the Inspectional Services Department of certification from the City Arborist under the provisions of §18.20.040(b) of this Chapter, the owner of the lot shall either plant Replacement Trees on the same lot in accordance with the schedule set forth in the Tree Study, or he shall pay the estimated cost of Replacement Trees and associated costs for the maintenance of said trees pursuant to the Mitigation Plan, if applicable, to the City to be deposited into the Tree Replacement Fund. In addition, the owner of the lot shall, prior to the issuance of a building permit, post and file a bond with the City Clerk in the amount of the total costs set forth in the Mitigation Plan with one or more sureties conditioned to the faithful observance of the conditions and specifications of the Tree Protection Plan and, if applicable, the Mitigation Plan.

Section 18.20.055 Tree Replacement Fund

There is hereby established a Tree Replacement Fund which shall be held by the City Treasurer in an account and administered in accordance with applicable provisions of the General Laws MGL Chapter 44, Sec. 53 E 1/2. Any payments into the Tree Replacement Fund required by §18.20.050 shall be deposited in said Fund, and shall be used solely for the purpose of buying, planting and maintaining trees in the City.

Section 18.20.060 Regulation of Public Shade Trees

Local regulation of Public Shade Trees is subject to the provisions of MGL Chapter 87.

Public Utility Projects:

For any project conducted by a public utility, all protected trees that must be removed in order to install utility lines within a public right of way or utility easement shall be subject to the tree replacement and tree protection requirements of this Ordinance. All protected trees to be altered must be done in accordance with best practices, standards and pruning procedures to promulgated by the City Arborist under the direction of the Director of Park and Forestry. Said practices, standards and procedures shall at a minimum conform with American National Standards Institute (ANSI) A300. The public utility's request for tree removal must be accompanied by a site plan or construction plan and shall reasonably comply with the regulations set forth herein. There shall be no guy wiring attachments or tethering to any city tree without the expressed written permission of the Director of Parks and Forestry.

Public Works Projects:

Public Works Department shall notify the Park and Forestry Department of any application for new curb, sidewalk or driveway installation or other improvements which might require removal of or cause injury to any street tree, or interfere with the fulfillment of the intent of this ordinance.

Section 18.20.070 General Regulations

1. The Director of the Park and Forestry Department shall have the authority to promulgate regulations to accomplish any of the provisions of this ordinance and shall coordinate with Director of Inspectional Services and Commissioner of Public Works where appropriate and required to facilitate compliance with this ordinance.
2. Tree Protection Procedures

(a) Prohibited Activities in Critical Root Zone: The following activities are prohibited within the limits of the critical root zone of any protected tree subject to the requirements of this ordinance.

(i). **Material Storage:** No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the critical root zone of any protected tree.

(ii). **Equipment: Cleaning/Liquid Disposal:** No equipment shall be cleaned or other liquids deposited or allowed to flow overland within the limits of the critical root zone of a protected tree. This includes, without limitation, paint, oil, solvents, asphalt, concrete, mortar or similar materials.

(iii). **Tree Attachments:** No signs, wires or other attachments, other than those of a protective nature, shall be attached to any protected tree. Fencing attached to a tree via "U" nails or bent nails is allowed only if the fencing is parallel to and contiguous with the tree.

(iv).**Vehicular Traffic:** No vehicular and/or construction equipment traffic or parking shall take place within the limits of the critical root zone of any protected tree other than on existing street pavement. This restriction does not apply to single incident access within the critical root zone for purposes of clearing underbrush, establishing the building pad and associated lot grading, vehicular traffic necessary for routine utility maintenance, emergency restoration of utility service, or routine mowing operations.

(v).**Grade Changes:** No grade changes shall be allowed within the limits of the critical root zone of any protected tree unless adequate construction methods are approved by the Director of Inspectional Services in consultation with the City Arborist.

(vi).**Impervious Paving:** No paving with asphalt, concrete or other impervious materials that may reasonably be expected to kill a tree shall be placed within the limits of the critical root zone of a protected tree excepting trees existing within the public ways.

(b) Prohibited Activities in Drip Line: No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, bobcat tractors, trenchers, compressors, and hoists, shall be allowed inside the drip-line of any protected tree on any construction site without the specific approval of the Director of Inspectional Services, excepting public works projects on a public way.

(c) Procedures Required Prior to Construction: The following procedures shall be followed on all types of construction projects (including without limitation residential, commercial, and municipal / public domain projects).

(i) **Protective Fencing:** Prior to construction, the contractor or subcontractor shall construct and maintain, for each protected tree on a construction site, a protective fencing which encircles the outer limits of the critical root zone of the tree to protect it from construction activity. All protective fencing shall be in place prior to commencement of any site work and remain in place until all exterior work has been completed.

(ii) **Bark Protection:** In situations where a protected tree remains in the immediate area of intended construction exposing the tree bark to danger of damage: by construction equipment or other activity, the contractor or subcontractor shall protect the tree by enclosing the entire circumference of the tree with 2" x 4" lumber encircled with wire or other means that do not damage the tree. The intent is to protect the bark of the tree against incidental contact by large construction equipment.

(d) Construction Methods

(i) **Boring:** Boring of utilities under protected trees shall be required in those circumstances where it is not possible to trench around the critical root zone of the protected tree. When required, the length of the bore shall be the width of the critical root zone at a minimum and shall be a minimum depth of 48 inches.

(ii) **Trenching:** All trenching shall be designed to avoid trenching across the critical root zone of any protected tree. The placement of underground utility lines such as electric, phone, gas, etc., is encouraged to be located outside of the critical root zone of protected trees. Trenching for an Irrigation system shall be placed outside of the critical root zone, except the minimum required single head supply line is allowed to extend into

the critical root zone perpendicular to the tree trunk and in the manner that has the least possible encroachment into the critical root zone.

(iii.) **Root Pruning:** All roots two inches or larger in diameter which are exposed as a result of trenching or other excavation shall be cut off square with a sharp medium tooth saw and covered with pruning compound within two hours of initial exposure.

(e) Tree Topping/ V Cutting: It shall be unlawful for any person to "V cut" or top any tree without having written approval of the Director of Parks and Forestry or under his/her direction, the City Arborist upon determination that topping the tree is necessary and there is no feasible alternative because the tree has been severely damaged by storms or other causes, or is under utility wires or other obstructions, making other pruning practices impractical.

Section 18.20.080 Performance Evaluation

The Director of Park and Forestry with the assistance of the Tree and Urban Forest Commission shall collect and maintain all records and data necessary to objectively evaluate whether progress is being made towards the intent, purpose and objectives of this ordinance. An annual summary and analysis of the evaluation and recommendations for action shall be prepared and presented to the City Council. The City Council shall consider the report and recommendations and take all actions deemed necessary to accomplish the goals of this ordinance. These actions may include, but are not limited to revision or amendment of this ordinance

Section 18.20.090 Enforcement

1. (a) **Notice of Violations.** Any person who violates any of the provisions of this Chapter shall be notified by the City Arborist of the specific violation by certified or registered mail, return receipt requested, or by hand delivery. The notice shall set forth the nature of the violation and a reasonable time period within which compliance must be had.

(b) Stop Work Order

(i) Upon notice from the City Arborist that work on any lot on which a Significant Tree is located is being performed contrary to any applicable Mitigation Plan or Tree Protection Plan or any provision of this Chapter, such work shall be immediately stopped by the Commissioner of Inspectional Services or his designee. The stop work order shall be in writing, and shall be given to the owner of the lot involved, or to the owner's agent, or to the person doing the work, and shall state the conditions under which work will be permitted to resume.

(ii) Any person who shall continue any work in or about said lot after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not more than \$300.00. Each day during which a violation exists shall constitute a separate offense

(c) **Injunctive Relief.** Whenever there exists reasonable cause to believe that a person is violating any applicable Mitigation Plan or Tree Protection Plan or any provision of this Chapter, the City may institute a civil action for a mandatory or prohibiting injunction ordering the defendant to correct the unlawful condition or cease the unlawful use of the property.

(d) **Failure to Replace Trees or Make Payment.** Each failure to replace a Significant Tree or make a payment into the Tree Replacement Fund or to post and maintain a bond in accordance with §18.20.050 shall constitute a separate violation of this Chapter for which there shall be a fine in the amount of not more than \$300.00. Each day such violation continues shall constitute a separate offense.

(e) **Alternative Penalty.** As an alternative to any fine stated in this §18.20.080, citations may be issued pursuant to G.L. c. 40, §21D, assessing a fine of not more than \$300.00 for each day the violation is committed or permitted to continue. The Director of Inspectional Services or his designee, the City Arborist, employees of the Department of Public Works and Police Officers shall be the authorized enforcement personnel.

(f) **Certificate of Occupancy:** No Certificate of Occupancy (C.O.) shall be issued until all civil penalties for violations of this ordinance have been paid to the City. No Certificate of Occupancy shall be issued until all replacement trees have been planted or appropriate payments have been made to the Tree Replacement Fund, provided, however, that a Certificate of Occupancy may be granted before all trees have been replaced if the City retains the surety bond cited in 18.20.050 or an equivalent cash deposit.

Section 18.20.100 Emergencies and Exemptions

Provisions of this ordinance shall not apply to

- a) emergency projects necessary for public safety, health and welfare as determined by the Commissioner of Public Works or the Director of Parks and Forestry;
- b) trees that are hazardous (threat to life or property) as determined by the City arborist;
- c) trees identified by the Commonwealth that pose a risk due to insect disease infestation.

Section 18.20.110 Severability

1. The provisions of this Chapter are severable. If any section, provision or portion of this Chapter is determined to be invalid by a court of competent jurisdiction, the remaining provisions of this Chapter shall continue to be valid

INTRODUCED BY

CITY OF QUINCY
IN COUNCIL

ORDER NO.

ORDERED:

2008-048

January 22, 2008

Section 18.20.120 Indemnification

Nothing contained in this ordinance shall be deemed to impose any liability upon the city, its officers or employees, nor to relieve the owner of any private property from the duty to keep any tree on his property or under his control in such condition as to prevent it from constituting a hazard or an impediment to travel or vision upon any street, park boulevard, alley or public place within the city.

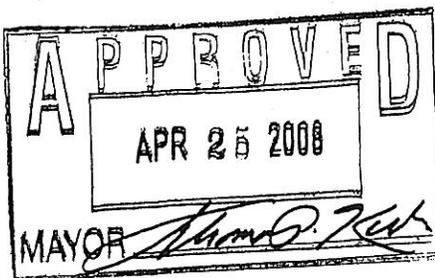
Section 18.20.130 Effective Date

1. This ordinance shall take effect upon passage.

PASSED TO BE ORDAINED APRIL 22, 2008

ATTEST:

M. J. Shea
CLERK OF COUNCIL



YEAS Coughlin, Davis, Finn, Gutro, Keenan, Kelly, McFarland, McNamee, Raymondi (8)

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