

**Amendment 1**  
**ORDINANCE 2001 - 8**  
**Tree Protection Ordinance**

The following ordinance is designed to promote the health, safety, order, aesthetics and general welfare by protecting against incompatible uses of land, providing for a more attractive urban environment, assuring adequate open space, and reducing noise, night lighting, glare, odor, objectionable views, loss of privacy and other adverse impacts and nuisances through the use of buffers, landscaping and preservation of trees. This ordinance is designed to encourage the protection of trees. Public and private significant trees are to be preserved to better control problems of flooding, soil erosion and air pollution.

Therefore, the goals of this ordinance are to:

1. Protect and replace significant trees in the City of Dahlonega on public and right of way property.
2. Provide encouragement and expertise to private single-family residences for the protection and preservation of residential trees.
3. Provide developers with tree requirements prior to issuance of permits and establish penalties for violations of the tree requirements set forth.
4. Provide for the enforcement of this tree ordinance.

**Section 1. APPLICABILITY**

- (1) The terms and provisions of the Tree Protection Ordinance and these standards shall apply to any activity which requires the issuance of a development permit. No development permit or grading permit shall be issued until it is determined that the proposed development is in conformance with the provisions of the Ordinance.

This ordinance applies to (1) all public properties and rights of way, (2) zones for which no tree protection and preservation has been approved, (3) an approved tree protection and preservation plan which is modified, (4) any activity which requires the issuance of a development permit.

This ordinance does not apply to (1) tracts which zoning ordinances impose no yard requirements and permits 100% coverage of the lot by buildings, (2) property already occupied by an owner as a single family residence, (3) public utilities and government agencies conducting activities to insure uninterrupted utility and government services and unobstructed passage on public streets because of an emergency (submission of a tree plan by the utility or government agency is desirable when possible) (4) tree farms, (5) approved public recreation areas or private recreation areas which have been issued a business license.

## **Section 2. EXEMPTIONS**

- (1) The following shall be exempt from the provisions of this Ordinance:
  - (a) The removal of trees from an owner occupied, single family or duplex.
  - (b) The removal of trees from horticultural properties such as farms, nurseries or orchards. This exception shall not be interpreted to include timber harvesting incidental to development of the land.
  - (c) The necessary removal of trees by a utility company within dedicated utility easements.
  - (d) The removal of trees on public rights-of-ways conducted by, on behalf of, or for any activity to be dedicated to a federal, state, county, municipal or other government agency in pursuit of its lawful activities or functions in the construction or improvement of public rights-of-way.
  - (e) The removal of trees, other than specimen trees from detention ponds and drainage easements.
  - (f) The removal of any tree which has become or threatens to become a danger to human life or property.
  - (g) The removal of trees from recreation areas such a public or private playgrounds, ball fields, golf courses and other such uses.
- (2) Notwithstanding the foregoing, all reasonable efforts shall be made to save specimen trees.

## **Section 3. GENERAL CRITERIA FOR THE DETERMINATION OF SPECIMEN TREES OR STANDS OF TREES.**

- (1) Specimen tree:
  - (a) Any tree in fair or better condition which equals or exceeds the following diameter sizes.
    - i. 24" dbh - Large hardwoods such as oaks, hickories, yellow poplars, sweetgums, etc...
    - ii. 30" dbh - Large softwoods such as pines, deodar cedars, etc..
    - iii. 4" dbh - Small trees such as dogwoods, redbuds, sourwoods, etc...
  - (b) A tree in fair or better condition must meet the following minimum standards:
    - i. A life expectancy of greater than 15 years
    - ii. A structurally sound trunk, not hollow and having no extensive decay, and less than twenty (20) percent radial trunk dieback.

- iii. No more than one major and several minor dead limbs (hardwoods only)
  - iv. No major insect or pathological problem.
- (c) A lesser sized tree can be considered a specimen tree if it is a rare or unusual species, of exceptional or unique quality, or of historical significance.
  - (d) A lesser size tree can be considered a specimen tree if it is specifically used by a builder, developer, or design professional as a focal point in a landscape project.
- (2) Specimen tree stands - A contiguous grouping of trees which has been determined to be of high value in the opinion of the Inspector. Determination is based upon the following criteria:
- (a) A relatively mature, even-aged stand.
  - (b) A stand with purity of species composition or of a rare or unusual nature.
  - (c) A stand of historical significance.
  - (d) A stand with exceptional aesthetic quality.

#### **Section 4. MINIMUM TREE DENSITY REQUIREMENTS FOR DEVELOPERS**

- (1) A basic condition of the Dahlenega Tree Ordinance is that all applicable sites maintain an average minimum tree density of twenty (20) units per acre. The term "unit" is an expression of basal area, and is not synonymous with "tree". The density requirement must be met whether or not a site had trees prior to development for the issuance of a development permit.

The density may be achieved by counting existing trees to be preserved, by planting new trees according to the minimum standards in this Ordinance or by a combination of the two.

Minimum tree density shall be calculated and established pursuant to the formula and analysis set forth in Appendix B to this Ordinance.

- (2) Notwithstanding the foregoing, it is required that all reasonable efforts be made to save specimen trees. Reasonable efforts shall include, but not be limited to, alteration of building design; alternate location of building, parking area, water retention, drainage pipes; or relocation of utilities.
- (3) Only 20% of trees included in the density requirements may be softwoods (section 3.1.a.ii).
- (4) Tree requirements, as noted in Design Plans may be amended by the City Council in cases where minimum tree densities are not evenly distributed on the net site area where aesthetic appearances are an issue.

## **Section 5. APPLICATION REQUIREMENTS**

When a person applies for a development permit, such person shall also file an application for a tree removal permit providing the following information:

- (1) A complete Tree Protection Plan, as specified in Section 7. This plan shall be an integrated site plan showing specimen trees, the tree protection areas, those trees to be saved, and utilities to be installed, grading, the approximate location of all structures, driveways and curb cuts, proposed tree planting and other landscaping.
- (2) A complete Tree Replacement Plan as specified in Section 8. Replacement trees used in density calculation must be ecologically compatible with the intended growing site. A list of acceptable replacement trees is provided in The Dahlongea Tree Ordinance - Appendix C, Tree Species Selection List.
- (3) Minor additions to existing developments require that a sketch showing proposed changes be submitted to the inspector designated by the City hereafter know as the inspector in this document for review and approval.

## **Section 6. TREE SURVEY INSPECTION**

Following the receipt of the completed tree removal application, Tree Survey Plan and supporting data, the Inspector shall schedule and conduct an inspection of the proposed development site within ten (10) working days. The applicant or his designee shall be advised as to the date and time of the inspection and given an opportunity to participate. Following inspection, the Inspector, consistent with the purposed of this Ordinance, shall advise the applicant of any recommended changes in the applicants proposed tree removal, protection or replanting plans.

## **Section 7. TREE PROTECTION PLAN - DOCUMENTS REQUIRED**

- (1) Before the commencement of any alteration, defoliation or land disturbing activity which requires the issuance of a development permit, a Tree Protection Plan is required.
- (2) The Tree Protection Plan shall be a detailed plan designed to protect and preserve trees before, during and for a period of two (2) years after construction.

Required specification for a Tree Protection Plan include, but are not limited to, the following:

- (1) The identity of the tract of land upon which tree(s) sought to be removed are located.
- (2) The name, address and phone number of the owner of the land and the name, address and phone number of any tenant of the property.
- (3) The type, location and size as measured at the diameter breast height of the tree(s) constituting those to be protected. Only trees designated on the Tree Protection Plan will be counted toward density requirements.

- (4) Location of all specimen trees and their critical root zones (CRZ's). Indicated those specimen trees proposed for removal or for preservation. Removal of specimen trees is subject to approval by the Inspector. Any specimen tree proposed for removal is to be identified in terms of exact location, size and species.
- (5) Indication of staging areas for parking, including buffer areas, material storage, concrete washout, debris burn and burial holes and other areas where tree protection may be affected.
- (6) A delineation of tree save areas in which trees have been inventoried for density calculation.
- (7) Location and details for all permanent tree protection measures (tree wells, acration systems, permeable paving, retaining walls, bollards, etc.)
- <sup>1</sup>(8) *Trees and shrubs for overhead utility easements. The heights of utility lines vary. Select large shrubs and small trees with mature heights which are less than the line height. Suggestion list available.*

**Section 8. TREE REPLACEMENT PLAN - STANDARDS AND REVEGETATION**

- (1) A separate Tree Replacement Plan indicating the location of all proposed trees for revegetation is required. This plan will be included as a part of the Tree Protection Plan.
- (2) The Tree Replacement Plan is to include planting schedules with proposed tree names (botanical and common), quantity, size, spacing and ay special planting notes.
- (3) The use of flowering ornamental trees or plants classified as large shrubs may be included in the Tree Replacement Plan, but shall not be used for the purpose of meeting density calculations for the site unless approved by the Inspector.
- (4) All replanted overstory trees shall be a minimum of eight (8) feet tall and have a trunk of not less than two and one-half (2.5) caliper inches. All replaced understory trees shall be a minimum of six (6) feet tall and have a trunk of not less than one and one-half (1.5) inches. In order to provide sufficient growing area for planted trees, the following minimum criteria must be observed unless otherwise approved by the Inspector. Overstory Trees - 200 square feet of pervious root zone. Understory Trees - 75 square feet of pervious root zone (However, up to 30% of root zone may be impervious area)
- (5) Planting and staking details are to be provided on the plan.
- (6) Trees must be relocated or replaced on site in accordance with the provisions of this Ordinance as well as Section 2100 et.seq. of the Dahlonga Zoning Ordinance.
- (7) Debris removed. All debris from trees cut or substantially damaged shall be removed from the site in a timely fashion including the removal of any portion of the tree

stump above the original natural grade or elevation of land unless excepted by the Inspector for a specific reason such as, but not limited to unusually large size or age.

### **Section 9. PERMIT PROCEDURES**

- (1) Prior to the issuance of a development permit, a Tree Protection Plan must be submitted to the Inspector.
- (2) All Tree Protection plans and related documentation shall be reviewed by the Inspector for conformance to the provisions of this ordinance and either approved, returned for revision, or denied. If denied, the reasons for denial shall be annotated on the Tree Protection Plan or otherwise stated in writing.
- (3) All tree protection measures shall be installed prior to any land disturbance, and the Inspector shall be contacted for a pre-construction conference prior to land disturbance. Land disturbance may proceed only after a permit is obtained and tree protection measures have been approved by the Inspector.
- (4) After completion of a development, the Inspector will conduct an on-site inspection of the site to ensure compliance with the Tree Protection Plan and Design Plans.
- (5) The Inspector shall make unscheduled inspections before and during development to ensure protection of trees, critical root zones and buffer zones.
- (6) All single family uses and properties within the Historic District shall require approval by the Historic Preservation Commission.

### **Section 10. REMOVAL OF TREES - CONDITIONS AND EXCEPTIONS**

- (1) Tree removal shall be disallowed in the following circumstances:
  - (a) Soil erosion or runoff problems will result due to topography, soil type, or proximity to flood plain or river protection areas; and the removal will substantially alter the existing soils adversely with regard to runoff and erosion. Information submitted by the city Engineer or other environmental specialist may be used by the Inspector in his/her evaluation.
  - (b) Specimen trees are located on site and cannot be adequately protected or replaced. Additionally, removal may be disallowed if reasonable accommodations can be made to alter the proposed project to save specimen trees and have not been made.
  - (c) Property degradation - the removal will have a significant adverse effect on property values of any adjoining property.
  - (d) Pruning - any substantial amount of pruning which results in unsightly appearance or predisposing the tree to pathogens, reducing the health and vigor of the tree.

(2) Exceptions.

Tree removal from a site may be allowed if:

- (a) The tree is located in an area where a structure or improvement will be placed and the tree cannot be relocated on the site because of age, type or size of tree.
  - (b) The tree interferes with existing utility service.
  - (c) The tree creates an unsafe vision clearance for vehicular movement.
- (3) Trees must be relocated or replaced on site in accordance with the provisions of this Ordinance as well as Section 2100 et.seq. of the Dahunega Zoning Ordinance. Prior to approval of the Tree Protection Plan, the Inspector shall require relocation or replacement of each tree being moved or removed on the site to be supplemented with additional trees to establish within the tree protection zone a minimum of one tree per five hundred (500) square feet of minimum required open space per Section 16 and 17 of the Dahunega Zoning Ordinance.

**Section 11. TREE PROTECTION DURING CONSTRUCTION**

- (1) No person in the construction of any structure(s) or improvement(s) or any activity shall encroach or place solvents, material, construction machinery or temporary soil deposits with six (6) feet of the area outside the drip line, as defined herein, of any specimen tree or any tree within a tree protection zone.
- (2) Before development, land clearing, filling or any land alteration, the developer shall be required to erect suitable protective barriers as required by the Inspector, including tree fences, tree protection signs, and erosion barriers until completion of site landscaping. Authorization to remove the protective devices shall be in writing by the Inspector or by the issuance of a final Certificate of Occupancy. Inspection of tree protection barriers is required prior to any land disturbance or development. The Inspector shall be contacted to schedule an inspection time.
- (3) Materials for active tree protection shall consist of chain link, orange laminated plastic, wooden post and rail fencing or other equivalent restraining material. In addition to fencing, where active tree protection is required, each tree to be saved shall be marked at the base of the trunk with blue colored water-based paint.
- (4) Materials for passive tree protection shall consist of heavy mil, plastic flagging, a minimum of four (40 inches wide with dark letters reading "Tree Protection Area - Do Not Enter" or equivalent signage on a continuous, durable restraint.
- (5) All tree protection devices must remain in functioning condition until the Certificate of Occupancy is issued.

**Section 12. TREE DAMAGE**

Any tree, designated in the plan to be saved, which is damaged during construction or as a result of construction, as determined by the Inspector, shall be treated according to accepted National Arborist Association Standards, or replaced with a tree or trees equal to the unit value of the tree removed. However, any specimen tree damaged as described above shall be replaced with trees equal to two (2) times the unit value of the tree removed or damaged.

### **Section 13. EMERGENCIES**

In case of emergencies, such as hurricane, windstorm, flood, freeze or other disaster, the requirements of these regulations may be waived by the Inspector or other designated official, upon a finding that such waiver is necessary so that public or private work to restore order in the city will not be impeded.

### **Section 14. APPEAL**

Any person adversely affected by a decision of the Inspector in the enforcement or interpretation of any of the terms or provisions of this ordinance may appeal such decision to the City Council. Such appeal shall be taken by filing written notice thereof with the Zoning Director with ten(10 days after the decision of the Inspector or his designee.

### **Section 15. WITHHOLDING OF CERTIFICATE OF OCCUPANCY**

The Inspector may withhold the issuance of the required Certificate of Occupancy, or permits and inspections, for any development as required until the provisions of this Ordinance have been fully met.

### **Section 16. TREE REMOVAL AND CONSTRUCTION COMPANIES**

All provisions of this Ordinance shall apply to any person removing trees on behalf of any other person, including all tree removal companies, utility companies or persons in the business of removing trees or construction. It shall be unlawful for any person or company to remove or cause to be removed any tree, or undertake any work for which a development permit is required pursuant to this Ordinance, unless a valid permit thereof is in effect and is displayed in accordance with the provisions of Section 17. If any such work or removal is performed without the permit being displayed as required in Section 17, such removal or work shall constitute a violation of this Ordinance and shall subject the person or company violating this Ordinance to all penalties provided herein. However, utility companies may provide emergency work without formal approval; provided, however, that emergency actions are reported in writing to the Inspector within three (3) working days after completion of all emergency services. Further, the permit taken by any person, company or utility under this section may include defined areas of tree cutting and trimming under one permit.

All tree removal companies, utility companies or persons in the business of removing trees or construction shall remove from the site any trees, stumps, limbs or debris caused by activities allowed by the issuance of a permit under this Ordinance.



## **Section 17. DISPLAY OF PERMIT AND INSPECTIONS**

The applicant shall prominently display on the site the permit issued. Such permit shall be displayed continuously while trees are being removed or replaced or work done as authorized on the permit. As a condition for the issuance of a permit, the applicant shall agree in writing to entry onto his premises by representatives of the city as designated by the Inspector to inspect the permit and activities at any time, and such entry shall be lawful. Failure to allow such entry shall be unlawful and shall constitute failure to display the permit as required under this section.

## **Section 18. FEES**

Each new applicant requesting a permit shall pay a fee to be determined by the City Council. <sup>2</sup>*Fee amount at this time is \$25.00 for plan review.*

No fees shall be charged on any application filed solely within a public right-of-way.

No fee shall be charged on any application where the Inspector determines that the tree(s) meet the exception criteria contained in Section 10.

## **Section 19. PENALTY**

Any person, firm or corporation violating any provisions of this article shall be punished as described in Section 1-8 of the Code of the City of Dahlonega, and in addition thereto may be enjoined from continuing the violation. Each tree cut, damaged or poisoned shall constitute a separate offense.

## **Section 20. TREE COMMITTEE**

A tree committee consisting of five members shall be appointed by the Dahlonega City Council. The committee will elect a chairperson from its membership.

It will be the responsibility of the committee to advise the Council concerning the enforcement of the tree ordinance and to advise the Council concerning the effectiveness of the tree ordinance.

The tree committee may recommend amendments to the Council as they see fit.

The tree committee shall hear any requests for a variance to the ordinance from any and all parties. The tree committee will not have the authority to grant variances.

The tree committee will report to the City Council <sup>3</sup>*on an as needed basis* concerning their activities and the activities of the City Official charged with permitting based on the tree ordinance. This report to the Council will be in writing.

<sup>2</sup>amended 10/4/04  
<sup>3</sup>amended 10/4/04

## THE DAHLONEGA TREE ORDINANCE - APPENDIX A

### DEFINITIONS

- (1) Inspector - The Zoning Director or his/her designee responsible for administering the provisions of this Ordinance.
- (2) Basal Area - The cross-sectional area of a tree trunk at diameter breast height (dbh) expressed herein in terms of "units" per acre.
- (3) Buffer - A landscaped open space area and/or screen for buffering incompatible uses, as defined in Section 680 of the Zoning Ordinance.
- (4) Buildable Area - The portion of a lot which is not located within any minimum required yard, landscape strip/area or buffer; that portion of a lot wherein a building or structure may be located.
- (5) Caliper - A forest standard of tree trunk measurement for understory or replacement trees. Caliper of the trunk shall be taken at six (6) inches above the ground for trees up to and including four (4) inch caliper size, and twelve (12) inches above the ground for trees larger than four (4) inch caliper.
- (6) Critical Root Zone (CRZ) - The minimum area beneath a tree which must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The CRZ will typically be represented by a concentric circle centering on the tree's trunk with a radius equal in feet to one and one-half (1.5) times the number of inches of the trunk diameter. EXAMPLE: The CRZ radius of a twenty (20) inch diameter tree is thirty (30) feet.
- (7) dbh (Diameter breast height) - The standard measure of tree size for those trees existing on a site that are at least four (4) inch caliper at a height of four and one-half (4.5) feet above the ground. If a tree splits into multiple trunks below four and one-half (4.5) feet, then the trunk is measured at its most narrow point beneath the split.
- (8) Density Factor - A unit of measure used to prescribe the calculated tree coverage on a site. Site density factor for areas within the corporate limits of the City of Dahlonega is twenty (20) units per acre. (See Density Factor Analysis, The Dahlonega Tree Ordinance Appendix A).
- (9) Development Activity - Any alteration of the natural environment which requires the approval of a development or site plan and issuance of a development permit. Development Activity shall also include the "thinning" or removal of trees from any undeveloped land, including that carried out in conjunction with a forest management program, and the removal of trees incidental to the development of land or to the marketing of land for development.
- (10) Development Permit - An official authorization issued by the Zoning Director in accord with this Ordinance.

- (11) Drip Line - An imaginary perpendicular surface of a tree's branch tips down to the ground. The circular area of land surrounding the tree from the trunk to the outermost branches. This area is not to be confused with Critical Root Zone.
- (12) Hardwood Tree .Any leaf bearing (not needle-bearing) tree that is not coniferous (cone bearing). This definition is based on the colloquialism, and does not reflect any true qualities of the tree.
- (13) Overstory Trees .Those trees that compose the top layer or canopy of vegetation and will generally reach a mature height of greater than forty (40) feet.
- (14) Revegetation .The replacement of trees and landscape materials into the minimum required landscape areas, as determined by the Zoning Ordinance, conditions of zoning approval, or the provisions of this Ordinance.
- (15) Softwood Trees .Any coniferous (cone bearing) tree, such as pine, fir, hemlock, cedar, etc. This definition is based on the colloquialism, and does not necessarily reflect any true qualities of the tree.
- (16) Specimen Tree or Stand - Any tree or collective group of trees which qualifies for special consideration for preservation due to size, type and condition. See Section 4 for general criteria regarding specimen trees or stands.
- (17) Tree - Any self-supporting, woody perennial plant usually having a single trunk diameter of three (3) inches or more which normally attains a mature height of a minimum of fifteen (15) feet.
- (18) Tree Bank - An account, maintained by the Finance Department of the City of Dahlonega, of funds contributed from developers as a form of alternative compliance to The Dahlonega Tree Ordinance. Funds from the Tree Bank are to be used solely for the purchase and planting of trees on public sites within the City of Dahlonega as authorized by the Zoning Director.
- (19) Tree Removal Permit .A formal letter or permit issued by the Inspector allowing for the removal of said tree(s) on a property.
- (20) Tree Protection Zone - All lands that fall outside the buildable area of a parcel required to remain in open space, or all areas required as landscaping strips or buffers according to the Dahlonega Zoning Ordinance, conditions of zoning approval or provisions of this Ordinance,
- (21) Tree Area .An area designated for the purpose of meeting tree density requirements, saving natural trees, preserving the root system of natural trees and/or preserving normal buffers.
- (22) Tree Species Selection List .The recommended species of trees in The Dahlonega Tree Ordinance .Appendix B.
- (23) Understory Tree .Those trees that grow beneath the overstory, and will generally reach a mature height of under forty (40) feet.

## THE DAHLONEGA TREE ORDINANCE - APPENDIX B

### DENSITY FACTOR ANALYSIS

A basic condition of the Dahunega Tree Protection Requirements is that all applicable sites maintain a minimum tree density of twenty (20) units per acre. The term "unit" is an expression of basal area and is not synonymous with "tree".

The density requirement must be met whether or not a site had trees prior to development. The density may be achieved by counting existing trees to be preserved, planting new trees, or some combination of the two.

For density factor analysis, the following formula shall apply:

**SDF = EDF + RDF** Where:

**SDF** (Site Density Factor) The minimum tree density required to be maintained on a developed site (20 units per acre).

**EDF** (Existing Density Factor) Density of existing trees to be preserved on a site.

**RDF** (Replacement Density Factor) Density of new trees to be planted on a site.

### PROCEDURE FOR CALCULATING THE REQUIRED TREE REPLACEMENT:

Step 1. Calculate the Site Density Factor (SDF):

The SDF is calculated by multiplying the number of site acres by 20.

EXAMPLE: A 2.2 acre site has a SDF of  $2.2 \times 20 = 44$

Step 2. Calculate the Existing Density Factor (EDF):

The Existing Density Factor, EDF, is determined by converting the diameter breast height (dbh) of individual trees to density factor units as shown in the following Table 1. These units are totaled to determine the EDF for the site.

EXAMPLE: A total of 8 trees will remain on the 2.2 acre site in Step 1. These trees include:

- 3 .14" pines
- 3 .18" oaks
- .20" hickory
- .30" oak

When converted to density factory units using Table 1, we arrive at the following values:

<u>dbh</u>	<u>UNITS X NUMBER OF TREES</u>		
14"	3.1	x	3 = 9.3
18"	3.8	x	3 = 11.4
20"	4.2	x	1 = 4.2
30"	6.9	x	1 = 6.9

31.8 units total. The total units, 31.8, is the EDF (Existing Density Factor).

TABLE 1. CONVERTING EXISTING TREE DIAMETERS TO DENSITY UNITS

<u>DBH</u>	<u>UNITS</u>	<u>DBH</u>	<u>UNITS</u>	<u>DBH</u>	<u>UNITS</u>
2-4	2.0	22	4.6	37	10.5
5-7	2.3	23	4.9	38	10.9
8-9	2.5	24	5.1	39	11.3
10	2.6	25	5.4	40	11.7
11	2.7	26	5.7	41	12.2
12	2.8	27	6.0	42	12.6
13	2.9	28	6.3	43	13.1
14	3.1	29	6.6	44	13.6
15	3.2	30	6.9	45	14.0
16	3.4	31	8.2	46	14.5
17	3.6	32	8.6	47	15.0
18	3.8	33	8.9	48	15.6
19	4.0	34	9.3	49	16.1
20	4.2	35	9.7	50	16.6
21	4.4	36	10.1	51+	20

Step 3. Calculate the Replacement Density Factor (RDF):

Replacement Density Factor (RDF) is determined by subtracting the EDF from the SDF.

EXAMPLE: 44 (SDF) - 31.8 (EDF) = 12.2

This means that 12.2 tree units are required as replacements for the total site to meet the requirement of 20 units per acre.

The Density Factor credit for each caliper size of replacement (new) trees is shown in the following Table 2.

TABLE 2. CONVERTING REPLACEMENT TREES TO DENSITY UNITS

<u>CALIPER</u>	<u>UNITS</u>	<u>CALIPER</u>	<u>UNITS</u>
1"	.4	8"	2.3
2"	.8	9"	2.5
3"	1.6	10"	2.7
4"	1.7	11"	2.9
5"	1.9	12"	3.1
6"	2.0	13"	3.3
7"	2.2	14+"	3.5

A seven (7) gallon container grown pine tree is given replacement credit of .3 units.

For tree relocation, replacement units will be granted to trees relocated on site. Tree relocation is subject to Inspector approval.

**Table 3 Circumference vs. dbh**

<u>Dbh (in)</u>	<u>Circumference (in)</u>
2	6.29
3	9.43
4	12.57
5	15.71
6	18.86
7	22.00
8	25.14
9	28.29
10	31.43
11	34.57
12	37.71
13	40.86
14	44.00
15	47.14
16	50.29
17	43.43
18	56.57
19	59.71
20	62.86
21	66.00
22	69.14
23	72.29
24	75.43
25	78.57
26	81.71
27	84.86
28	88.00
29	91.14
30	94.29
31	97.43
32	100.57

## THE DAHLONEGA TREE ORDINANCE - Appendix C

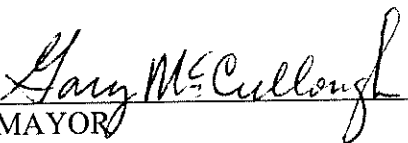
### TREE SPECIES SELECTION LIST

#### Overstory Trees

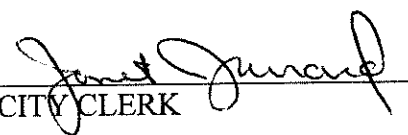
1. <i>Acer floridanum</i>	Florida Maple or Southern Sugar Maple
2. <i>Acerrubrum</i>	Red Maple
3. <i>Acersaccharum</i>	Sugar Maple
4. <i>Betula nigra</i>	River Birch
5. <i>Carya species</i>	Hickories, pecans
6. <i>Castanea mollissima</i>	Chinese Chestnut
7. <i>Celtis occidentalis</i>	Hackberry
8. <i>Cercidiphyuum japonicum</i>	Katsura Tree
9. <i>Cladrastis lutea</i>	American Yellowwood
10. <i>Cunninghamia lanceolata</i>	Common Chinafir
11. <i>Fagus grandifolia</i>	American Beech
12. <i>Fraxinus Americana</i>	White Ash
13. <i>Fraxinum Pennsylvania</i>	Green Ash
14. <i>Ginkgo biloba</i>	Ginkgo
15. <i>Halesia Carolina</i>	Carolina Silverbell
16. <i>Juniperus virginiana</i>	Eastern Red Cedar
17. <i>Liquidambar styraciflua</i>	Sweetgum
18. <i>Liriodendron tulipifera</i>	Yellow Poplar, Tulip Poplar
19. <i>Magnolia grandiflora</i>	Southern Magnolia
20. <i>Metasequoia glyptostroboides</i>	Dawn Redwood
21. <i>Myssa sylvatica</i>	Black Gum, Black Tupelo
22. <i>Pinus elliottii</i>	Slash Pine
23. <i>Pinus strobes</i>	White Pine
24. <i>Pinua taeda</i>	Loblolly Pine
25. <i>Pinus virginiana</i>	Virginia Pine
26. <i>Platanus occidentalis</i>	Sycamore
27. <i>Quercus species</i>	Oaks, except Live Oaks
28. <i>Robinia pseudoacacia</i>	Black Locust
29. <i>Sophora japonica</i>	Japanese Pagodatree
30. <i>Taxodium disticum</i>	Bald Cypress
31. <i>Ulmus parvifolia</i>	True Chinese Elm
32. <i>Zelkova serrata</i>	Japanese Zelkova

All other ordinances and parts of ordinances in conflict herewith are hereby repealed.

ORDAINED THIS 4<sup>th</sup> DAY OF OCTOBER, 2004 BY THE MAYOR AND COUNCIL  
OF THE CITY OF DAHLONEGA.

  
MAYOR

ATTEST:

  
CITY CLERK



AMENDMENT 2  
ORDINANCE 2001-8

**AN ORDINANCE TO AMEND ORDINANCE 2001-8 BY ADDING AN ADDITIONAL  
APPENDIX**

Be it ordained by the governing authority of the City of Dahlonega that the attached Appendix be incorporated into and thereby be made a part of the Appendices to said ordinance.

It is so ordained this 4<sup>th</sup> day of Sept, 2007.

Gary McCullough  
Mayor

Janet Ingle  
Attest: City Clerk

## THE DAHLONEGA TREE ORDINANCE – Appendix D

### TREE SPECIES SELECTION LIST

#### Understory Trees

1. <i>Acer buergeranum</i>	Trident Maple
2. <i>Acer ginnala</i>	Amer Maple
3. <i>Acer griseum</i>	Paperbark Maple
4. <i>Acer leucoderme</i>	Chalkbark Maple
5. <i>Acer palmatum</i>	Japanese Maple
6. <i>Amelanchier</i> spp.	Serviceberry
7. <i>Cercis canadensis</i>	Eastern Redbud
8. <i>Chionanthus retusus</i>	Chinese Fringetree
9. <i>Cornus florida</i>	Flowering Dogwood
10. <i>Cornus kousa</i>	Kousa Dogwood
11. <i>Cotinus obovatus</i>	Smoketree
12. <i>Crateagus viridis</i>	'Winter King' Hawthorn
13. <i>Halesia carolina</i>	Carolina Silverbell
14. <i>Ilex</i> spp.	Hollies (upright growing varieties)
15. <i>Lagerstroemia</i> spp.	Crapemyrtle
16. <i>Magnolia grandiflora</i>	'Little Gem' Magnolia
17. <i>Magnolia x soulangiana</i>	Saucer Magnolia
18. <i>Magnolia stellata</i>	Star Magnolia
19. <i>Malus</i> spp.	Flowering Crabapple
20. <i>Ostrya virginiana</i>	American Hophornbeam
22. <i>Pistacia chinensis</i>	Chinese Pistache
23. <i>Prunus caroliniana</i>	Cherry-Laurel
24. <i>Prunus cerasifera</i>	Cherry Plum
25. <i>Prunus serrulata</i>	Japanese Flowering Cherry
26. <i>Prunus</i> x spp.	Hybrid Cherries
27. <i>Pyrus calleryana</i>	'Aristocrat' Callery Pear
28. <i>Styrax japonicus</i>	Japanese Snowbell
29. <i>Viburnum sieboldii</i>	Siebold Viburnum
30. <i>Vitex agnus-castus</i>	Chastetree