

**CITY OF GAINESVILLE
TREE ADVISORY BOARD**

**Proposed Changes (shown as red text) to the Land Development Code to
Assure Public Safety and Preservation and Renewal of the Urban Forest**

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Background:

Gainesville's 2000 Comprehensive Plans Objective:

“The total percentage of tree canopy coverage within the City shall not fall below the 1994 percentage of tree canopy, as estimated by the City Manager or designee, except in the event of natural catastrophe.”

Data: 1994 Tree Canopy Analysis: 60% Coverage

2005 Preliminary Canopy Analysis by UF: 50.6%

Duties listed in the authorizing ordinance for the Tree Advisory Board

To act as the technical information collector/exchange forum on tree issues where citizens need coordination of information from varied sources.

To clarify tree regulations that exist in the city's codes and ordinances and make them known to city residents.

To act on referrals from the **City Commission**.

To guide the creation of a master tree plan for the city.

To assist in the development of the goals and objectives for the city's comprehensive plan with respect to trees.

To advise all departments of the city on tree issues.

To communicate general tree information and develop tree projects that would benefit the community.

To serve on the tree board of appeals (three of the five members will be recommended by the tree advisory board for appointment by the **City Commission**).

Goals of proposed changes:

Provide real protection for Heritage trees in all zoning classes (including giving the City Commission's Advisory Boards authority to recommend financial mitigation under very specific circumstances for very valuable trees).

Create sufficient space for young shade trees so that they can grow to maturity without disrupting buildings, sidewalks or streets.

Clarify street buffer shade trees, Gainesville Regional Utilities line separation requirements, and Public Works clear zone safety requirements are all equally important, so future development allows sufficient space for all three.

Diminish Gainesville's vulnerability to Southern Pine Beetle epidemics through post-development spacing of pines at 25' which diminishes the insects' capacity for rapid and relentless population increase.

Bring required tree protection, planting, and invasive exotic control efforts into alignment with the practices that yield the best results based on information from scientific research.

Update the Gainesville Approved Tree list first assembled by the Board in 1976 and revised in 2000.

Clarify the roll of the Tree Advisory Board and the Tree Appeals Board, especially with respect to potential financial mitigation decisions that might result from the proposed Code changes

Definitions changed (red text reflects changes)

Land Development Code Article II: Sec 30-23 Definitions.

City Arborist means the person designated by the City Manager as having responsibility for the trees in Gainesville's urban forest.

Council of Tree and Landscape Appraisers refers to a group of professional societies specializing in arboriculture, horticulture and nursery practices that have established amethodology for appraising the financial value of trees and landscaping. City policy adopts their "trunk formula method" for appraising value rather than appraisal based on the tree's contribution to the value of the real property.

Dripline means the outer perimeter of the crown of a plant as projected vertically to the ground.

Conservation Easement means a legally enforceable land preservation agreement between a landowner and a qualified land protection organization or a government unit. The conservation easement will restrict the land from real estate development as specified in the easement in perpetuity, except for improvements that enhance the natural conservation values of or, if appropriate, public access to the property. The Conservation Easement shall become part of the chain of title for the property.

Dual Conservation Easement means a legally enforceable land preservation agreement between a landowner and both a qualified land protection organizations and a government unit. The conservation easement will restrict the land from real estate development in perpetuity, except for improvements that enhance the natural conservation values of the property. The Conservation Easement shall become part of the chain of title for the property.

Qualified Land Protection Organizations have legal standing as a conservation agency and are regulated under Internal Revenue Code Title 26, Subtitle A, Chapter 1, Subchapter B, Part VI, Section 170, Chairtable , etc., contributions and gifts. They may be local government, local land trusts, state agencies dedicated to natural resource

conservation, or other not-for-profit organizations that exist for the purpose of protecting undeveloped land. The City Commission of Gainesville shall have the final say on which agencies meet the qualification for purposes of holding conservation easements in Gainesville.

Environmental Coordinator means the person designated by the City Manager as having responsibility for protecting the natural areas and natural resources in Gainesville during the development process.

Establishment refers to the 3-year period of aftercare provided to a young tree after planting. After three years, a strong trunk, roots, branches and leaves denote establishment.

High Quality Heritage Trees are larger than 20" in diameter at 4.5' above ground and of the species identified in the definition of *Trees*, *High Quality* in this section.

Improvement means any ~~manmade~~, immovable item which becomes part of, is placed upon, or is affixed to real estate. *Trees planted as part of development projects approved by the City Commission or the City Manager or designee are included in this definition.*

Improvements means physical changes made to raw land and structures placed on or under the land surface, in order to make the land more usable. Typical improvements would be clearing and grubbing, grading, street pavements, curb and gutter, drainage ditches, street trees, storm and sanitary sewers, streetlights, fire hydrants, street name signs, permanent control points (PCP's), *required shade trees*, etc.

Landscape materials means living trees, shrubs, vines, grasses, ground covers and other plants, sand, wood mulch, and other nonliving, durable materials commonly used in landscaping. *The landscape materials used within tree protection zones as described in 30-255 should not require grade change or excavation to depths greater than 4 inches. Landscape materials should be porous for rain penetration and should not require soil compaction as defined below. Any structure (including water features) that disturbs the rootzone deeper than 4" does not meet the definition of landscape materials .*

Qualitative Tree Survey see Tree Survey, Qualitative.

Regulated Trees are defined in Article VIII , Sec. 30-254.

Rootzone media refers to the soil in areas for required landscaping where soil structure and texture must accommodate healthy root growth. The basic components are uncompacted soil (bulk density less than 1.50 g/cc in loam, 1.70 g/cc sand, or 1.40 g/cc clay soil), devoid of seeds of invasive exotic species, of pH 5.5 to 6.5; composted leaf mold or peat moss; and well-graded, medium angular sand (0.50 to 0.25 mm). The natural topsoil of the site qualifies if the above qualities pertain.

Soil Bulk Density is a measure of soil compaction expressed as the mass of soil per unit of volume. Acceptable bulk density of soil within the dripline of the canopy of preserved trees post-construction should not be greater than 1.30 g/cc in loam, 1.50 g/cc sand, or 1.20 g/cc clay soil.

Soil Compaction is compression of the soil resulting in a reduction of the total pore space, especially the macropores (air-filled spaces between soil particles) and micropores (which fill with water).

Tree means any living self-supporting perennial plant whose one main stem attains at least a diameter of three inches (nine inches in circumference) at 4 1/2 feet above ground level and a height of 15 feet at maturity.

Tree Appraised Value is the financial value of a tree based on the basal area of the trunk and equals the cost of establishing sufficient nursery-grown trees to equal the basal area of the tree to be mitigated, as modified by condition, species value and location, factors defined by the *Council of Tree and Landscape Appraisers*. The purchase price of the replacement trees is multiplied by a factor of 2.5 to cover planting and aftercare. The appraised value is not based on the contribution of the tree to the value of the real estate, but rather on the contribution of trees to the common good in terms of carbon sequestration, oxygen, stormwater attenuation, energy conservation, wildlife habitat, and the overall aesthetic impression of the community.

Tree grouping or *major tree grouping* means an assemblage of closely spaced trees with the following characteristics:

- (1) The perimeter of the assemblage encompasses at least 400 square feet; and
- (2) The coverage of the assemblage tree canopy is at least 50 percent.

Trees, High Quality refers of the following species: Live Oak (*Quercus virginiana*), Sand Live Oak (*Q. geminata*), Bluff Oak (*Q. austrina*), Basket Oak (*Q. michauxii*), Southern Red Oak (*Q. falcata*), Southern Magnolia (*Magnolia grandiflora*), Florida Maple (*Acer barbatum*), Longleaf Pine (*Pinus palustris*), Spruce Pine (*P. glabra*), Cedar Elm (*Ulmus crassifolia*), Winged Elm (*U. alata*), Florida Elm (*U. floridana*), Bald Cypress (*Taxodium distichum*), Pond Cypress (*T. ascendens*), Tupelo (*Nyssa sylvatica*), Mockernut Hickory (*Carya tomentosa*), Pignut Hickory (*C. glabra*), Pecan (*C. illinoensis*), Persimmon (*Diospyros virginiana*) Basswood (*Tilia Americana*), Tulip Poplar (*Liriodendron tulipifera*), White Ash (*Fraxinus Americana*), Green Ash (*F. pensylvanica*) and Holly species (Yaupon, Dahoon, and American) (*Ilex vomitoria*, *I. cassine*, and *I. opaca*).

Tree lawn refers to the area behind the back-of-curb or adjacent to the pavement edge intended for shade trees along city streets.

Tree wells consist of a concrete box below ground with a tree grate covering, filled with rootzone media, into which a tree is planted.

Tree Root Plate refers to the below-ground area adjacent to the trunk where the major buttress roots and support roots occur, generally a circular area with a radius of four (4) times the diameter of the tree trunk at ground level. For example, a 2' diameter trunk has a root plate radius of 8' outside the trunk on all sides.

Tree Survey is the map required with all development proposals indicating the geographic location of regulated trees with their scientific names (both genus and species).

Tree Survey, Qualitative is an alternative to the required Tree Survey which limits its scope to the surveyed locations of all Heritage Trees, all regulated trees of high quality species, and significant trees of other species identified by the City Arborist, Environmental Coordinator, or designee. The report shall also cover matters identified as significant relative to the urban forest based on site conditions.

Trunk Formula Method for Appraising Trees. See *Tree Appraised Value*.

Understory trees means trees which average less than 40 feet in height at maturity, whether or not the tree is found in an understory habitat.

Urban Forest refers to the sum total of all vegetation growing within the city limits, whether on public or private property.

Article VII Development Review Process

Division 1. Development Plan Review Process.

Sec. 30-160 Development Plan Review – Submittal Requirements

(a) *Application.*

(b) (1)

a. Concept review. Concept review is encouraged for all intermediate and major development but is not required. **Concept review is required for projects featuring solar electrical generation because of their potential impact on the urban forest.** This concept review is intended solely to alert an applicant to problems with, or objections to, a particular proposed development. During concept review, no comments made by the appropriate reviewing board or staff should be deemed as either an approval or denial of the proposed project. Concept plans should address conformity with the comprehensive plan, zoning, environment concerns and concurrency.

b. When an application for concept review is submitted, each concept plan shall include the following unless the **City Manager** or designee determines that the requirements are not applicable:

1. General description of the project including property boundaries, illustrating the general location of all proposed use(s). Residential projects should include the total number of units proposed.
2. Proposed access to the property (street network) or number of access points requested.

3. A scaled drawing of the site showing major geographical features: creeks, ditches, wetlands, lakes, and other prominent topographic features (USGS or regional planning council maps and tax maps may be used).

4. Location of major tree groupings and Heritage Trees as defined in section 30-258 shall be outlined on aerial tax maps or scaled drawings. Projects that will use solar collectors shall address the environmental impact of the proposed solar infrastructure in terms of trees not preserved or trees not planted because of the shade they will cast at maturity. This means an increase in unshaded hardscape, the major component of the urban heat island effect in causing global warming. The concept proposal should communicate both how the development will mitigate the additional urban heat load and what areas of the property proposed for development will be set aside as a place for mitigation trees.

(d) Preliminary development plan. Each preliminary development plan shall include the following:

(4) Tree survey showing the location, diameter, genus and species of all trees larger than 8' except slash and loblolly pines, which must be surveyed **only** if larger than ~~12~~ **20** inches. Measurements are made at 4.5 feet from base of trunk. An alternative to the required survey of every regulated tree is **the Qualitative Tree Survey**, executed by an Arborist with current credentials from the International Society of Arboriculture **or by a licensed Landscape Architect**. This report must show the surveyed location, diameter, genus and species of all Heritage trees, **all regulated trees of high quality shade tree species**, other significant trees worthy of protection, and existing trees planted to comply with earlier approved development plans. **On-site meetings with the City Arborist, Environmental Coordinator or designee will confirm which trees shall be included in the survey and to confirm that the report meets Code requirements.**

Division 2. Subdivisions and Street Vacation (continuing Article VII, Development Review Process)

Sec. 30-180. Purpose and intent.

This article is intended to provide direction and standards for the division of land in a manner that would facilitate the coordination of land development in accordance with orderly physical patterns; to encourage development of an economically stable and healthful community; to ensure proper identification, monumentation and recording of real estate boundaries; to ensure that adequate and necessary physical improvements of lasting quality will be installed in subdivisions by the subdividers and that taxpayers will not bear this cost; to provide for safe and convenient vehicle, bicycle, pedestrian and transit access; to provide an efficient, adequate and economic supply of utilities and services to new land developments; to prevent periodic or seasonal flooding and to protect groundwater and surface water quality through provision of protective flood control and stormwater management facilities; to help conserve and protect physical and scenic resources; **to sustain and replenish the urban forest**; to promote the public health, safety, comfort, convenience and general welfare; and to implement the city's comprehensive plan.

Sec. 30-182. Pre-application conference.

(a) *Required.* Prior to the preparation of a design plat, the subdivider shall seek the advice of the city staff to become familiar with the subdivision requirements, city policies and provisions of the comprehensive plan. The subdivider is encouraged to bring plans and data specified in subsection (c) so as to clearly show existing conditions of the site and its vicinity and the proposed layout of the subdivision...

(b) *Prohibited or discouraged designs or improvements...*

(c) *Concept review (Sketch drawing).*

(1) The applicant may submit an application for the optional concept subdivision review. The concept review for subdivision of land shall be done by city staff. A sketch shall be submitted by the subdivider for the concept review.

(2) The sketch shall contain the following data:

- a. Approximate tract boundaries;
- b. Approximate location with respect to section lines;
- c. Streets on and adjacent to the tract;
- d. Proposed general street layout;
- e. Environmental features including but not limited to significant topographical and physical features including creeks, uplands, lakes and wetlands, FEMA and community determined flood plains, and heritage trees;
- f. Generalized existing vegetation, including areas of native forest where the land shows no evidence of prior use for agriculture;
- g. Proposed general lot layout and the total number of lots;
- h. Existing buildings on the property;
- i. Land use and zoning designation of the subject property; and
- j. Generalized stormwater management plan.

(3) As far as may be practicable on the basis of a sketch, the reviewer will, without prejudice to the city, advise the subdivider of the extent to which the proposed subdivision conforms to the standards of this chapter and other applicable ordinances or statutes, and will discuss possible plat modifications necessary to secure compliance and whether a traffic study will be required.

The review schedule for concept subdivision plans shall follow the same submittal and review schedule for development plans.

Sec 30-183 Design plat requirements and approval.

(e) *Specifications.*

(1) The design plat shall be drawn clearly and legibly...prepared by a land surveyor, signed and sealed before review, and shall contain the following information:

- a. Proposed name of the subdivision...
- b. Name and registration number of surveyor;
- c. Date of survey approval...h
- i. The front building setback line for each lot; and
- j. An inscription stating "NOT FOR FINAL RECORDING."

k. Sidewalks, on all streets, on both sides, and at least five feet wide. Sidewalks not required on cul-de-sac or dead end or loop less than 100 feet long. Sidewalk required on at least one side of street on cul-de-sac or dead end or loop from 100 to 250 feet long, and for a project in which the closest lots to a connecting street on a cul-de-sac or dead end are at least 1,000 feet from the street it stems from. Sidewalks on both sides on cul-de-sac or dead end or loop greater than 250 feet long.

l. Tree lawns shall be at least 9' wide and provide high quality shade street trees from the Gainesville Tree List every 50' on average on both sides of every street within the subdivision and on the subdivision side of existing adjacent roads. Each street tree shall have at least 180 sq ft at the surface and to a depth of 3' with no pavement or utility infrastructure within the area. No required street tree should be planted within 10' of a building footer or within 3' of paved infrastructure. The total number of street trees shall equal an average of one for every 50' of right-of-way. Trees shall be no closer than 25' or farther apart than 60'.

m. All Heritage Trees and an indication whether they will be preserved or destroyed.

n. All trees to be preserved with tree barricades as stipulated in Sec. 30-255.

(2) The design plat shall also contain or be accompanied by:

a. The name...

h. The location of all major tree groupings and identification of all heritage trees by genus and species on the subdivision tract, a designation of which tree groupings and heritage trees are proposed to be removed, and identification by genus and species of all regulated trees as defined in section 30-254 located in or within 15 feet of any proposed right-of-way or utility improvement. A landscaping plan showing trees and shrubs to meet Code requirements for street trees, buffers, and landscaping stormwater management facilities per Sec. 30-251 (2) b.

i. Stormwater management plan in accordance with section 30-270 and the public works design manual; ...

m. A general location map showing the relationship of the subdivision tract to such external facilities as streets, residential area, commercial facilities and recreation/open space areas, and greenways, within one mile of the tract.

n. A plan for the elimination and future control of invasive exotic pest plants from the site, including agreement to have completed the initial removal prior to the issuance of the first certificate of occupancy.

(3) If the proposed subdivision contains land located within the floodplain...

(4) If the proposed subdivision contains land located within the surface water, wetlands, or uplands district, the subdivider shall be required to submit the following additional information for those areas designated:

a. A vegetation overlay at the same scale as the design plat showing special protection species of plants and animals.

b. A design plat showing buffer distances between areas to be developed and designated surface water or upland environmental features.

c. Square footage and percent of total subdivision tract to consist of impervious surface.

d. A description of strategies to protect or restore environmental features and special protection species on the subdivision tract **including a plan that assures the restoration or preservation of same.**

e. Projected on-site and off-site water quality impacts to Outstanding Florida Waters, OFW, which may result from the proposed subdivision.

(f) *Officials' examination.*

(1) Prints of the design plat shall be referred by the department of community development to the technical review committee and other applicable departments and agencies for review and findings. The officials involved shall report their findings and recommendations to the department of community development.

(2) The director of public works or designee shall examine and check the design plat to determine if the application conforms to criteria for general engineering, traffic stormwater management, flood plains and maintenance easement requirements.

(3) The general manager for utilities or designee shall examine and check the design plat for needed utility easements.

(4) The **Department of Planning and Development Services** shall, at the **Development Review Board** and **City Commission** hearings on the design plat, report the recommendations of the several agencies above-mentioned and county, state and federal agencies, together with an analysis of the conformance and nonconformance of the design plat to the provisions of this chapter and other applicable requirements.

(5) **The Department of Parks, Recreation and Cultural Affairs shall examine and check the design plat for the provisions for required landscaping, including street trees, buffer plantings and trees in stormwater management areas, as well as for protection of environmental features and special protection species and elimination and control of invasive exotic pest plants.**

(g) *Review of design plan.* The **Development Review Board** review shall include consideration of staff findings and evidence and testimony from the general public. The board shall determine if the proposed subdivision is in conformity with the general goals and objectives of the city with respect to the officially adopted comprehensive plan; the city's official roadway map; existing zoning requirements, including amendments thereto; policies and plans established by the city with respect to neighborhoods, lake levels, water supply, protecting environmental features, **maintenance of the tree canopy levels identified in the comprehensive plan, control of invasive exotic pest plants**, provision for emergency access, consideration of pedestrian, bicycle and transit access and greenway connections, waste disposal and other essential utilities; the overall stormwater management plan **including landscaping of stormwater management basins**; and policies for development in any special improvement and redevelopment districts. Particular attention shall be given to the arrangement, location and width of streets, **the provision of high quality shade trees along the streets**, their relation to the topography of the land, water supply, sewage disposal, stormwater management, lot sizes and arrangement and the present or future development of abutting property.

(h) **Development Review Board approval.**

...

(i) **City Commission review.**

(1) Within 60 days ...

(2) The **City Commission** shall review the recommended design plat and consider findings made by the **Development Review Board** and/or staff. The **City Commission** shall determine if the proposed subdivision is in conformity with the general goals and objectives of the city with respect to the officially adopted comprehensive plan; existing zoning requirements, including all amendments thereto; policies and plans established by the city with respect to neighborhoods, lake levels, water supply, protecting environmental features, **sustaining the urban forest**, provision for emergency access, consideration of pedestrian, bicycle, vehicle and transit access and greenway connections, waste disposal and other essential utilities; the overall stormwater management plan; and policies for development in any special improvement and redevelopment districts. Particular attention shall be given to the arrangement, location, function and width of streets, their consistency with the goal of developing a multimodal transportation network **and providing sufficient space for street trees both above- and below ground**, their interaction with the overall transportation system and relation to the topography of the land, water supply, sewage disposal, stormwater management, lot sizes and arrangement and the present or future development of abutting property.

(j) **City Commission approval.**

(1) The commission may approve the design plat as presented if found to be in compliance, require modifications, or disapprove the design plat if it is not in compliance. If disapproved, the design plat must be redesigned before resubmission for approval.

(2) Effect of approval....

Sec. 30-184. Preparation, submission and review of construction plans.

(a) *Preparation.* Following the **City Commission** approval of the design plat,...

(b) *Submission and review.* The subdivider shall submit a minimum of one set of prints of the complete construction plans to the director of public works and one set of prints to Gainesville Regional Utilities **and to the City Arborist one copy of the landscape plan showing proposed street trees in tree lawns at least 9' wide, utilities, stormwater facilities with required landscaping, and trees to be preserved on the site. All High Quality Heritage trees or trees identified on the Qualitative Tree Survey must be shown on the construction plans, which shall also indicate whether or not they will be preserved or mitigated. If preserved, they must be shown with tree protection in accordance with Sec. 30-255. If mitigated, the terms must be in accordance with Sec. 30-258.**

(c) *Required maps and drawings.* Plans for the proposed improvements and a boundary survey shall be required to be approved by the **Public Works Department, and Gainesville Regional Utilities and the City Arborist** prior to approval of the final plat by the **City Commission**. The final plat shall be recorded in the public records unless the subdivider has complied in all respects with subsection 30-186(e). The improvement plans shall show the proposed locations, sizes, types, grades and general design features of each facility, and shall be based upon reliable field data. These drawings shall include, at a

minimum, a topographic map, stormwater management plan, **landscape plan**, and construction drawings showing street profiles, street cross sections and water supply, sewer and stormwater management as specified by the public works department and GRU, **and all Heritage Trees identified for preservation or destruction.**

Sec. 30-185. Procedure for approval of final plat.

Sec. 30-186. Security for construction and maintenance of public improvements.

(a) *Bond required.* ... **[Definition of improvement(s) changed to include street trees]**

Sec. 30-187. Design standards.

- (a) *Flood hazards*
- (b) *Lots and blocks.*
- (c) *Streets.*

(1) The arrangement, character, extent, width, grade and location of all streets shall conform to the comprehensive plan, particularly any neighborhood elements, now in existence or as may hereafter be adopted, and shall be considered in their relation to existing and planned streets, to topographical conditions, **to the provision of wide tree lawns and shaded streets**, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets.

...

(g) ~~*Reserved.*~~ **Street trees from the high quality shade category identified the Gainesville Approved Tree List shall be planted in tree lawns 9' wide or wider at the sides of street. An average of one tree for every 50' of street edge along both sides of every street within the subdivision and along the subdivision side of any abutting street. Street trees shall be no closer together than 25' nor farther apart than 60'. At least 180 sq ft of surface to a depth of 3' shall be provided for each street tree. The soil in this area shall meet the requirements of rootzone media. No utility or paved infrastructure shall intrude within the 180 sq ft area.**

...

(p) *Utilities easements.* When they are necessary to serve the subdivision, utilities easements shall be provided, with a minimum width of 15 feet, located along lot lines. **Their locations shall not interfere with the required space devoted to street trees as identified in (g) above.** Additional width may be required for sewer or stormwater management easements. Side lot line easements may be decreased to ten feet in width when serving a single electric, cable TV, gas or telephone utility. Rear lot line easements shall be discouraged.

(t) *Stormwater facilities.*

(1) Easements for maintenance access shall be granted to the city along drainage basins and along all storm sewers. In some circumstances, additional easements may be required by the **City Manager** or designee for maintenance access only.

(2) The design of stormwater facilities shall consider the ease of maintenance over the life of the facility.

(3) Any appurtenances placed in the right-of-way or within any publicly dedicated drainage basin, such as fountains, landscaping, lighting features, and signs, shall be the sole responsibility of the homeowners association and shall only be installed

with express written approval of the **City Manager** or designee. A maintenance agreement shall be required prior to acceptance of the facility by the city.

(4) Trees selected from the **Gainesville Tree List** that are identified as appropriate for stormwater basins shall be planted to meet the requirements identified in **Sec. 30-251 (2) b.**

30-188 – Required improvements.

(c) *Street specifications.* Streets shall be designed in accordance with the following:

(1) Standards contained in the design manual that specify dimensions and construction standards for subgrade, pavement base, wearing surface and minimum pavement width for minor local streets, major local streets, minor local collectors, major local collectors, minor arterials, and major arterials; and

(2) Guidelines that address curb and gutter roadways, noncurb and gutter roadways, roadway widths for on-street parking, and the location of sidewalks.

(3) Trees from the **Gainesville Approved Tree List** high quality shade category shall be planted to provide street shade. The minimum surface area allotted to each tree should be 180 sq ft, with the minimum width no less than 9 ft. The depth of rootzone media beneath the 180 sq ft surface must be at least 3 feet. Street trees shall be planted no closer than 10 feet to any building or 3' to any pavement, wall or fence. No paving or utility services shall be included within the 180 sq ft. The average number of street trees shall be equal to the total right-of-way distance divided by 50', and planted no closer together than 25' nor more than 60' apart.

Division 4. Planted Development District (Continuing Article VII, Development Review Process)

30-211 Planned Development Districts.

(a) *Purpose.* It is the purpose of this district to provide a method for landowners or developers to submit unique proposals which are not provided for or allowed in the zoning districts otherwise established by this chapter. In particular, these provisions allow a mix of residential and nonresidential uses and/or unique design features which might otherwise not be allowed in the district, but they must conform to all aspects of the comprehensive plan. Rezoning for planned developments (PDs) will be an entirely voluntary procedure. **If projects featuring solar collectors for electrical generation seek dispensation from compliance with requirements for planting and preserving shade trees, then such projects should be proposed as “Planned Developments” that will achieve the permitted density through minimizing the intensity of the environmental impact through multi-story buildings .**

(b) *Objectives.* The PD provisions are intended to promote flexibility of design and integration of uses and structures, while at the same time retaining in the **City Commission** the absolute authority to establish limitations and regulations thereon for the benefit of the public health, welfare and safety. By encouraging flexibility in the proposals which may be considered, while at the same time retaining control in the **City**

Commission over the approval or disapproval of such proposals, the PD provisions are designed to:

- (1) Permit outstanding and innovative residential and nonresidential developments with a building orientation generally toward streets and sidewalks; provide for an integration of housing types and accommodation of changing lifestyles within neighborhoods; and provide for design which encourages internal and external convenient and comfortable travel by foot, bicycle, and transit through such strategies as narrow streets, modest setbacks, front porches, connected streets, multiple connections to nearby land uses, and mixed uses.
- (2) Provide flexibility to meet changing needs, technologies, economics and consumer preferences.
- (3) Preserve to the greatest extent possible, and utilize in a harmonious fashion, existing and outstanding landscape features, **High Quality Heritage Trees**, and scenic vistas.
- (4) Lower development and building costs by permitting smaller networks of utilities, a network of narrower streets, and the use of more economical development patterns and shared facilities.
- (5) Achieve overall coordinated building and facility relationships and infill development, and eliminate the negative impacts of unplanned and piecemeal development.
- (6) Enhance the combination and coordination of architectural styles, building forms and building relationships within the development.
- (7) Promote the use of traditional, quality-of-life design features, such as pedestrian scale, parking located to the side or rear of buildings, narrow streets, connected streets, terminated vistas, front porches, recessed garages, alleys, aligned building facades that face the street, **streets canopied by large shade trees, wide tree lawns, or in tree wells** and formal landscaping along streets and sidewalks.

Division 6. Traditional Neighborhood Development (TND) District. (Continuing Article VII, Development Review Process)

Sec. 30-241 General development criteria

(b) Streets and alleys.

(15) If the parallel parking lane is provided on only one side of shopfront use lots, rowhouse use lots, or workplace use lots, there shall be a planting strip at least **nine** feet wide, between the opposite travel lane and sidewalk for shopfront use lots. **An alternative to the planting strip is sidewalk with brick pavers and tree wells for shade trees. The sidewalks shall use cantilever construction to allow a minimum of 180 sq ft of root room at the surface to a depth of 3' for each tree. Trees shall be planted no closer than 10 ft to any building or wall or 3' to any pavement. When on only one side for work place use lots, the strip shall be at least eight feet wide. There should be no underground utility lines called for in the vicinity of the areas identified for tree planting within such strips in accordance with the requirements of section 30-241(f) (2).**

(f) Shade tree and street tree landscaping.

(1) One high-quality shade tree from the Gainesville Approved Tree List is required to be planted on the private property proportion of the development for every 50 feet of street frontage. The total number of trees shall equal the length of the project in feet along the right-of-way divided by 50'. If the project is on both sides of the street, then street trees must be provided on both sides. Trees shall be no closer to each other than 25' and no farther apart than 60'. This amount may be reduced in order to preserve a Heritage Tree of a high quality species in good condition. For each tree to be planted, a minimum of 180 square feet to a depth of 4' must be allocated for root growth below the surface. No building footer, utility line, or pavement can be part of this 180 square feet. The trees shall be no closer to the outside edge of the building footer than 10 feet and no closer than 3 feet to any paved area, footer or fence. Balconies or other encroachments into the areas identified for trees shall not encroach upon the space identified in the Gainesville Approved Tree List estimated 35-year crown spread so required shade trees can fulfill their intended function.

(2) In commercial zoning, trees from the "high-quality shade" category in the approved tree list may be planted in rights-of-way parallel to the street along where space will not permit the trees to be planted in the public right-of-way. Such trees should be planted in tree wells. The clear preference is for the trees to be on the private property as described above. The spacing of the trees, amount of above- and below-ground area specified above pertain to trees in commercial zoning. To achieve the 180 square feet of root room under the pavement without compacting the soil, cantilever construction or some other strategy to prevent soil compaction shall be required. Trees shall be planted on both sides of the street except as provided for in subsections 30-241(b)(15) and (19).

(3) Generally trees shall be at least eight feet tall...

(4) High Quality Heritage Trees [Sec. 30-258 (c) (3)] should be preserved in all zoning categories. Such trees that grow within 20' of the public right-of-way shall be given special consideration for preservation. No new utilities should be located within the canopy dripline of High Quality Heritage Trees. The number of required street trees may be reduced, with each 180 square feet set aside for the Heritage Tree Preservation compensating for 180 square feet that would have been required for each shade tree not planted.

(5) In no case should more than 60' of linear right-of-way or street buffer exist post-development without a shade tree.

Article VIII. Environmental Management

Division I. Generally

Sec. 30-250 Purpose; objectives

(b) Objectives

(42) To diminish the severity and frequency of Southern Pine Beetle outbreaks in Gainesville by reducing the density of loblolly pines in urban areas.

(43) To preserve give “High Quality Heritage Trees,” especially where they occur within 20’ of the public right-of-way.

(44) To favor replanting with High Quality Shade Trees species.

Division II. Landscape and Tree Management, Stormwater management and Water/Wastewater Connection Policies (Continuation of Article VIII. Environmental Management)

Subdivision I. Landscape and Tree Management

Sec. 30-251 Elements of compliance ...

(1) *Minimum percentage of developed area devoted to landscaping.* Property shall be designed, constructed and used so that the total of the areas devoted to landscape materials of any site is at least twenty (20) percent of the area devoted to development.

(2) *Minimum requirements for landscaped areas.*

a. Any required landscape island containing a tree shall have a minimum area of 180 square feet. The width of any side shall be at least nine feet. No pavement, building or curb footer, or underground utility shall be included in this 180 square feet. No lime rock or construction debris shall be found in this area prior to planting. The soil within the landscape island shall meet the requirements of the definition of rootzone media and shall exist underneath the 180 square feet to a depth of 3 feet. Pedestrian walkways should not reduce the minimum area or width requirements for any landscape area containing a tree. Trees planted in required landscape islands shall be of a species designated on the Gainesville Tree List as appropriate for parking lots.

b. Landscaping for stormwater management areas...

c. An irrigation system, or a readily available water supply within a distance of 100 feet shall be supplied for all landscaped areas. An automatic irrigation system shall be provided for developments or redevelopments of existing property in accordance with section 30-215 (3) b.4. if the total area of impervious surfaces devoted to vehicular uses exceeds 10,000 square feet. Such irrigation shall promote water conservation by such methods as drip irrigation and/or efficient sprinkler zoning. Each required tree should be served by at least two bubblers. The irrigation system shall be designed and located to minimize the watering of impervious surfaces.

d. Plants shall be sized...

e. When a landscaped area is adjacent to or with a vehicular use area, curbing...

f. All required trees shall be selected from the Gainesville Tree List. Tree species not appearing on the Gainesville Tree List may be planted only with prior approval of the City Arborist or designee. In order to encourage plant diversity, no more than 50 percent of the selected shade trees shall be of the same genus. Development or redevelopment projects on properties requiring irrigation shall have at least four different species of High Quality Shade Trees. The applicant or landscape contractor shall schedule an on-site meeting with the City Arborist prior to the installation of any trees or shrubs to ensure compatibility with infrastructure and compliance with landscape code requirements.

g. Any landscaped areas adjacent to an intersection or driveway...

h. Exemptions:

1. Lots within single-family zoning districts and the developed portion of any lot over two acres in actual single-family residential use are exempt from the requirements of this section, except that section 30-257, pertaining to Champion trees, section 30-258, pertaining to Heritage trees, and section 30-261, pertaining to subdivision requirements, shall apply.
2. Properties covered by Special Area Plans must meet the landscaping and land preservation requirements therein.
3. Shade trees are not required within areas designated for loading large trucks on properties zoned for industrial or warehousing. However, High Quality Shade Trees shall be planted around the perimeter where ever unpaved soil within the property exists adjacent the loading zone. One such tree should be planted for every 50' linear but may be clustered on centers no closer than 25'. Each tree shall have a minimum of 180 square feet available at the surface with a 10' minimum dimension; no utility lines, pavement, or other infrastructure within the 180 square foot areas. The landscaping for the proposed development shall meet all other landscaping elements of compliance.
4. Development within the approach and clear zone areas as specified on the Gainesville Regional Airport master plan, on file with the director of aviation, Gainesville Regional Airport, shall be exempt from the provision of required shade trees in areas where federal regulations prohibit shade trees. If permitted, understory trees should be substituted. Trees may be removed from such areas upon filing a tree removal permit accompanied by submission of written authorization from the Gainesville/Alachua County Regional Airport Authority or FDOT to the City Manager's designee. Reforestation is not required in areas where federal regulations prohibit trees, but the trees should be mitigated in accordance with Sec. 30-254, with trees planted on other properties associated with the Airport where federal guidelines allow or given to the City tree-planting program, unless the mitigation requirement is exempted by the Tree Appeals Board.
5. All parking garages shall be exempt from section 30-252, pertaining to landscaping requirements for vehicular use areas except for street and adjacent use buffers, which are required. The minimum street buffer for parking garages shall be 20' to allow the trees enough space above- and below-ground to attain sufficient size to impart scale to the building. Vehicles shall be screened from adjacent properties and public rights-of-way through the use of opaque materials at ground level. Parking garages should be designed to preserve High Quality Heritage trees within 20' of a public right-of-way. Preservation should be at the dripline. Permeable or cantilevered hardscape over the rootzone is permissible, so long as the soil is not compacted, the rootzone remains undisturbed, and an aeration system is installed to conduit water and oxygen to the roots.
 - (3) Expansion of neighborhood shopping centers...
 - (4) Expansion or alteration of existing uses except neighborhood shopping...
 - (5) Parking lots under lease...
 - (6) Minimum submittal criteria. All landscape plans must be drawn to scale and depict all buildings, pavement, on-site facilities, utilities and lighting systems. The landscape drawing or accompanying development plan must give the permitted use of adjacent parcels and the total square footage of all pavement on-site. Stormwater basins

shall be designated as either wet or dry. A plant schedule shall be provided showing the botanical name, size, spacing and number of all required plant materials. Architectural symbols depicting trees be installed shall not exceed the scale equivalent of five feet in diameter with a solid line; a hatched line around the solid line shall show the expected canopy dimension after twenty years as identified in the Gainesville Tree List. Any native tree or shrub may be substituted for the identified plant with city staff approval, provided that the tree or shrub is adaptable to the amount of sun/shade, wet/dry and size conditions where it will be planted, and insofar as the provisions for diversity, shading and/or screening described in the article are met. Changing tree species shall not diminish the total number of High Quality Shade Trees in their required locations. Plant material shown in addition to the required elements of the landscape plan may be labeled as optional and shall not be subject to inspection.

(7) *Design principles and standards* All landscaped areas required by this article shall conform to the following general guidelines:

a. Generally, the preservation of structurally sound native trees of High Quality Shade Tree species and shrubs is strongly encouraged to maintain healthy, varied and energy-efficient vegetation throughout the city, and to maintain habitat for native wildlife species. Loblolly and slash pines should be at least 25 feet apart post-development to reduce Southern Pine Beetle infestation outbreaks.

b. ...integrate to topography, hydrology, soils...

c. integrate functional elements (drainage, vehicle uses) with landscaping.

d. The selection and placement of landscaping materials should maximize the conservation of energy through shading of buildings, streets, pedestrian ways, bikeways and parking areas. The use of wind for ventilation and the effect on existing or future solar access shall be considered. If solar electric power generation will be a feature of the development, a portion of the proposed development site shall be set aside to accommodate the shade trees that would have been required to shade the streets, with 180 square feet set aside for each such tree at ground level. This area should be protected in perpetuity for trees by a dual conservation easement. In addition, existing trees to be destroyed on the site shall be mitigated according to the terms of Section 30-254. High Quality Heritage Trees with a condition factor of 60% or better as determined by the City Arborist or designee should be mitigated financially at the appraised value of the tree. Other Heritage trees and regulated trees shall be mitigated by establishing young trees, either in the conservation area on site, off site at a location within the city limits on conservation land, or given to the City tree-planting program.

e. Landscaping aesthetic and functional when planted and at maturity

f. Placement of trees around buildings should permit access to building by emergency vehicles.

g. The installation of the following invasive nonnative species is prohibited as is installation of any species labeled as "Prohibited" in the most recently published version of the Institute of Food and Agricultural Science (IFAS) Invasive Species Assessment:

Common Name	Scientific Name
Air potato	<i>Dioscorea bulbifera</i>

Arrow bamboo	<i>Pseudosasa japonica</i>
Brazilian pepper	<i>Schinus terebenthifolius</i>
Catclaw vine	<i>Macfadyena unguis-cati</i>
Chinaberry	<i>Melia azedarach</i>
Chinese privet	<i>Ligustrum sinense</i>
Chinese tallow tree	<i>Sapium sebiferum</i>
Chinese wisteria	<i>Wisteria sinensis</i>
Climbing fern	<i>Lygodium japonicum</i> and <i>Lygodium microphyllum</i>
Cogon grass	<i>Imperata cylindrica</i>
Coral berry	<i>Ardisia crenata</i>
Elephant ear	<i>Xanthosoma sagittifolium</i>
Glossy privet	<i>Ligustrum lucidum</i>
Golden raintree	<i>Koelreuteria paniculata</i> and <i>Koelreuteria bipinnata</i>
Golden bamboo	<i>Phyllostachys aurea</i>
Henon bamboo	<i>Phyllostachys nigra</i> 'Henon'
Hydrilla	<i>Hydrilla verticillata</i>
Japanese Ardisia	<i>Ardisia japonica</i>
Japanese honeysuckle	<i>Lonicera japonica</i>
Japanese paper mulberry	<i>Brousonettia papyrifera</i>
Kudzu	<i>Pueraria lobata</i>
Miramar weed	<i>Hygrophila polysperma</i>
Mimosa	<i>Albizia julibrissin</i>

Oyster plant	<i>Tradescantia spathacea</i>
Palm leaf bamboo	<i>Sasa palmata</i> (<i>Arundinaria palmata</i>)
Skunk vine	<i>Paederia foetida</i>
Tropical soda apple	<i>Solanum viarum</i>
White-flowered small-leaved spiderwort, Wandering spiderwort	<i>Tradescantia fluminensis</i>
Water hyacinth	<i>Eichornia crassipes</i>
Wild taro	<i>Colocasia esculenta</i>

h. For all new development, or redevelopment of existing property, the applicant should-be required to remove all invasive nonnative plant species listed above from the property prior to issuance of the certificate of occupancy. On sites with invasive species occurring within the property boundary, a plan shall be submitted with the development petition that includes a timeline, success criteria, and treatment recommendations. Efforts shall be identified to ensure minimal impact on non-target species. All herbicide applications to control exotics in wetlands or natural areas (including buffers) shall be applied by a contractor licensed by the Florida Department of Agriculture and Consumer Services Division of Agricultural Environmental Services with a current certification in Natural Areas Weed Management. The City Manager or designee should inspect such sites for a minimum of three years after completion to assure effectiveness of control efforts. The plan shall stipulate the entity to be responsible for additional treatments during the three-year follow-up if the populations of invasive non-native pest plants rebound and cover more than 10% of any previously infested area within the creek or wetland protection zones.

Sec 30-252 – Landscaping Requirements for Vehicular Use Areas

(a) *Generally.* This section provides two landscaping methods which are intended to set minimum requirements for the landscaping of vehicular use areas. Method 1 addresses shading by specifying landscape placement throughout and around the vehicular use area. Method 2 provides flexibility in the design of vehicular use area landscaping in order to accommodate unique site considerations. Method 1 shall be used for the purpose of calculating landscaping requirements for excess parking as regulated in Article IX.

(b) *Method 1, Prescriptive Landscape Requirement.*

(1) *Perimeter requirements.*

a. *Perimeter landscaped area required.* All vehicular use areas shall be separated by a perimeter landscaped area, a minimum of nine feet in width, from any public right-of-way and from any boundary of the property on which the vehicular use area is located. Areas set aside for landscaping shall not have pavement (including curb

footer) or new utility lines within the 9-foot width. The soil shall meet the definition of rootzone media in the areas where required trees will be planted.

b. *Exceptions.* This landscape area is not required:

1. When the paved ground surface area is completely screened from adjacent properties or public rights-of-way by intervening buildings or structures;

2. When an agreement to operate abutting properties as essentially one contiguous parking facility is in force, and both sites will be in compliance with the landscaping requirements in effect on the date their respective approved development orders were approved by the City. The agreement shall be executed by the owners of the abutting properties, and shall bind their successors, heirs and assigns. Prior to the issuance of any building permit for any site having such a contiguous parking facility, the agreement shall be recorded in the public records of the County;

3. When the paved area is at least 150 feet from the nearest property line and a vegetated buffer exists sufficient to create 75% opacity at eye height with High Quality Shade Trees already present in numbers that average one for every 35' of linear frontage; or

4. On redevelopment sites where the conflict between existing utility line separation distances and the shade trees required within the 9'-wide minimum street buffer cannot be resolved through modern practices such as wrapping the underground utility pipes in herbicide impregnated cloth to redirect tree roots, compacting the soil above the underground utility line to a *soil bulk density* sufficient to prohibit root incursion (greater than 1.30 g/cc in loam, 1.50 g/cc sand, or 1.20 g/cc clay soil), installation of sheet-piling or encasing the lines in ductile iron pipe, then the buffer strip may be planted with shrubs and such understory trees as may be acceptable to the utility. This exception to the street buffer requirement for planting High Quality Shade Trees shall apply only to existing utility lines. On projects where new utility lines are planned, sufficient space shall be allocated to meet both the utility separation requirements and the minimum street buffer tree-planting requirement.

c. *Location of perimeter landscape area.* The landscape area shall commence within five feet of the paved surface area, except that when a grass parking area is provided the landscaped strip may be located at the periphery, provided the area will be at least 9' wide. Where the perimeter landscape area and a required buffer strip overlap, the more stringent requirements shall be applied, except for properties in use for auto sales. For these businesses, the street buffer requirements shall only be required for 300 feet along each street frontage in the area devoted to auto display. Perimeter street buffers shall be required for all storage, accessory service and customer parking areas at any auto sales facility.

d. *Modification of requirements.* The Development Review Board or the Plan Board, through plan review, or the board of adjustment by special exception, ~~or staff,~~ when only staff review is required, may determine that:

1. Screening is better achieved by relocation of the landscape strip;

2. There is an unresolvable conflict between other element(s) of the development plan and the location, width or height of the perimeter landscape area, and that the public interest is therefore best served by relocation of the landscape area, or the substitution of a solid fence or wall in conjunction with a reduction in width **provided that the number of shade trees that would have otherwise been required are planted elsewhere on the site with at least 180 square feet set aside for each tree at ground level with sufficient room above-ground to accommodate the crown spread at 20 years of age as identified on the Approved Tree List; or**

3. That the screening would only serve to emphasize a long driveway that would otherwise be unobtrusive, **in which case the landscaping may be limited to planting shade trees on 50' centers along both sides of the driveway.**

- e. *Required plant material.* The perimeter landscape area shall contain:
1. Shrubs, arranged to provide a visual screen of 75 percent opacity and achieve a height of at least three feet within three years; and
 2. At least one shade tree planted for each **35** linear feet, or part thereof, of the boundary of the vehicular use area. The distance between such trees shall not exceed 55 feet **no shall they be planted closer than 25 feet apart.**

The **Development Review Board** or **Plan Board** during development plan review, or staff during administrative review, may determine that natural vegetation is sufficient to screen adjacent properties and rights-of-way. In such instance the existing vegetation, including understory plants and bushes, is protected from pruning and removal except that diseased plant material and invasive nonnative species **should** be replaced in accordance with this section. **Loblolly and slash pines should be thinned so they are no closer than 25' to each other, and seedling regeneration of these species should be curtailed.** Where encroachments are made for utility connections, replacement plants appropriate to the ecosystem shall be required. **No existing trees of species designated on the approved tree list as providing high quality shade should be removed to achieve utility connections. No High Quality Heritage Trees shall be removed for this purpose.**

(2) Interior Landscaped Areas

a. The placement of landscape areas throughout the interior of the paved area shall average one landscaped island for each 10 parking spaces. At no time shall a row of parking have landscape areas greater than ~~135~~ **121'** apart or closer than 35' apart. Terminal landscape islands containing a tree shall enclose each row of parking places **but these shall not be considered in the average distance if counting them would allow more than 10 parking places without a tree island.**

b. Each required interior landscaped area shall contain at least one shade tree. Such tree(s) shall be located within the landscaped area **of at least 180 sq ft** to maximize the shading of the pavement.

c. The **Development Review Board**, or **Plan Board** through development plan review, or staff when only staff review is required, may allow the relocation of such

landscape areas to preserve existing trees, or where it is determined, upon review and recommendation of the **City Manager's** designee, that the relocation is necessary for the safe maneuvering of vehicles or pedestrians.

d. In those vehicular use areas including but not limited to auto dealerships or attendant parking where interior landscaping would interfere with the customary storage or display of vehicles, the **Development Review Board** or **Plan Board** through development plan review, or staff, when only staff review is required, may allow some or all of the required interior landscaping to be located near the perimeters of the paved area, including such perimeters which may be adjacent to a building on the site. Such landscaped area would be in addition to required perimeter landscaping in the amount of one square foot of landscaped area for each 60 square feet of paved area. For each **180** square feet of relocated landscaped area, a shade tree **identified on the Gainesville approved tree list as a high quality species** shall be provided. **All landscaped areas with trees shall have appropriate rootzone media.**

e. **(eliminate this section)** ~~Any parcel of land or lot, which has fewer than 11 interior parking spaces, may be exempt from the above requirements when it is used for industrial or warehouse purposes in the MU-2 mixed use medium intensity district, CCD central city district, W warehousing and wholesaling district, I-1 limited industrial district, and I-2 general industrial district [These are interior islands...general protection is given warehousing/industrial concerns in 30-251 Elements of Compliance h. exemptions 3.]~~

Sec. 30-253 Landscape buffer requirements for buffer strip areas.

This section is intended to **identify** the minimum requirements for separation of land uses of differing type and intensity, and for the provision of an aesthetic **and sustainable streetscapes** conducive to pedestrian and bicycle traffic throughout the city. **All buffers shall be maintained to remove invasive non-native pest plants and curtail natural regeneration of seedling loblolly pines. High Quality Heritage trees in buffer areas should be preserved with the area underneath the canopy dripline protected.** The need for a buffer strip between land uses shall not impede the development of appropriate pedestrian and bicycle access ways between these uses. **Sidewalks and bicycle access infrastructure may be permitted within the protection zones of a High Quality Heritage Trees but not within the tree root plate.** Where such access ways are installed, they shall be landscaped in a manner to clearly delineate such trails and bikeways and also to provide shade trees as appropriate. Where certain uses or combinations of uses are difficult to categorize, as in planned developments or public service facilities, it is the intent of this section that buffering shall be provided which mitigates the impacts of such uses.

(1) Required buffer strip areas.

a. Buffer strips between properties are intended to provide a visual screen, to prevent undesirable access to surrounding properties, and to provide sound attenuation. **Shade trees of high quality species are essential buffer components and should be planted no closer than 3' to pavement or walls; a minimum of 10' should separate trees and building footers. The expansion of the minimum width of the buffer strip should be**

required as necessary to meet these separation requirements, as well as the separation requirements of the public utility.

1. The required buffer type, depicted on the adjacent use buffer matrix (A through E) as shown below, depends on the proposed use of a site and the adjacent use. The buffer type sets the required width and plant materials to be shown on the landscape plan. The owner/developer may choose width options X, Y or Z within the required buffer type as indicated on the matrix.

2. The buffer matrix specifies the number of plant combinations required per 100 linear feet.

3. *Adjacent use buffer and street buffer matrix.*

Buffer Matrix, Chart A. Note at bottom: Nonconforming: Indicates buffer to be provided by proposed use is due to nonexistent or nonconforming buffer on adjacent site. Letters in adjacent use buffer and street buffer matrix relate to buffer types in Chart B. Street buffer: Petitioner shall be responsible for planting both shade and understory trees. If separation requirements for existing public utilities mean that the space identified as the minimum buffer dimension provided is inadequate for the required shade trees, then the buffer should be increased in width so that the required shade trees can be planted.

Buffer matrix chart B

Option: Petitioner may choose the width option, but acceptance of the minimum width is not a given. The requirement that shade trees should not be planted within 10 feet of a building footer or 3 feet of pavement takes precedence. When commercial, mixed use, or industrial activities are adjacent to single-family, two-family, multifamily or mobile home uses, the reviewing agency may determine that, in addition to the trees and shrubs specified above, a wall is required to mitigate the effects of certain uses or to control access. Construction of such a wall shall be in accordance with the provisions of section 30-265 a (8) and meet the requirements that protect existing High Quality Heritage Trees.

4. Any shade trees existing within the minimum required buffer width should be protected in accordance with section 30-255. Credit for preserving existing trees shall be applied in accordance with section 30-264 if the trees are of high quality shade species and would be rated as having a “condition” factor of at least 60% according to the standards of the *Council of Tree and Landscape Appraisers* as determined by the City Arborist or designee. Natural vegetation, if it achieves a continuous seventy-five (75) percent opacity for ten (10) months of the year may be substituted for the required shrubs. The density of loblolly and slash pines in a natural buffer should be managed so remaining pines grow no closer than 25 feet with seedling regeneration curtailed. If a buffer that preserved existing vegetation is subsequently cleared by the property owner or when permits for tree removal are granted post-development, then buffer shrubs and trees in accordance with this section shall be required.

5. Where a required masonry wall would damage trees within the buffer area, or a majority of abutting property owners object to the installation of a wall, the

Development Review Board, or Plan Board during development plan approval, or staff through administrative review when board approval is not required, may approve the substitution of a fence or hedge with high quality trees on 35' centers for a required wall. Walls shall be cantilevered over the root zones under the canopy of Heritage trees of high quality species.

b. Street buffer yards shall be created adjacent to new development in all zoning classes except when the reviewing citizen advisory board approves a petition for exemption from this requirement. Street buffers shall be located adjacent to public rights-of-way for the purposes of traffic calming, aesthetic improvement of the community, and providing a place on private property for trees to shade the streets. The minimum required width of the street buffer yard is whatever distance is necessary to allow clearance of at least 10 feet from the footer of any building and at least 3 feet from any pavement. The amount of plant material, per 100 linear feet, are determined by the proposed land use (see buffer matrix above).

[The formatting of this section has been clarified by creating subpoints 1-6]

1. *Road Safety Clearance.* Even though the locations of proposed street buffer shade trees may be on private property, such trees must meet the clear zone regulations endorsed by the City of Gainesville Public Works Department or the maintaining agency and the utility separation requirements. Meeting these requirements may necessitate increasing the minimum width of the street buffer so both shade trees and road safety are integral to the new development.

2. *Conflict with utility easements.* When a public utility easement is adjacent to the right-of-way and the presence of utility infrastructure, either existing or proposed, prohibits the planting of required shade trees, then the width of the street buffer should be expanded to whatever width is necessary so that shade trees can be planted and the utility's required separations can be met.

3. *Setback and building articulation.* In zoning districts where the required street buffer yard is greater than the required setback, the building set-back line should be adjusted so the street buffer is sufficiently spacious to accommodate shade trees no closer than 10 feet to a building footer and no closer than 3 feet from the edge of any pavement. A minimum of at least 180 sq ft shall be set aside for each such shade tree. No pavement or utilities may be included in this 180 sq ft area. The 180 sq ft can be created beneath a pervious paved surface with tree grates provided rootzone media is provided to a depth of 6' and an aeration system installed. To accommodate articulation design features in the building face, the number of required trees may be reduced by the Plan Board or Development Review Board, provided that the distance between shade trees on the site to be developed shall be no greater than 75' along any street frontage.

4. *Street buffer-vehicular use area overlap.* Where street buffer areas overlap buffer strip areas which are required to satisfy vehicular use area requirements, the screening provided shall at a minimum satisfy the requirements for vehicular use areas.

5. When the required shade trees planted to satisfy the street buffer requirements have reached 8” in diameter, the City Arborist or designee should approve a tree removal permit to eliminate the understory trees from the required landscaping.

6. Street buffer requirements do not apply to alleys.

(2) *Conditions for implementation of buffer strip.*

a. Utility easements cannot be used as a substitute for the required buffer strip. No shade tree should be planted within twelve (12) feet of a buried public utility conduit. Easements for overhead wires shall **not result in the relocation of required shade trees. Development proposals shall meet the required utility separation requirements and the requirements to plant shade trees. Accommodating both shall be accomplished by increasing the width of the street buffer on private property rather than by eliminating the required shade trees.**

b. Where residential zoning districts are separated from nonresidential zoning districts by public utilities, drainage, railroad rights-of-way or lands zoned conservation with a width of less than 50 feet, the buffer strip shall be provided as if the parcels were adjacent.

c. No accessory structures, garbage or trash collection points or receptacles, parking or any other functional use contrary to the intent and purpose of this section shall be permitted in a required buffer strip area. This does not prohibit the combining of compatible functions such as nature trails, landscaping and drainage, provided the visual screening effect is maintained.

Sec. 30-254 Permits for tree removal.

(a) *Removal or relocation permits.* Except as provided below, no tree (living or dead) that is eight inches or more in diameter at a point 4.5’ above ground level may be removed or relocated without a removal permit as provided for in this section. **Permits for tree removal shall be obtained by the owner of the property or by an authorized agent of same. All trees planted as part of an approved development plan require a permit for removal or relocation.** Trees that require a permit for removal or relocation shall be called “regulated trees” and their removal shall be mitigated. All native trees in creek setbacks, wetland setbacks, and wetlands, regardless of the zoning of the adjacent land parcels, require a permit for removal when larger than 8” in diameter. Exceptions to this general provision are as follows:

(1) No Heritage or Champion Trees as defined in this article may be removed or relocated except as specifically provided for in Sections 30-257 and 30-258 of this article.

(2) On property with single-family zoning district classifications (RSF-1, RSF-2, RSF-3 and RSF-4) permits shall be required only for the removal of Heritage Trees as defined and provided for in Sec. 30-258.

(3) Tree removals for utility operations shall comply with the provisions of Article VIII.

(4) Permits are required to remove healthy trees which cause structural damage or problems to buildings or underground facilities due to excessive root or trunk growth, or soil expansion and contraction caused by uneven water uptake. The City Manager or designee may require verification of such claims in the form of a written report from an engineer licensed in the State of Florida which identifies the trees causing the structural problem, defines the problem, and which bears the embossed seal of the engineer.

(5) Except when in conflict with other regulations established in the Land Development Code (Chapter 30), Loblolly or Slash Pine shall be considered regulated trees only when 20" inches or greater in diameter at a point 4.5' above ground level. Loblolly or slash pines that were preserved during development to meet a Code requirement are considered regulated and shall require a permit and mitigation. Removal of loblolly or slash pines less than 20" in diameter from a natural or naturalized landscape should not require mitigation planting, unless the removals result in a uniform tree density on the site of less than one tree per 900 ft² of unpaved area. Where resulting tree density would be less, sufficient mitigation trees meeting the standard of Sec. 30-256 must be planted and cared for through establishment to achieve the specified minimum density.

(6) In emergency situations that threaten the health, safety, or welfare of the public, trees may be removed without obtaining a permit in advance if such action is necessary to maintain utility lines. However, the requirement for a permit remains; the utility company removing the tree must file one retroactively. The approval is guaranteed; such trees shall be mitigated.

(b) *Removal or relocation of regulated trees subject to development plan approval.*

When tree removal or relocation is contemplated in conjunction with any development requiring approval of a development plan or subdivision plat by the Development Review Board or Plan Board, such removal or relocation shall be considered and either approved or denied at the same time a development plan or plat is approved or denied, based upon the same standards for approval as specified in subsection (e) of this section. All of the required plans, data or other information required with the application shall be included on the proposed development plan or on the supporting documents submitted with the plan. The following conditions shall apply:

(1) Decisions on tree removal shall be based on a graphic depiction of trees on a *tree survey* showing every regulated tree, or a *qualitative tree survey* which identifies only significant trees. Trees on either type of defined tree survey must be identified to genus and species. The landscaping plan shall show all trees to be preserved and give instructions on the construction of protective tree barricades that meet the requirements of Sec 30-255. The landscaping plan also shall communicate the details of the mitigation requirements identified in this section and in section 30-258.

(2) Mitigation regulations for trees proposed for destruction are as follows:

a. The financial "tree appraised value" of High Quality Heritage trees with a condition rating of 60% or better shall be collected from the developer and transferred to a City fund established for the acquisition of land upon which a dual conservation easement has been or shall be established. The maximum average number of trees per acre on a development site for which financial mitigation shall be required is

three. High Quality Heritage trees that will be destroyed in excess of the overall average of three per acre eligible for required financial mitigation shall be mitigated as Heritage trees, explained next.

b. Heritage trees that do not meet the above standard because they are not High Quality Shade Trees species or because their condition factor is less than 60% shall be mitigated on a diameter inch-for-inch basis. Trees planted to meet mitigation requirements are in addition to the trees planted to meet the landscaping requirements and shall not take the form of planting trees in sizes larger than 30-gallon containers. Mitigation trees shall be of high quality shade species. So mitigation trees planted on site will have sufficient room for growth, at least 180 sq ft shall be set aside for each new tree; each 180-sq-ft-area shall be free of both above and below-ground infrastructure. The remaining trees for which no space is available on the site of the development project should be established on a different site within the City limits in an area covered by a dual conservation easement or should be given to the City tree-planting program for establishment on public property.

c. Regulated trees shall be mitigated on a 2:1 basis, with the two High Quality Shade Trees established for each regulated tree removed handled. The options for locations of these mitigation trees are the same as above.

(3) Development projects implementing solar equipment shall be designed to include High Quality Shade Trees on the property in such numbers as would be required to meet the Code tree-planting requirements were the project not to implement solar equipment. Each tree must have at least 180 sq ft of space set aside for it in a location where it can grow to maturity without interfering with the solar collection equipment. The 180-sq-ft set-aside applies above-ground and below-ground. Mitigation for trees to be destroyed to implement the solar development shall be the same as in point (1) above.

(4) Properties with loblolly pines under the regulation size of 20" in diameter should propose removal of sufficient trees to render the spacing of remaining pines no closer than 25 feet.

(5) Special conditions should be imposed by the Plan Board or Development Review Board to assure the successful preservation of Champion or High Quality Heritage trees. These special conditions include but are not necessarily limited to:

(a) Declining to approve a proposal because one or more Heritage Trees are not protected at the dripline in accordance with Sec. 30-255 (b) (2) a.

(b) Requiring the trees to be protected with chainlink barricades.

(c) Requiring the posting a performance surety in an amount equal to the appraised tree value if the plan does not protect the areas above and below the Heritage tree dripline. The surety should be in place for a length of time approved by the Tree Appeals Board but not to exceed five years.

(d) Requiring a soil aeration system in the vicinity of tree roots as needed.

(6) Trees on the public right-of-way adjacent to the proposed development should be preserved with no impact to the tree root plate, even if the tree root plate impinges on the private property. The installation of new utilities or improvements to

public utilities required to serve the development should not require the removal of High Quality Heritage trees on the public right-of-way. Trees planted in association with existing public beautification efforts on Gateway streets should be preserved.

(7) Construction drawings should be submitted to the Building Department and application for construction permits made before any trees are removed.

(8) After a certificate of occupancy has been issued for a development, any tree removal shall require either a tree removal permit or an approved plan amendment. Failure to obtain a permit before removing or relocating any **existing regulated tree or any tree that was planted to comply with the approved site plan** shall be subject to the measures for enforcement and replacement specified in section 30-311, pertaining to violations, and the provisions of Article X of this chapter.

(c) *Removal or relocation of regulated trees not subject to development plan approval.* Any person desiring to remove or relocate a regulated tree except trees subject to development plan approval shall file **a tree removal permit** with the **City Manager** or designee. **As a condition of granting a permit, the applicant shall mitigate each tree being removed as follows:**

(1) High Quality Heritage Trees that have a condition factor of 60% or better according to the standards of the *Council of Tree and Landscape Appraisers* and which are not damaging structures or infrastructure should be mitigated financially according to the defined Tree Appraised Value, except in owner-occupied single family dwellings, in which case they should be mitigated on a diameter inch-for-inch basis, with the money transferred to a City fund established for the acquisition of land upon which a dual conservation easement has been or shall be established.

(2) Heritage Trees not causing structural damage that are of species not listed in the “high quality shade” category on the Approved Gainesville Tree List and which would have a condition factor of .60 or better should be mitigated on a diameter-inch-for-inch basis. The trees should be established:

a. On the site from which the tree is being removed, provided each tree will have 180 square feet of room at the surface, as well as space below-ground that will not interfere with underground utilities and space above-ground for the crown to achieve the 20-year crown spread as indicated on the approved tree list;

b. Off-site in a location within the City limits where each tree will have at least 180 square feet of room at the surface, as well as space below-ground that will not interfere with underground utilities and space above-ground for the crown to achieve the 20-year crown spread as indicated on the approved tree list.

c. Given to the City tree planting program for establishment on public property.

(3) Heritage trees with a condition factor of less than 60% and all other trees meeting the definition of “regulated” shall be mitigated by planting two trees for each tree being removed. Replacement trees shall meet the specifications identified in Sec. 30-256 (Replacement Stock).

(d) **Tree Removal Permit Application and Procedures:** Permit applications shall include the following information: property owner, address from which tree will be removed, tree species and diameter, and reason for wanting to remove the tree. The permit shall be signed by the property owner or a representative; whomever signs shall be responsible for planting and caring for the required mitigation trees through the defined “establishment” period. The **City Manager** or designee shall, within five working days of the filing of such applications, attempt to verify the information contained in the application and either approve or deny the application as to each regulated tree proposed to be removed or relocated.

(e) *Permit approval criteria.* Removal or relocation of regulated trees shall be approved by the **City Manager** or designee upon a finding that the tree poses a safety hazard; **has** been weakened by disease, age, storm, fire or other injury; or prevents the reasonable development of the site, including the installation of solar energy equipment. **Trees on property belonging to a different entity shall not be required to be removed to accommodate solar equipment installed on a different property.** Regulated trees shall not be removed, damaged or relocated for the purpose of locating utility lines and connections, unless no reasonably practical alternative **is available**, as determined by the **City Manager** or designee. **Regulated trees for which a Tree Removal Permit has been approved shall be mitigated as defined in (c) above.**

(f) *Suppression of Southern Pine Beetle.* Requests for permits to remove trees for the suppression of infestation by Southern Pine Beetle should be evaluated and approved within three days.

(g) *Standards for tree relocation or replacement.* As a condition of the granting of a permit, the applicant will be required to replace or relocate the trees being removed with suitable replacement trees **as defined in (b) and (c) above.** The required locations of relocated or replacement trees shall consider the needs of the intended use of the property together with a realistic evaluation of the following:

- (1) Existing tree coverage, including percentage of canopy.
- (2) Number of trees to be removed on the entire property.
- (3) Area to be covered with structures, parking and driveways.
- (4) Topography and drainage of the site and its environs.
- (5) Character of the site and its environs.
- (6) Ecology of the site.
- (7) Characteristics and amount of shrubs, grass and trees proposed for planting on the site by the applicant.
- (8) **The liability to the community of dense stands of loblolly and slash pines.**
- (9) The health and desirability of existing trees.
- (10) The impact of features included in the proposed project (e.g. buffer areas, etc.) and areas not to be impacted by the proposed project.

(h) *Natural emergencies or disasters.* In the case of natural emergencies or disasters such as hurricanes, windstorms, floods, or other disasters, issuances of permits for the removal of damaged trees may be waived by the **City Manager or designee.** **This waiver should apply to damaged trees or trees in the way of machinery necessary to correct threats to the health and safety of the public.** Such waiver may not be for an

indefinite period and shall expire when the **City Manager or designee** determines that emergency conditions have ended.

(i) ***Commercial Tree Removal Permits*** Commercial Tree Removal Permits may be granted for the removal of trees associated with forestry management, tree harvest and other similar commercial purposes in accordance with the requirements of this subsection.

- (1) ***Applicability.*** Commercial Tree Removal Permits may be requested in lieu of other tree removal permits required by this section where no development of the property is intended. Where development of the property is planned, the petitioner shall address tree removal within the development plan review or normal tree removal processes. **Commercial Tree Removal Permits may be issued for developed properties on which large numbers of loblolly or slash pines were preserved and on which property the owner now wishes to remove said pines to reduce the vulnerability of the property to Southern Pine Beetle infestation.**
- (2) ***Permit granting authority.*** The **City Manager** or designee, the **Board of Adjustment** or the **Development Review Board** have authority to grant **Commercial Tree Removal Permits** as described below.
- (3) ***Receipt of request.*** Owners of property may request the appropriate authority to grant a permit for the commercial removal of trees by filing ~~such~~ an application with the **Department of Planning and Development Services** on forms supplied by the **Department** together with the appropriate fee. The request will be accompanied with the following information supplied by the applicant:
 - (a) Suitability of the trees for harvest, **including intent to diminish the likelihood of future Southern Pine Beetle infestations.**
 - (b) Harvesting methods to be used. **Within 50' of the edges of the property, trees shall be removed by methods that minimize damage to understory vegetation. If loblolly or slash pines are retained in these buffer areas, they will be spaced no closer than 25'. Spacing during production for industrial forestry operations is not regulated, but the Best Management Practices of the Florida Division of Forestry should be followed.**
 - (c) Sedimentation and erosion control measures **are** to be used.
 - (d) Plan of property showing location of required buffers next to water bodies and property lines and tree canopy to remain as applicable. **Applications that grant permission for timber harvest that plan to use heavy equipment in wetlands, creeks, at edges of lakes or in their buffer areas as established in Sec. 30-302 shall indicate on the application that the owner accepts the right of the City to enforce the condition that said property shall be ineligible for the kinds of zoning**

or land-use changes that permit development during the subsequent ten years.

- (e) Tree protection measures as specified in 30-255 shall be implemented for High Quality Heritage trees that exist on the site.
- (f) Species of trees to be used for replacement. The re-vegetation plan should discourage high-density loblolly pine regeneration conducive to Southern Pine Beetle infestation. For sites that will not remain in commercial forestry, revegetation should be with High Quality Shade Tree Species.
- (g) Post-harvest land management techniques shall be proposed that discourage colonization by invasive non-native pest plants as per Sec 30-251 (7).

(4) *Notice.* Whenever a property is under consideration for a permit, except any property designated agriculture on the Future Land Use map, all owners of property adjacent to the property shall be given notice by mail. Such notice shall be mailed at least 15 days prior to the granting of the permit. For the purpose of this notification, an owner of property shall be deemed to be the person who, by his/her address, is shown on the tax rolls of the city. If any such property is part of the common area of a condominium, notice shall be sent to all of the condominium unity owners as shown on the latest tax rolls. Additionally, the property under consideration shall also have a sign posted at least five days prior to the date the permit is to be granted. The sign shall specify that the property is under consideration for a permit allowing tree removal for commercial purposes and specify the date the permit is to be granted.

(5) *Procedure for review.* If less than 20 percent of the noticed property owners file a written objection to the proposed tree removal within 15 days of the mailing of the notice, the Commercial Tree Removal Permit may be issued provided all other provisions of this section and this chapter have been met.

- a. *Parcels of five acres or less, other than property designated agriculture in the Future Land Use map.* If 20 percent or more of such noticed property owners file a written objection within 15 days of the date of mailing of the notice, the application will be referred to the board of adjustment for a public hearing according to the notification for special exception procedures as found in Article X. The board of adjustment in deciding whether to approve or disapprove the application shall consider the factors delineated in subsections (i) (7) and (8) of this section.
- b. *Parcels of more than five acres, other than property designated agriculture on the Future Land Use map.* If 20 percent or more of such noticed property owners file a written objection within 15 days of the

date of mailing of the notice, the *Future Land Use* shall hold a public hearing in accordance with its rules. The **Development Review Board**, in deciding whether to approve or disapprove the application, shall consider the factors delineated in subsections (i) (7) and (8) of this section.

c. *Parcels designated agriculture on the **Future Land Use** map.* All applications for tree removal on such parcels shall be reviewed by the **City Manager** or designee, who, in deciding whether to approve or deny the application, shall consider the factors delineated in subsection (i) (7) and (8) of this section. Appeals of the decision of the **City Manager** or designee shall be made to a hearing officer. The procedure for the appeal shall be the same as is provided in section 30-350(a) for appeals from decisions of the **Development Review Board**.

d. *Parcels with conservation easements or managed as nature parks or preserves.* In conjunction with ecosystem restoration, parcels managed to enhance wild land conservation value may be exempt from securing a Commercial Tree Removal Permit for large-scale tree removal providing the following criteria are met:

1. A plan for the removal and revegetation of the area has been approved by the City Arborist or designee.

2. Tree removals without a permit will only be granted for the following species: loblolly pine, slash pine, water oak, laurel oak, sweetgum, sugarberry, and any tree not native to Alachua County.

3. The goal is restoration of a natural community or communities appropriate to the site as indicated by soils, remnant vegetation, and hydrological and geological conditions.

4. The applicant has demonstrated that after the removals, the land will be maintained in ways that promote the continuation of the restored natural community.

5. The plan has been approved by a City Commission authorized Advisory Board with expertise in such matters (e.g. The Nature Centers Commission or the Tree Advisory Board).

(6) *Action on application.* Upon receipt of a completed application and following the notice period specified above, or after the permit has been granted after a hearing under subsection (i) (5), the **City Manager** or designee will issue the **Commercial Tree Removal Permit**, except as may be modified below, with the following conditions:

a. Unless otherwise specified herein, trees will be removed according to best management practices, as specified in the most recent edition of “**Silviculture: Best Management Practices**” published by the State Department of Agriculture and Consumer Services, Division of Forestry.

b. No **Regulated Tree** shall be removed and no logging road shall be constructed within a minimum buffer distance of **50'** in the break in slope at the top of the bank of any creek; within **50'** of the landward extent of a lake or wetland as defined by this chapter; or within the delineated boundaries of uplands **of significant ecological communities. Specific criteria pertaining to these natural features are defined in sections 30-302 and 30-309.** This requirement may be waived **if necessary to construct a bridge** to access the property where trees are to be removed. Such waiver shall be limited to the area necessary to construct the bridge.

c. Following removal of the trees granted by the permit, the petitioner shall within **36** months provide for revegetation of the site by one of the following means:

1. Where forestry or other agricultural use of the property is to continue in **conservation** or agriculture districts, pine seedlings or other forestry or agricultural crops, including pasture, may be planted.
2. Where forestry use is to be abandoned or in districts where it is not a permitted use, **planting or preservation of** replacement trees shall be required as per section 30-260.

d. **Post-harvest management plan shall comply with and discourage invasive nonnative species identified in Section 30- 251(7).**

(7) *Imposition of additional conditions.* The **City Manager** or designee, **Board of Adjustment** or **Development Review Board**, as appropriate, may impose other reasonable conditions where need is demonstrated. Such conditions may include restrictions on percentage of canopy removed or the prohibition of tree removal from certain portions of the site under consideration. The **City Manager**, board of adjustment or **Development Review Board**, as appropriate, shall be guided by, but not restricted to, the following criteria in imposing such additional conditions:

- a. The need to provide buffers to adjacent developed property;
- b. The need to protect soils highly susceptible to soil erosion as identified by the soil survey of the county;
- c. The need to protect slopes in excess of ten percent, particularly near creeks and other bodies of water;
- d. The need to protect existing wetlands, **floodplains, flood** channels and other environmentally sensitive areas as shown on existing maps, photographs and other reliable and available sources; and
- e. The need to preserve endangered, threatened or special concern animal and vegetative species, habitats and communities, rare hardwood hammocks, **Heritage** or Champion trees as identified **in rom competent sources.**

- (8) *Removal of trees specifically planted or managed for harvest.* Where environmental and other factors limit the removal of trees on 7 percent or more of the site under consideration, the **Commercial Tree Removal Permit** may be denied. However, factors identified above may not be used to unduly prohibit the harvest of trees where it is demonstrated that the trees to be harvested were specifically planted for that purpose.

Sec. 30-255. Tree preservation during development and construction.

(a) *Barriers required.* Prior to clearing, demolition, or other construction activities, protective barriers shall be constructed, as necessary, to prevent the destruction or damaging of regulated trees that are located within **50** feet of any construction activity or storage of equipment and materials. Barrier placement along subdivision streets are regulated in accordance with the provisions of sections 30-183(e)(2)i. Trees destroyed or receiving major damage shall be **mitigated and replaced** before issuance of a certificate of occupancy or use, if such certificate is required, unless approval for their removal **was granted in accordance with terms in Section 30-254.** The **City Manager** or designee shall determine which trees, if any require protection, **mitigation**, or replacement. To avoid conflicts between barrier placements and demolition and construction activities, barriers shall be drawn to scale on the demolition, grading and paving sheets of the development plan.

(b) *Barrier zones.* All regulated trees not designated for removal by the terms of the permit **or approved development order shall be protected** by barrier zones erected **and inspected** prior to construction of any structures, road, utility service or other improvements. **Barricades should** comply with the following:

- (1) Protective barriers shall be plainly visible and shall create a continuous boundary around trees or vegetation clusters in order to prevent encroachment by machinery, vehicles or stored materials. **To further protect tree roots, a layer of wood chips at least 8" thick should cover the soil within the barricade.** Barricades must be at least three feet tall and must be constructed of either wooden corner posts at least two by four inches buried at least one foot deep, with at least two courses of wooden side slats at least one by four inches with colored flagging or colored mesh attached, or constructed of one-inch angle iron corner posts with brightly colored mesh construction fencing attached. **High Quality Heritage trees [as defined in Sec. 30-258 (a)] should be protected by galvanized chain link fencing minimum of 48" high, 11-gauge wire, 2" mesh size, with 1-7/8" line posts in 20 lbs of concrete no further than 10' apart and 2-3/8" corner posts in 40 lbs of concrete.**
- (2) Barriers shall be placed as follows:
 - a. At or outside the dripline for all Heritage and Champion trees and all regulated pine and palm trees.
 - b. At a minimum of two-thirds of the area of the dripline for all other regulated species.

- c. The tree root plate--a circular area with a radius of four (4) times the trunk diameter--shall always be included within the tree barricade.
- (3) If complying with the above placement of barriers is found to unduly restrict development of the property, the Plan Board or Development Review Board may approve alternative barrier placements or methods of protection provided that at a minimum at least 50% of the area under the canopy dripline remains undisturbed (no grade change or roots cut). There shall be absolutely no disturbance to the tree root plate. Protective barriers may not be removed or relocated without approval.
- (4) No grade changes shall be made within the protective barrier zones without prior approval of the City Manager or designee. Where roots greater than one inch in diameter are damaged or exposed, they shall be cut cleanly and re-covered with soil within one hour.
- (5) Protective barriers shall remain in place and intact until such time as landscape operations begin or construction needs dictate a temporary removal (for less than 24 hours) that will not harm the tree. The City Arborist or designee shall be advised when protective barriers will be temporarily removed.
- (6) Landscape preparation in the protected area shall be limited to shallow discing of the area. Discing shall be limited to a depth of two inches unless specifically approved to a depth of four inches by the City Manager or designee the Development Review Board, or the Plan Board, as applicable.
- (7) No building materials, machinery or harmful chemicals shall be placed within protective barriers defined in subsection (b)(2) of this section, except short-duration placements of clean fill soil that will not harm the tree. Such short-duration placements shall not exceed 7 days. The City Arborist or designee shall be advised on the date the temporary storage will begin and end. The original soil grade that existed within the protected areas prior to the placement of such fill shall be restored.
- (8) *The American National Standards Institute A-300 Part V: Management of Trees and Shrubs During Site Planning, Site Development, and Site Construction* or other nationally recognized arboricultural standards approved by the City Manager or designee shall be used as guidelines for tree protection, planting, pruning and care.
- (c) *Performance Surety Bond.* When development plans showing the protective area set aside to protect High Quality Heritage trees do not show protection both above- and below-ground at the canopy dripline, then successful tree preservation should be assured by posting a surety bond equal at a minimum to the Tree Appraised Value as established in the definition section (Article II of this Chapter, Sec 30-23). The bond shall be released upon the completion of the project with the approval of the City Arborist, provided that the tree was protected in accordance with the Code provisions in this section and in accordance with the approved site plan. If documentation confirms the tree

barricades were not maintained in accordance with the specifications in this section throughout construction, then the term of the bond should be extended for five years to confirm the tree's survival.

Sec. 30-256. Replacement Stock

Replacement trees shall be nursery-grown and meet the standards of Grade Number 1 of the Florida Department of Agriculture Division of Plant Industry Nursery Grades and Standards. Replacement trees must be at least 7 feet tall with a trunk caliper of 2" (+ or - ½") and grown in a 15-gal container. For field-grown trees, the caliper is the same; the rootball must be sturdy and have a minimum diameter of 24". Replacement trees must survive and are considered subject to the regulations for removal defined in Sec. 30-254. Tree species selected for replacement must grow at least at large at maturity as the tree being replaced and must be on the Gainesville Tree List. When ten or more replacement trees are required, the trees shall consist of no more than 50 percent of any one tree genus. Development within airport flight paths is excluded from the genus requirement.

Sec. 30-257. Champion trees.

- (a) Champion trees are those that have been identified by the State Division of Forestry as being the largest of their species within the corporate limits of Gainesville, Alachua County, or the State of Florida or by the America Forestry Association as the largest of their species in the U.S. The current list of Champion trees in the city and the county that have been identified is on file in the department of community development. This list is subject to revision and will be updated yearly.
- (b) Champion trees shall be considered regulated trees in both excluded areas, as defined in subsection 30-266, and nonexcluded areas.
- (c) The removal, relocation or replacement of Champion trees in conjunction with development requiring board approval shall be in accordance with subsections 30-254(b) and 30-254(f). The removal, relocation or replacement of Champion trees shall be by special exception of the board of adjustment.

Section 30-258 Heritage Trees

The Heritage designation is conferred on the large trees that are the major distinguishing feature of Gainesville's urban forest. They provide many benefits to the environmental stability of the community in the form of oxygen generation, air quality improvement, stormwater attenuation (flood control and pollution prevention), carbon sequestration, energy conservation, noise attenuation, stabilization of the rain cycle (remoistening the air through evapotranspiration), wildlife habitat, and aesthetic refinement. All native tree species are designated Heritage Trees when they reach the size of 20 inches in diameter when measured at 4 ½ feet above ground level. Exceptions are:

- Water Oaks (*Quercus nigra*),
- Laurel Oaks (*Q. hemispherica*),
- Sweetgums (*Liquidambar styraciflua*), and
- Loblolly Pine (*Pinus taeda*)

These become Heritage Trees only when they are larger than 30 inches in diameter when measured at 4 ½ feet above ground level.

(1) Heritage Trees that meet the criteria of the *Council of Tree and Landscape Appraisers* as having a condition factor of 60% or better should be preserved.

(2) Heritage Trees are regulated in all zoning and land-use categories. The only exception are properties already developed as single-family homes in zoning district classifications RSF-1, RSF-2, RSF-3 and RSF-4. In the aforementioned zoning classes, Heritage Trees of species identified in the Gainesville Tree List under the category of High Quality Shade Trees shall require a permit for removal regardless of where they occur on the property. Heritage Trees of species that are not so designated on the Gainesville Tree List are regulated only within the legal setbacks of the property.

(3) The removal and mitigation of Heritage Trees in conjunction with development requiring board approval shall be in accordance with subsections 30-254 and should follow these requirements:

(a) Any permission given for the removal of a Heritage Tree that has a condition factor of less than 60% using the criteria of the *Council of Tree and Landscape Appraisers* in conjunction with an approved development plan shall be mitigated with two shade trees in addition to the trees required to be planted in accordance with Sec. 30-251, 30-252, and 30-253.

(b) Permission given for the removal of any Heritage Tree that has a condition factor of 60% or greater using the criteria of the *Council of Tree and Landscape Appraisers* in conjunction with an approved development plan shall require mitigation as follows:

i. Heritage Trees of species designated as providing high quality shade on the Gainesville Tree List are High Quality Heritage Trees and should be mitigated at the defined Tree Appraised Value. The funds collected shall be used to protect land within the City limits that shall be set aside for the public enjoyment of Heritage Trees and protected from development through a dual conservation easement as defined in Article II, Sec. 30-23. The City of Gainesville shall be a party to the land acquisition negotiations either as owner or as one of the holders of the conservation easement over the property. Financial mitigation shall be collected on no more than three High Quality Heritage trees per acre that will be destroyed. Saving comparable Heritage Trees on other parts of the site by setting aside land under a conservation easement that meets the aforementioned criteria can qualify as mitigation, providing the trees are in locations that would not already be protected because they fall within the required protection buffers for wetlands and creeks.

ii. Heritage Trees of species not identified on the Gainesville Approved Tree List as providing “high quality shade” should be mitigated by replacement on an inch-for-diameter-inch basis, with the additional trees established on-site, off-site within the City limits, or given to the City tree planting program for establishment on public property. These trees shall be in addition to the trees that must be planted to meet the

requirements of Sections 30-251, 30-252, and 30-253. Each additional tree should have a minimum of 180 sq ft of growing space devoted to it. Planting trees in larger containers than those specified in Sec. 30-265 (a) (2) instead of additional trees on development sites should not be considered appropriate mitigation.

iii. Mitigation trees established off-site require the agreement of the City Manager or designee on the location (which should be within the City limits), the species of trees selected, and the technical specifications in the contract for the tree planting, which must guarantee replacement plantings if trees die and that all trees planted will be established in the landscape for a minimum of 3 years.

iv. Assessment of the Tree Appraised Value and the condition percentage shall be made by the City Arborist or designee. Irreconcilable arguments regarding the Tree Appraised Value shall be referred to the Tree Appeals Board in accordance with the Article X Administration, Division 12, Sec. 2-430.16.

Sec. 30-260 Reforestation

As a condition of any development order issued for commercial harvest for any property other than excluded areas, there must exist or be planted on such property within **three** years trees of species identified on the Gainesville Tree List as providing high quality shade or approved for use in retention basins. At least 12 such trees shall be planted per acre, following the installation standards in section 30-265. Preference should be given to planting locations where future development will not require removal of said trees. Credit will be given for preservation of existing trees of species identified on the tree list as giving high quality shade.

Sec. 30-261 Tree removal and planting of street trees in new subdivisions

(a) *During construction.* During the construction of required subdivision improvements, the developer shall only remove those trees that will hamper the installation of the improvement. To ensure that this limitation is not exceeded, the appropriate reviewing board may require that the subdivider provide plans, aerial photographs or other data sufficient to allow an accurate determination to be made.

(b) *Street trees.* The subdivider shall plant **High Quality Shade Trees** from the Gainesville Tree List **on private property** within **ten** feet of the right-of-way of each street within the proposed development. The trees shall be planted along existing streets that border the project on the side contiguous to the development. The trees shall be spaced 50 feet apart on average, meaning that the total number of trees along any single street shall be equal to quotient of the total distance of both sides of the street edge divided by 50 feet). The shade trees shall be planted no closer than 10' to the footer of any building or 3' to any pavement. Alleys are exempt from street tree planting requirements. The planting plan shall be developed to meet the separation requirements of public utilities, Public Works clear zone safety requirements. The Development Review Board or the Plan Board may approve a proposal to plant the required shade trees within the public right-of-way, provided that the planting space affords to each tree a minimum of 180

square feet at the surface with the minimum dimension being no greater than 9 feet wide. No utility lines should be within the 180 square foot area for each tree. The approving board should only approve street trees in the public right-of-way if assurance is made by the developer to establish a Homeowners Association which will be responsible for mitigating street trees, should subsequent plans for public infrastructure improvements require the removal of street trees from the public right-of-way. The subdivision plat should be designed to preserve or mitigate High Quality Heritage trees in accordance with the provisions in Sec. 30-258. Development proposals shall meet:

- (1) The utilities' requirements for separation between infrastructure and trees,
- (2) The clear zone requirements endorsed by the City of Gainesville Public Works Department or the maintaining agency, and
- (3) The requirement for planting street trees of high quality shade species identified in the Approved Tree List along all streets (both private and public). This requirement shall apply to streets being constructed as part of the subdivision and to the existing streets adjacent to the subdivision on the side that abuts the new subdivision.
- (4) Requirements for Gateway Streets in accordance with section 30-262.

Existing native trees of species identified on the Approved Tree List as offering high quality shade may be counted as required trees, if approved by the City Manager or designee. Where property on one side of the right-of-way is not owned by the subdivider, such trees shall be planted only on the side of the street owned by the subdivider.

(c) *Solar Panels.* The design of subdivisions where homes are to be fitted with rooftop solar panels shall set aside an area where trees are preserved or will be planted to compensate for the street trees that will not be planted to cast shade along the public rights-of-way. The location of this area should be established during the required concept review for solar projects per section 30-160 (b) (1). The area set aside shall allot at least 200 sq ft for each shade tree to be planted or preserved (unless the preserved tree meets the High Quality Heritage criteria, in which case it shall be preserved at its dripline). The area set aside for trees shall be located so that they can grow to maturity without obstructing any solar panel, and a dual conservation easement over this portion of the property shall be granted to the City of Gainesville and an appropriate not-for-profit land conservation agency. Homes in subdivisions featuring solar equipment should be multi-story and take advantage of other energy-saving design features.

Sec. 30-262. Tree planting in gateway street district.

(a) *Generally.* The applicant shall plant gateway trees adjacent to the right-of-way from the Gainesville Tree List. Trees planted to meet this requirement shall be located on the applicant's property, and no closer than five feet, or farther than ten feet, from the right-of-way or public utility easement, or within the street median. One tree shall be planted for every 35 linear feet of right-of-way or street median. Large or medium shade trees shall be utilized in all areas outside of medians. Median islands adjacent to any property proposed for development should be landscaped with trees and shrubs and

maintained in perpetuity by the owner of the property, with this responsibility transferred to new owners when the property is sold. Median island trees shall be selected from the "small or medium gateway tree" list. It is the responsibility of the developer to negotiate installation with whatever government agency has control of the medians. Median trees shall be selected from the "small or medium gateway tree" list. For installations adjacent to overhead utility lines, one small gateway tree for every 25 linear feet shall be planted. For installations adjacent to streetlights, the following clear zones shall be maintained:

- (1) Large gateway trees: 50-foot clear radius.
- (2) Medium gateway trees: 35-foot clear radius.
- (3) Small gateway trees: 25-foot clear radius.

(b) *Exemption.* No gateway street trees shall be required if, in the opinion of the City Manager or designee, gateway street objectives are achieved by the preservation of existing healthy trees.

Sec. 30-263 Credit for preservation of existing trees. Recommend removing this section completely. Whenever the terms of these sections require the provision of shade trees on any lot, credit shall be given for the preservation of existing trees which are properly protected during any clearing or construction on the property, pursuant to section 30-264, and which meet the following criteria:

- (1) Such trees must meet the requirements of these sections for location, spacing and type of tree.
- (2) Any such trees which have a minimum two-inch trunk diameter at a point four and one-half (4 ½) feet above ground level and a minimum crown spread of ten (10) feet shall provide credit on a one-for-one basis for trees required pursuant to subsections 30-261(b) or 30-2252(b) and (c).

<i>Existing Crown spread of preserved tree</i>	<i>Or</i>	<i>Diameter of tree trunk 4.5' above natural grade</i>	<i>Number of trees credited</i>
90 feet or greater	or	36 inches or greater	7
60-89 feet	or	30-35 inches	6
50-59 feet	or	26-29 inches	5
40-49 feet	or	20-25 inches	4
30-39 feet	or	13-19 inches	3
20-29 feet	or	8-12 inches	2
10-19 feet	or	2-7 inches	1

Sec. 30-264 Tree protection requirements generally.

(a) Trees may be preserved on development sites in locations where a new tree would be required under sections 30-251 b.3.iii *retention basin planting*; 30-252 (b) and (c) *vehicular use area landscaping*; 30-253 (*buffer planting*); 30-260 *reforestation*; and 30-

261 subdivision street tree planting. Credit for the preservation of such a tree will be given if the following criteria are met:

(1) *Protection Zones.* Fifty (50) percent of the area within the dripline of the tree shall be naturally preserved, both above- and below-ground. Under no circumstances shall permission be given for any construction activity within the tree root plate as defined in Article II section 30-23. The 50% protection zone must include the entire root plate. Landscape materials are permitted within the 50% protection zone but not within the root plate. Within the 50% protection zone there shall be no alteration to the existing grade, no trenching or cutting of roots, nor shall there be any storage of materials or fill. No heavy equipment shall be permitted within the protection zone. All work must be done by hand. There shall be no compaction of the soil, as from heavy construction equipment, and no concrete, paint, chemicals or other foreign substances placed within this protection zone.

(2) The City Arborist or designee may approve paving blocks within the protection zone, provided that all work is done by hand (no machinery), and that the soil area under the pavers is not compacted beyond the bulk density limits of 1.40 g/cc in clay, 1.50 g/cc in loam, or 1.7 g/cc in sand. No lime rock or other material shall be used underneath the pavers. Pavers may not be placed within the tree root plate protection zone.

(3) *Barricade protection.* Preserved trees will be protected during clearing and construction in accordance with Sec. 30-255. A layer of wood chips 8" thick shall be maintained over the tree roots within the protective barriers.

(4) There shall be no evidence of active insect infestation potentially lethal to the trees, and no damage from skinning, barking or bumping.

(b) During construction, if the requirements of subsection (a) have not been met, the decision whether to seek mitigation should be made by the City Arborist and building official based on the structural stability and health of the tree.

(c) If any preserved tree is not alive and healthy five years after the certificate of occupancy is granted, it shall be removed and replaced with the tree or trees which originally would have been required. The area that was preserved to accommodate the preserved tree shall be maintained in an unpaved condition and the replacement trees established in this area. High Quality Heritage trees sometimes die from construction activities as long as five years after completion of the project. If sufficient evidence exists to convince the Tree Appeals Board that such a tree has died as a result of construction activities, the time limit expands to five (5) years and financial mitigation based on the defined appraised value of the tree can be exacted by a decision of the Code Enforcement Board per Sec. 30-258 (b) in addition to replacement with a young tree or trees in the same location.

(d) The department of community development shall maintain and make available to the public, descriptions and illustrations of tree preservation and protection practices which will assist in assuring that preserved trees survive construction and land development. (Ord. No. 3777, 1, 6-10-92).

(e) During construction, if the City Arborist or designee finds a preserved tree is unlikely to survive in satisfactory condition, permission should be given to remove and replace it. Mitigation for Heritage trees should follow the requirements identified in Sec. 30-258 (b). All other regulated trees should be mitigated by adding to the approved landscape plan two trees for each removed tree.

(f) During the site plan review process, the City Arborist or designee may require the installation of a soil aeration system in situations where fill will be added over roots of preserved trees or where compaction may reduce the availability of water and oxygen to tree roots.

Sec. 30-265 Standards for installation and maintenance of landscape materials

(a) *Installation*

(1) *Quality.* All plants shall be Florida Nursery Grade Number 1 or better according to the Florida Department of Agriculture Division of Plant Industry Grades and Standards for nursery plants. They shall be healthy, disease-free and pest-free, and hardy for the North Florida region. Nursery invoices or labels must clearly specify that Grade Number 1 or better plants were purchased for installation.

(2) *Tree Size.* The average height of trees should be eight (8) feet. Trees should have a trunk caliper of 2 inches and be in 25-gallon pots. Field-grown material should have a ball diameter of at least 28". ~~Trees to meet Code requirements shall not be in containers larger than 25 gallons or have a trunk caliper greater than 2.5".~~ Trees should have healthy root systems that have been pruned according to the Florida Grades and Standards best practices.

(3) *Tree Planting and Mulching Specifications.* Trees should be planted in holes at least twice the diameter of the rootball. The final level of the newly planted tree should place the root:trunk union between .5 and 1.5 inches above grade. Mulch should be no deeper than 1" over the top of the rootball. A tree ring to hold water in place should be constructed to overlap the meeting of the edge of the rootball and surrounding soil. This tree ring and an area 1 foot outside it should be covered with 4" of mulch.

(4) *Utility:Tree compatibility.* Lighting fixtures, transformer boxes, fire hydrants, power, cable television or telephone lines, sewer or water pipes, or any other existing or proposed utility facilities and associated appurtenances ~~overhead or underground utility service,~~ shall be located and designed to provide adequate service in the presence of landscape materials when such landscape reaches maturity. ~~None of the aforementioned~~

types of utility infrastructure shall be placed in landscape areas identified for trees planted to meet design requirements identified in 30-251, 30-252, or 30-253 unless the size of the tree island or buffer has been doubled to enclose a minimum of 280 sq ft for tree islands or to create buffers a minimum of 18' wide. For existing mature trees, reasonable efforts shall be made to install utility service without removing such trees. Excavation to install utility services shall remain at least 5' outside the root plate of any High Quality Heritage tree. No shade tree that exceeds 40 feet in height at maturity shall be placed within 15 feet of any overhead utility. Fire hydrant connections and building fire connections shall not be obstructed by plant material, nor shall dangerous plants such as Spanish bayonet be located within 15 feet of such facilities. Small, low-growing shrubs (10 inches or less in height) may be planted to soften visual impact of these facilities.

(5) *Native Trees.* At least 75% of trees on the required landscape plan should be native species. Cultivars of native trees are considered native species.

(6) *Environmental suitability.* The use and location of all landscaping materials shall be compatible with the soil and light needs of the proposed plant materials. At the time of the required pre-purchase on-site inspection with the City Arborist or designee, substitution of plant species may be approved due to environmental unsuitability of the specified plant materials or due to as-built infrastructure conditions on the site. If changes will occur for more than 25% of the trees on the site, then the plans must be re-lined with the Community Development and Building Inspections Departments. Tree substitutions should be for trees that reach the same maximum height at maturity.

(7) *Surface treatments.* The use of grass, lawn, or turf shall be minimized to conserve water. All sod shall be inspected prior to purchase and installation to determine it is and certified as free of noxious weeds by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry. All landscaped areas not covered with vegetation shall be covered with organic mulches. No plastic surface covers shall be used.

(8) *Walls, fences and berms.* All required walls shall be of solid masonry construction and shall have a minimum height of six (6) feet, and shall be installed in such a manner so as not to disturb existing vegetation or conflict with existing utility infrastructure, or the character of the buffer strip. Walls must have cantilevered suspension construction over the root plate of high quality Heritage trees in order to minimize damage to critical tree roots. Fences shall be opaque and constructed to a height of six (6) feet of pressure treated wood that meets the government regulations for safety and toxicity. Fences and walls shall be screened on each side with vegetation so that at least one-third or more of each face of the fence has landscaping. A berm may be substituted for a wall if the berm attains at least four (4) feet and has plant material of at least two (2) feet. No berm shall have a slope of greater than one (1) to three (3). No berm shall be constructed within the defined root plate area of any Heritage or Champion tree to be preserved on the site. Berms constructed within driplines of trees shall have aeration systems that convey oxygen to roots. High Quality Shade Trees should be

planted on the equivalent of 35' centers at varying elevations on berms, unless they would duplicate trees planted to comply with buffer or retention basin landscaping.

(b) *Replacement of dead material.* All trees planted in compliance with an approved site plan or as mitigation for the removal of regulated trees shall be maintained in good health. Within six (6) months of a determination by the City Arborist or other city-designated qualified specialist that a required tree or plant is dead or severely damaged or diseased, the tree or plant shall be replaced by the owner/developer in accordance with the standards ~~specified in this article.~~ in section 30-256 (Replacement Stock). If replacement trees die repeatedly, the City Manager or designee may require that additional trees of high quality shade species be planted on the site.

(c) *Pruning.* All trees may be pruned to maintain shape and promote their shade-giving qualities and to remove diseased or dying portions in areas where falling limbs could be a hazard to people or property. Tree pruning shall be done in accordance with the latest revision of the American National Standard for Tree Care Operations "Tree, Shrub and Other Woody Plant Maintenance" (ANSI A300) and "Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush—Safety Requirements" (ANSI Z133). No more than 25% of the crown should be removed at one time. On young trees, limb removal should leave no more than 33% of the trunk bare of branches. So that shade trees can grow with sturdy structure, the top branch or leader should never be removed. Hooks should never be used to climb trees unless the tree is being taken down; climbing trees that will be preserved with hooks. Mature trees overgrowing vehicular use areas shall be pruned to allow the passage of emergency vehicles. Excessive pruning or pollarding of trees into round balls of crown or branches, which results in an unnecessary reduction of shade and promotes weak branch attachments shall be prohibited and may require additional shade trees to be planted on the site.

Sec. 30-266. Excluded areas.

The following are excluded areas as referred to in this subdivision:

Commence at the southwest corner of the intersection of N.E. 2nd Avenue and N.E. 3rd Street as the point-of-beginning; thence run south along the west right-of-way line of said N.E. 3rd Street to its intersection with the south right-of-way line of East University Avenue; thence run east along said south right-of-way line to its intersection with a northerly extension of the centerline of Sweetwater Branch; thence run South along said centerline to its intersection with an easterly extension of the north right-of-way of S.E. 2nd Place; thence run west along said easterly extension and the north right-of-way line of said S.E. 2nd Place to its intersection with the northerly extension of the east property line of Lot 1 of Oak Hall Plat, as recorded in Deed Book "Q", pages 342 and 343 of the Public Records of Alachua County, Florida; thence run south along said northerly extension and along the east line of said Lot 1 to the north line of Lot 7 of said subdivision; thence run west a distance of 12 feet more-or-less; thence run south parallel to the east line of Lots 7, 8, 11 and 12 of said Oak Hall Plat to the north right-of-way line of S.E. 4th Avenue; thence run west along said north right-of-way line to its intersection with the east right-of-way line of S.W. 1st Street; thence run north along said east right-of-way line to its intersection with the south right-of-way line of S.W. 3rd Avenue;

thence run west along said south right-of-way line to its intersection with a southerly extension of the east right-of-way line of S.W. 2nd Street; thence run north along said east right-of-way line to its intersection with the south right-of-way of S.W. 2nd Avenue; thence run west along said south right-of-way line to its intersection with a southerly extension of the east right-of-way line of S.W. 3rd Street; thence run north along said southerly extension and the east right-of-way line of S.W. 3rd Street to its intersection with the south right-of-way line of West University Avenue (also known as State Road No. 26); thence run north to the north right-of-way line of said West University Avenue lying also at a point on the east right-of-way line of N.W. 3rd Street, thence run northerly, following the east right-of-way line of said N.W. 3rd Street to the southeast corner of N.W. 3rd Street and N.W. 2nd Avenue; thence run east along the south right-of-way line of N.W. 2nd Avenue to its intersection with the east right-of-way line of North Main Street (also known as State Road No. 329); thence run north along said east right-of-way line to the southeast corner of said North Main Street and N.E. 3rd Avenue; thence run east along the south right-of-way line of N.E. 3rd Avenue to the west right-of-way line of N.E. 1st Street; thence run south along said west right-of-way line of N.E. 1st Street to its intersection with the south right-of-way line of N.E. 2nd Avenue; thence run east along said south right-of-way line to the southwest corner of N.E. 2nd Avenue and N.E. 3rd Street, being the point-of-beginning.

CENTRAL CITY DISTRICT LANDSCAPE EXEMPT AREA

Within this exempt area, the Code provisions regarding High Quality Heritage and Champion Trees as set forth in Sec. 30-257 and 30-258 shall apply.

APPROVED GAINESVILLE TREE LIST IS INSERTED HERE.

Division 4. Relief and Enforcement

Sec. 30-310. Relief for reasonable or beneficial use.

(a) *Landscape and tree management.* As regards the provisions of the landscape and tree management sections of this article:

(1) *Generally.* In addition to the relief provisions of this chapter, and pursuant to the terms of article X, pertaining to the board of adjustment, the board of adjustment may grant variances to the landscape and tree management sections, based on demonstrated hardship, to the minimum 20 percent of areas devoted to landscape materials requirement of section 30-251.

(2) *Preserving existing trees.* The preservation of any existing regulated tree identified on the Gainesville Tree List as being a high quality shade species may be considered as a basis for the granting of a variance pursuant to the procedures established in article X.

Section 30-311 Violations, enforcement and penalty.

(c). *Landscape and tree management.*

(2) Performance standards for regulated trees shall be as follows:

a. *Purpose*

b. *Minimum requirements.*

1. A tree that was established in compliance with a development order but which has disappeared from the site or died must be replaced with a tree that

meets the conditions defined in Sec. 30-265. The species should be the same as specified on the approved landscaping plan. If a different species is desired, it must fill the required Code function. A small flowering tree cannot replace a High Quality Shade Tree.

2. For trees planted to achieve inch-for-inch mitigation of trees removed without a permit, the illegally removed tree or trees should be replaced with trees from the high quality shade category in the Gainesville Tree List. Pines and palms are not allowed as replacement trees. Replacement trees should be planted on site until all locations that would be required by Code to bring the landscaping into compliance with current standards have been filled. The remainder may be established on other appropriate sites within the City limits or may be given to the City tree-planting program for establishment on public property.

3. All replacement trees shall be nursery-grown trees. They may be balled and burlapped, tree spaded, or containerized.

4. Replacement trees shall be located in approximately the same location as the tree that was removed or has disappeared from the site, unless such location would be unreasonable under the circumstances, in which event the location shall be determined by the enforcing official or other appropriate body.

5. Replacement trees may only be required to be planted during the months of November through March, unless the trees are containerized or the site is served by an automatic irrigation system.

6. The total sum of the caliper inches of replacement trees shall equal, at a minimum, to the total sum of the caliper inches of the regulated trees which were illegally removed. If a tree removed without a permit was a Heritage tree as defined in Sec. 30-258, then financial mitigation should be required in accordance with that section.

Appendix A.

Special Area Plan for College Park. Section 3. Ordinance 3779 0-92-30.

Regulations For The College Park Neighborhood Plan

Build-to Line.

Intent. The intent of a build-to line is to define the relationship between the building facade and the street and streetside sidewalk. The distance between the buildings and the street edge should preserve the neighborhood as a place sheltered by large trees by allocating sufficient space for the root systems and crowns of shade trees at maturity. Building facades along a block face should be arranged to form a street edge that frames the public realm, while retaining sufficient width for people to walk, and sufficient space to provide formal landscape created by shade trees. If a High Quality

Heritage tree occurs on within 20' of the public right-of-way, it should be preserved and the build-to line adjusted so the tree is preserved with no disturbance to the tree root plate. The street edge shapes the public realm to provide a sense of comfort and security for the public space. Buildings pulled up to the street sidewalk have more of a human scale, and allow for the construction of canopies which create shade and shield the pedestrian from wet weather.

In general, the goal of a commercial build-to line should be that the width of the street corridor (as measured by opposing building facades) and the height of the buildings shall be at least a ratio of 1:1 to 3:1. (The width should be no more than 3 times the height).

Standard. A build-to line range is specified by building lot type.

Stoops, stairs, chimneys, and bay windows are allowed to extend beyond the build-to line as long as they do not exceed more than 25 percent of the front façade, **do not interfere with the space required for the required shade trees at 20 years of age**, and do not encroach into the public right-of-way. Open porches, projecting signs, balconies, arcades, and awnings and outdoor cafes may also extend beyond the build-to line. However, at least 5 feet of unobstructed sidewalk width and room for **the** required tree strip must be retained.

Landscape Standards:

Total Number of Trees Required. **Trees must be planted to meet the landscaping requirements for surface parking lots, drainage retention areas, adjacent use buffers, and street trees planted on private property. Where existing buildings to be preserved are too close to the public right-of-way to accommodate the required separation distances elaborated below for shade trees, the City Manager or designee may allow the trees to be planted in the public right-of-way. Alleys are exempt. The streetscape design proposal requires:**

- 1. The trees shall be from the high quality shade category on the Gainesville Tree list.**
- 2. They shall be planted at a distance of at least 10 feet from edge of the footer of any building and 3 feet from any pavement.**
- 3. The roots of each tree shall have a minimum of 180 sq ft at the surface and to a depth of at least 4 feet. The soil shall meet the conditions of rootzone media. No paving (including but not limited to sidewalks, building footers, or porches), or utility infrastructure of any type shall be allowed to encroach on this area.**
- 4. Neither shall there be encroachment above ground (including but not limited to balconies, bay windows or porches) within 25 feet on any side of any shade tree planted to meet these requirements, except the side of the tree adjacent to the building. In no case shall the distance between the building and a shade tree be less than 10 feet plus the width of the building footer.**
- 5. At a minimum the total number of the required street frontage trees shall be to one shade tree for every 50 feet. The minimum spacing shall be 25 feet and the maximum 60 feet. The maximum may be exceeded only to accommodate the preservation of a High Quality Heritage tree.**
- 6. To accommodate the preservation of High Quality Heritage trees in good condition growing on or within 20' of the public right-of-way, the number of required**

trees to be planted should be reduced so no young trees are planted in the area under the canopy.

6. Existing trees of high quality species should count toward the total number of trees required.

7. The City Manager or designee shall approve which existing trees may count towards the total required trees and the extent to which the preservation of a High Quality Heritage tree shall reduce the number of required trees.

Street trees. Because future infrastructure needs of the community may necessitate the loss of the required shade trees if they are planted in the public right-of-way, the required shade trees shall be planted on the private property being developed or redeveloped. That the City may plant or preserve trees between the curb and sidewalk shall not influence the requirements for the shade trees on the private property adjacent to the street.

Quality of Trees. All trees planted shall be Florida Grade #1 or better, with a trunk caliper of at least 2 inches in a 25-gallon container. Species must be chosen from the list of trees in the Approved Tree List in the Land Development Code. Each shade tree shall have a minimum root area of 180 square feet at and below grade to a depth of 4 feet. Pavement adjacent to trees should be constructed using the recommended best practice for avoiding conflicts between tree roots and hardscape.

Encroachments.

1. Balconies shall be permitted to encroach forward of the build-to line but must not interfere with the expected canopy of the required shade trees at 20 years as identified on the Gainesville Approved Tree List. This shall apply to balcony construction regardless of their location on the property (front, rear, or sides.) Balconies shall be a minimum of 9 feet above grade and 18 inches behind the face of the curb.
2. Stoops and open porches shall be permitted to encroach forward of the build-to line, and shall not encroach into the public right-of-way, but they shall not encroach in areas set aside for tree root preservation (180 sq ft at the surface for each required tree).
3. For encroachment of balconies into the public right-of-way, permission (such as an easement or other appropriate property right) is required from the public entity responsible for right-of-way.
4. There shall be no encroachment in the area reserved for the Tree Root Plate of any preserved tree.

Landscape Regulations for New Construction and Renovation Planting on Public and Private Property

Large Trees:

Ulmus alata (Winged Elm)

Yellow fall color

Quercus austrina (Bluff Oak)

Scarlet fall color

Magnolia grandiflora (Southern Magnolia)

Evergreen
Quercus virginiana (Live Oak)
Evergreen
Fraxinus Americana (White Ash)
Yellow fall color

Medium Trees:

Acer **barbatum** (Florida Maple)
Red fall color, red spring flowers
Pinus glabra (Spruce Pine)
Evergreen
Ilex opaca, I. cassine, or I. X attenuate cultivars
Holly trees

Small Trees:

Prunus angustifolia or P. umbellata (Wild Plum)
White flowers in early spring, sunny or part shade
Osmanthus americanus (Wild Olive)*
Evergreen, shady sites
Lagetroemia indica cv. Natchez (White Crape Myrtle)
White flowers, yellow fall color

Hedge (Sun):

Ilex crenata 'Helleri' (Dwarf Japanese Holly)
Ilex cornuta 'Rotunda' (Dwarf Chinese holly)
Juniperus conferta (Shore juniper)
Viburnum obovatum (Walter's Viburnum)

Hedge (Shade):

Rhododendron indicum
Cultivars (vary in height)

Urban Regulations For New Construction--Type I

Instructions. This building type includes shopfronts, offices, apartments or mixed-use buildings with apartments.

Building Placement.

1. Shopfront and Office buildings 0 feet to 12 feet from the front property line, 0 feet to 10 feet from the side street property line. The City Manager, designee or appropriate board shall set build-to line location to ensure enough room for sidewalks and **required shade** trees on **private property adjacent to the public right-of-way and buffers**. If the block is only one lot deep, new buildings should be oriented towards the street of greater hierarchy, known as the Primary Frontage Street.

Side Setback.

1. No side setback is required when next to existing or designated Shopfront buildings, Offices, Townhouses or Civic buildings.
2. A minimum of 12 feet when next to existing or designated Apartments or Houses.

**Urban Regulations For New
Construction--Type II**

Instructions. This building type includes houses, apartments or townhouses.

Building Placement.

1. Townhouses and Apartments: 10 feet to 20 feet from the front property line, 5 feet to 10 feet from the streetside property line for the end unit. The City Manager, designee or appropriate reviewing board shall set build-to line location to ensure enough room for sidewalks and required shade trees on the private property. Rowhouse lot widths may be as narrow as the rowhouse.
2. Houses: 5 feet to 25 feet from property line, 5 feet to 10 feet from the side property line. City staff shall set build-to line location to ensure enough room for sidewalks and required shade trees on the private property.
3. Accessory structures shall be a minimum of 5 feet from rear property line and 8 feet from side property line unless more space is necessary to provide a required adjacent use buffer or required shade trees as defined above.

**Urban Regulations For New
Construction--Type III**

Instructions. This building type includes houses.

Building Placement.

1. Houses: Five feet to 25 feet from property line. The City Manager, designee or appropriate reviewing board shall set build-to line location to ensure enough room for sidewalks and required shade trees on the private property.
2. Accessory structures shall be a minimum of five feet from rear property line and five feet from side property line unless more space is necessary to provide a required adjacent use buffer or required shade trees as defined above.

Special Area Plan

Exhibit B. Special Area Plan for the Central Corridors

(d) Exceptions

In addition to the exceptions that may be granted above, exceptions to the build-to line may be granted to preserve a High Quality Heritage tree or if the proposed construction includes an existing structure which has been designated as a historic property or has historic significance because it is potentially eligible for listing on the national or local register, and maintaining a viewshed of the existing historic structure is in the public interest.

k) Build-to line.

- (1) Intent. The intent of the build-to line is to pull the building facade close to the street and streetside sidewalk while still allowing space for street trees. Because of the

transitional nature of these corridors, the *build-to line* is more flexible than in the Traditional City. The *build-to line* allows new buildings to be aligned with existing buildings, or, in the future, allows a building to be built in front of the building and allows this future building to abut the streetside sidewalk. Over time, building *facades* along a block face should be aligned to form a *street edge* that frames the public realm, while retaining sufficient width for people to walk, and sufficient space to provide a *formal landscape* created by street trees, each of which has at least 180 sq ft of root room at the surface and to a depth of at least 6 feet. The soil should meet the conditions of rootzone media except in areas designated by the Public Works Department where procter density requirements must be met to support vehicles parked on the sidewalk. In these areas, the soil should approximate to the greatest extent possible the conditions of rootzone media. Over time, the intent is to pull building *facades* close to the street and streetside sidewalk, frame a comfortable public realm, and prevent overly large setbacks. The plan for street trees should not place them closer than 10' to the footer of the building face or 3' from any pavement.

Overly large setbacks are inconvenient and unpleasant for pedestrians. They can significantly increase walking distances from the public sidewalk. They prevent the pedestrian on the public sidewalk from enjoying building details and activity within the building. Similarly, overly large setbacks contribute to sign proliferation and visual blight because a building set back a large distance often needs to "shout," with signs, at passing motorists, transit users, bicyclists and pedestrians in order to be noticed. Buildings pulled up to the street sidewalk have more of a human scale and allow for the construction of canopies which shield the pedestrian from wet weather.

(2) *Standard*. The *build-to line* shall be that which achieves the above-stated intent, as determined by the appropriate reviewing board, City Manager or designee, and shall apply even if the *facade* faces a street outside of the overlay affected area. Building walls along a street that is not within the overlay affected area that are entirely more than 250 feet from the regulated corridor shall be exempt from the *Build-to Line* standard. If a portion of the wall along a street is within 250 feet, all of the wall is affected by the standard. In most instances, the *build-to line* shall be 80 feet from the curb or edge of pavement for at least 70 percent of the building *facade*. Factors to be considered for variations to this *build-to line* shall be as follows:

- When considering a closer *build-to line*, the building *facade* shall, in most instances, be no closer than 14 feet from the sidewalk or edge of pavement along an arterial, 12 feet along a collector, and 11 feet along a local street, in order to leave space for adequate sidewalks and tree strips (see Map A). If a High Quality Heritage tree grows within 20' of the public right-of-way, the development plan should accommodate its preservation. The new construction shall not require pruning of more than 20% of the canopy of the tree or any grade change within the tree root plate area.
- When the proposed building is *adjacent* to existing buildings on an abutting property the *facade* shall, in most instances, be built at the *facade* of the *adjacent* building closest to the street, or the 80-foot *build-to line*, whichever is closer to the street. In all cases, however, space shall be created for street trees of high quality species on private property with each tree having a minimum space afforded to it belowground of 180 sq ft. This may be accomplished by pervious paving with tree-well openings of at least 18 square feet to accommodate trunk growth.

- The appropriate reviewing board, **City Manager** or designee can approve a *facade* closer to the curb or edge of pavement than the previously listed distances so that a consistent *street edge* of *adjacent* buildings can be maintained.
 - Buildings on corner lots or buildings on more than one street *frontage* shall, in most instances, have the 80-foot *build-to line* requirement on the more primary street *frontage* area.
 - The appropriate reviewing board, **City Manager** or designee may approve a greater *build-to line* (farther from the street) than the required *build-to* line when site constraints such as significant tree features or significant design features warrant it. If such approval by the appropriate reviewing board, **City Manager** or designee is granted, the front yard area must be landscaped to provide shade for pedestrians with tree plantings and to establish the *street edge* articulation.
 - The standards described in this subsection shall supersede any landscape buffer width requirements found in Article VIII of the Land Development Code for *frontage* areas, except in front of surface parking lots.
- Stoops, stairs, chimneys, and bay windows are allowed to extend beyond the *build-to line* as long as they do not exceed more than 25 percent of the front *facade*. Open porches, projecting signs, balconies, *arcades*, awnings and outdoor cafes may also extend beyond the *build-to line*. However, at least 5 feet of unobstructed sidewalk width and room for any required tree strip must be retained. *Build-to*

Special Area Plan University Heights. Section 6. Ordinance 990733 0-00-880. Appendix A, Section 6.

Exhibit A. Special Area Plan
for University Heights

- I. *Intent*. The City of Gainesville seeks to promote and control preservation and revitalization in this traditional neighborhood. History shows that a few traditional urban design conventions will generate building types and neighborhood conventions will generate building types and neighborhood forms which allow profitable, positive infill and change which strengthen property values and appearance, and which offer a high quality of life. These conventions are derived from many sources in planning literature including: *Civic Art* by Hegeman and Peets, *Great Streets* by Allan B. Jacobs, *The New Urbanism* by Peter Katz, and *AIA Graphic Standards, 9th Edition*. This Code establishes standards for land development in order to:
1. Preserve and extend the historic neighborhood character through the design and placement of building types and public spaces.
 2. Create high-quality street spaces by using **shade trees of high quality species and** buildings to form a pleasant, convenient and safe environment designed for pedestrians, bicyclists, public transit and motorists.
 3. Enhance the viability of local businesses and reduce car travel demand by focusing growth in appropriate locations.
 4. Provide a measure of predictability to property owners and occupants about what may be built on their land or their neighbors' property, yet allow for a market-driven mixture of land uses.
 5. Encourage a wide range of building types and sizes that will offer a measure of self-sufficiency and sustainability, and adapt gracefully to change over time.

6. Make the neighborhood a pleasant place to live, that will attract a mix of long-term residents reflecting the composition of the **University** community and adjacent neighborhoods.

II. Administration

A. *Required Compliance.* All new commercial, office, mixed-use and multi-family development (including single-family attached rowhouses) shall be required to comply with this Special Area Plan.

B. *Waiver from Compliance.* A Waiver from Compliance may be considered for applications that do not follow all aspects of the Special Area Plan, but offer exceptional benefits to the community. Applicants may request a Waiver from the design standards, but no waiver is allowed for uses. In granting a Waiver, the City Manager, designee, or appropriate reviewing board must find by substantial competent evidence that:

1. The proposed development contributes to, promotes and encourages the improvement of the **University Heights** Neighborhood and catalyzes other development as envisioned in the **University Heights** regulations.

2. The proposed development abides by all rules in this code other than those specially excepted. Special limitations apply to large footprint free-standing buildings (greater than 20,000 sq ft on the first story); see section IV.(I.) for these limitations.

3. The proposed development meets any reasonable additional conditions, restrictions or limitations considered deemed necessary or desirable by the City Manager, designee, or appropriate reviewing board, in order to preserve and promote the intent of the **University Heights** Special Area Plan.

4. The applicant proves an undue hardship, owing to conditions peculiar to the existing structure and not the result of the action of the applicant, would result from the strict adherence to these standards because:

a. The structure is officially designated as historically significant and these standards conflict with standards established for the preservation of historic structures, or;

b. The application of these standards would result in inconsistency of proportion and scale with the existing structure, or;

c. The application of these standards would result in the project being made financially impossible.

C. *Effect of Classification.* The **University Heights** Special Area Plan is applied as an Overlay Zoning District. If the provisions of the Special Area Plan conflict with the underlying zoning, the provisions of the Special Area Plan shall prevail. The effect of the classification is that the Special Area Plan is the applicable set of regulations. The regulations of the underlying zoning district and all other applicable regulations remain in effect and are further regulated by the Special Area Plan. Where the Special Area Plan addresses a requirement, the underlying zoning shall not apply. The underlying zoning and provisions of the Land Development Code shall apply when the Special Area Plan does not address a requirement. The **University Heights** Special Area Plan shall supercede any floor area ratio requirements in the Land Development Code.

III. Definitions

Appurtenances means architectural features not used for human occupancy consisting of: spires, belfries, cupolas or dormers; silos; parapet walls, and cornices without windows; chimneys, ventilators, skylights, antennas and screened mechanical equipment.

Arcade Building means a building with a ground level passageway through a part of the building. The passage is covered and lined with shops or booths. The passage may be more than one story in height with projecting balconies and walkways.

Awning means an architectural projection roofed with flexible material supported entirely from the exterior wall of a building.

Balcony means a porch connected to a building on upper stories supported by either a cantilever or brackets.

Breezeway means a freestanding colonnade connecting 2 or more buildings.

Catwalk means a balcony like walkway which is cantilevered or supported by columns along the side of a building. A catwalk provides access to interior spaces inside the building.

Colonnade or Arcade means a covered, open-air walkway at standard sidewalk level attached to or integral with the building frontage; the structure overhead is supported architecturally by columns or arches along the sidewalk.

Dwelling Area means the total internal useable space on all stories of a structure, not including porches, balconies, terraces, stoops, patios, or garages.

Expression Line means a molding or cornice extending or offset a minimum of 3 inches, from the surface plane of the building wall. Expression Lines delineate the transition between the story levels.

Frontage Street means the street in front of a property to which the front facade and main entrance is oriented.

Front Property Line means the line that delineates private ownership facing the street.

Garden Wall means a freestanding wall along the property line dividing private areas from streets, alleys, and or adjacent lots.

Liner Building means a building built in front of a parking garage, cinema, supermarket, etc., to conceal large expanses of blank wall area and to face the street space with a facade that has doors and windows opening onto the sidewalk (see Item IV.(G.)(3)).

Lot Frontage means the property line adjacent to the frontage street.

Marquee means a permanently roofed architectural projection, the sides of which are vertical and are intended for the display of signs, which provides protection against the weather for the pedestrian, and which is supported entirely from an exterior wall of a building.

Outbuilding means a building or structure subordinate to the principal building, used for purposes customarily incidental to the main or principal building, and located on the same lot or set of attached lots there. Outbuildings can be used as residential dwellings.

Parapet means a low wall or barrier built above the cornice of a building, whether built with a sloped or flat roof. A parapet is typically of solid construction and may be broken with crenulations. When corbelled out from the surface of the wall it crowns, parapets may take the place of a cornice.

Primary Street or Space means the street that a lot fronts. At squares and street intersections the larger, more important is the primary street.

Principal Plane means vertical plane which corresponds to the largest front facade of the building.

Private Outdoor Space means the square footage of a lot that is not occupied by buildings, swimming pools, or parking lots. Impervious areas such as decks, patios,

terraces, walkways and pavement surrounding a pool shall be considered as private outdoor space.

Property Line means the line which delineates private ownership.

Rowhouse is one of a group of 3 or more attached dwelling units divided from each other by a common wall and each having a separated front entrance from the outside of the at ground level.

Stoop means a small platform, entrance stairway at a house door, or both, covered by a secondary roof or awning. The stoop projects from the primary building plane. Catwalks or breezeways are not considered stoops.

Storefront means building frontage for the first story usually associated with retail uses.

Story means that portion of a building included between the upper surface of a floor and upper surface of the floor or roof next above.

Street trees means trees established on private property adjacent to any streets along which construction shall occur. The species are to be from the “high quality shade” category on the Gainesville Approved Tree List.

Structured Parking means layers of parking stacked vertically.

IV. General Provisions

A. *Facade Requirements.* Building facades shall have windows, sills, lintels, expression lines and a cornice. The front facade of the building is also required to have its primary entrance face the street. Main Street Shopfront buildings do not require sills or lintels on first story Shopfront windows that display merchandise. On attached building types such as Shopfront buildings or Rowhouses, the sides located on interior property lines do not require windows, expression lines, or cornices.

Expression lines are required on stucco and brick buildings.

Front entrances shall be required on all buildings, and, for nonresidential buildings, a minimum of 50% glazing at the first story level shall be required on all street facades (for each story facing streets above the first story, 15% to 70% of its facade shall consist of glazing). For multi-family residential, a minimum of 30% glazing at the first story level shall be required on all street facades.

On detached building types, windows are required on the interior sides on all stories of all structures set back greater than 3 ft from the side property line. A minimum of 10% glazing is required on all stories.

Detailed facade requirements are specified in the Building Types section.

B. *Outbuildings:* Outbuildings are permitted as parking garages, apartments, storage space, and trash receptacles. Outbuildings shall be located at the rear of the lot (or at minimum sit behind the front plane of the principal structure).

C. *Alleys:* Existing alleys and alley rights-of-way are prohibited from being removed or vacated, except when the City Commission determines that the alley no longer serves a public purpose.

L. Landscape Standards:

Landscape Standards:

Total Number of Trees Required Trees must be planted to meet the landscaping requirements for surface parking lots, drainage retention areas, adjacent use buffers, and street trees planted on private property. The result will be high quality large shade trees on private property shading all thoroughfares. Alleys are exempt. Where existing buildings to be preserved are too close to the public right-of-way to accommodate the required separation distances elaborated

below for shade trees, the City Manager or designee may allow the trees to be planted in the public right-of-way. Alleys are exempt. The streetscape design proposal requires:

1. The trees shall be from the high quality shade category on the Gainesville Tree list.

2. They shall be planted at a distance of at least 10 feet from edge of the footer of any building and 3 feet from any pavement.

3. The roots of each tree shall have a minimum of 180 sq ft at the surface and to a depth of at least 4 feet. The soil shall meet the conditions of rootzone media. No paving (including but not limited to sidewalks, building footers, or porches), or utility infrastructure of any type shall be allowed to encroach on this area.

4. Neither shall there be encroachment above ground (including but not limited to balconies, bay windows or porches) within 25 feet on any side of any shade tree planted to meet these requirements, except the side of the tree adjacent to the building. In no case shall the distance between the building and a shade tree be less than 10 feet plus the width of the building footer.

5. At a minimum the total number of the required street frontage trees shall be to one shade tree for every 50 feet. The minimum spacing shall be 25 feet and the maximum 60 feet. The maximum may be exceeded only to accommodate the preservation of a High Quality Heritage tree.

6. To accommodate the preservation of High Quality Heritage trees in good condition growing on or within 20' of the public right-of-way, the number of required trees to be planted should be reduced so no young trees are planted in the area under the canopy.

6. Existing trees of high quality species should count toward the total number of trees required.

7. The City Manager or designee shall approve which existing trees may count towards the total required trees and the extent to which the preservation of a High Quality Heritage tree shall reduce the number of required trees.

Balconies and overhangs may be approved over the required street buffers only if they will not interfere with the tree canopy as identified on the Gainesville Approved Tree List at 20 years

Street trees. Because future infrastructure needs of the community may necessitate the loss of the required shade trees if they are planted in the public right-of-way, the required shade trees shall be planted on the private property being developed or redeveloped. That the City may plant or preserve trees between the curb and sidewalk shall not influence the requirements for the shade trees on the private property adjacent to the street.

TABLE INSET:

Note:

1. Appurtenances may extend beyond the height limit.
2. Building fronts ...

3. A cornice ...
4. A parapet ...
5. An expression line
6. The City Manager, designee or appropriate reviewing board will set build-to line location to accommodate sidewalks and street trees. **High Quality Heritage trees within 20' of the public right-of-way should be preserved.**
7. Courtyard buildings are permitted.

Same for Row House, Office Building

Build-to Line.

Intent. The intent of a build-to line is to **define the relationship between the building facade and the street and streetside sidewalk. The distance between the buildings and the street edge should preserve the neighborhood as a place sheltered by large trees by allocating sufficient space for the root systems and crowns of shade trees at maturity. Building facades along a block face should be arranged to form a street edge that frames the public realm, while retaining sufficient width for people to walk, and sufficient space to provide formal landscape created by shade trees. If a High Quality Heritage tree occurs on within 20' of the public right-of-way, it should be preserved and the build-to line adjusted so the tree is preserved with no disturbance to the tree root plate.** The street edge shapes the public realm to provide a sense of comfort and security for the public space. Buildings pulled up to the street sidewalk have more of a human scale, and allow for the construction of canopies which create shade and shield the pedestrian from wet weather.

In general, the goal of a commercial build-to line should be that the width of the street corridor (as measured by opposing building facades) and the height of the buildings shall be at least a ratio of 1:1 to 3:1. (The width should be no more than 3 times the height).

Standard. A build-to line range is specified by building lot type. Stoops, stairs, chimneys, and bay windows are allowed to extend beyond the build-to line as long as they do not exceed more than 25 percent of the front façade, **do not interfere with the space required for the required shade trees at 20 years of age,** and do not encroach into the public right-of-way. Open porches, projecting signs, balconies, arcades, and awnings and outdoor cafes may also extend beyond the build-to line. However, at least 5 feet of unobstructed sidewalk width and room for **the** required tree strip must be retained.

Encroachments.

1. Balconies shall be permitted to encroach forward of the build-to line **but must not interfere with the expected canopy of the required shade trees at 20 years as identified on the Gainesville Approved Tree List. This shall apply to balcony construction regardless of their location on the property (front, rear, or sides.)** Balconies shall be a minimum of 9 feet above grade and 18 inches behind the face of the curb.

2. Stoops and open porches shall be permitted to encroach forward of the build-to line, and shall not encroach into the public right-of-way, **but they shall not encroach in areas set aside for tree root preservation (180 sq ft at the surface for each required tree).**
3. For encroachment of balconies into the public right-of-way, permission (such as an easement or other appropriate property right) is required from the public entity responsible for right-of-way.
4. **There shall be no encroachment in the area reserved for the Tree Root Plate of any preserved tree.**

PART II CODE OF ORDINANCES

Chapter II Administration, Article V Boards Commissions

DIVISION 12. TREE BOARD OF APPEALS

Sec. 2-430.16. Creation; composition; appointment; term of members; filling of vacancies.

Division 12, Sec. 2-430.16. (a) The tree board of appeals shall consist of three (3) members nominated by the tree advisory board and appointed by the **City Commission**. Any candidate for the tree board of appeals shall be qualified in arboriculture. The board is authorized to hear appeals from any order, decision, or determination made by the **City Arborist or designee with respect to the removal of trees, the protection of trees during development and construction, or the interpretation of the tree appraised value as defined in the Land Development Code Article II: Sec 30-23 Definitions with respect to the mitigation requirements for Heritage trees under Sec. 30-258.** Appeals shall be filed with the **City Arborist**. The tree board of appeals shall apply standards and considerations **with respect to trees as found in Chapter 30, the Land Development Code.** The board shall have authority to decide any question involving the interpretation of the **City Arborist's** order. Each member shall be appointed for a term of three years and shall remain in office until a successor has been appointed and qualified. Vacancies shall be filled for the unexpired term of any member whose office becomes vacant. Terms shall expire on January 1 of the year the term expires.

(b) *Schedule.* The terms and expiration of terms for the tree board of appeals are as follows: one term shall expire January 1, 1990; one term shall expire January 1, 1991; and one term shall expire January 1, 1992. After each term expires, appointments shall be made for three-year terms or for unexpired terms.

(Ord. No. 3529, § 1, 4-10-89; Ord. No. 3593, § 1, 1-22-90)

Sec. 2-430.17. Officers and rules.

The tree board of appeals shall elect a chairperson from its membership and adopt rules for the conduct of its affairs which shall be in full force and effect when approved by the commission.

(Ord. No. 3529, § 1, 4-10-89)

Sec. 2-430.18. Meetings.

(a) *Schedule.* The board shall meet when directed by the appropriate authority or within ten working days of the filing of an appeal. Special meetings may be held upon the call of the chairperson or upon the written request of any two members of the board. All

meetings shall be open to the public. The board shall keep minutes of its proceedings showing each member's absence, failure to vote, or vote, and shall keep records of its examinations and all other official actions which shall be filed immediately in the office of the board and which shall become public records.

(b) *Attendance.* Three board members must be present at the meeting. If one board member is unable to attend a specific meeting, an alternate, duly appointed by the chairperson of the tree advisory board, shall substitute for the aforementioned specific meeting only. Furthermore, only one substitute will be permitted at each meeting. (Ord. No. 3529, § 1, 4-10-89; Ord. No. 3593, § 2, 1-22-90)

Sec. 2-430.19. Powers and duties.

(a) *General.* The tree board of appeals shall have all the powers and duties prescribed by this division. The tree board of appeals shall adopt such rules and regulations as may be necessary or proper to the performance of its powers and duties hereunder, and may amend or repeal the same. The rules and regulations shall be approved by resolution of the **City Commission** prior to becoming effective.

(b) *Conditions and safeguards.* Upon reaching a decision, the board may attach such conditions and safeguards as may be required to protect the public health, safety, and general welfare. (Ord. No. 3529, § 1, 4-10-89)

Sec. 2-430.20. Decisions.

Every decision of the tree board of appeals shall be final and binding on all persons. All decisions of the board shall be in writing and indicate the vote upon the decision. A decision shall be rendered on all appeals within ten working days of the filing of the appeal.

(Ord. No. 3529, § 1, 4-10-89)

Sec. 2-430.21. Notification to adjacent property owners for errors by administrative officials.

Notification of any appeal of the arborist's decision shall be given to all owners of property within 100 feet of the premises which are involved in the appeal.

(Ord. No. 3529, § 1, 4-10-89)

Secs. 2-430.22--2-430.30. Reserved.

DIVISION 13. TREE ADVISORY BOARD

Sec. 2-430.31. Creation; composition; appointment; term of members; filling of vacancies.

The tree advisory board shall consist of five members who serve on the tree advisory board and are appointed by the **City Commission**. At least four members of the tree advisory board shall have knowledge of urban forestry. Each member shall be appointed for a term of three years and shall remain in office until a successor has been appointed and qualified. Vacancies shall be filled for the unexpired term of any member

whose office becomes vacant. Terms shall expire on January first of the year the terms expire. Notwithstanding provisions of the previous subsection, one term shall expire January 1, 1993, one term shall expire January 1, 1994, one term shall expire January 1, 1995, one term shall expire January 1, 1996, and one term shall expire January 1, 1997. After each of said terms expires, appointments shall be made for three-year terms or for unexpired terms.

(Ord. No. 3592, § 1(2-230), 1-22-90)

Sec. 2-430.32. Meetings; records.

The board shall meet when directed by the appropriate authority or on the second Thursday of each month. Special meetings may be held upon the call of the chairperson or upon the written request of any two members of the board. All meetings shall be open to the public. The board shall keep minutes of its proceedings showing each member's absence, failure to vote, or vote, and shall keep records of its examinations and all other official actions which shall be filed immediately in the office of the board and which shall become public records.

(Ord. No. 3592, § 1(2-231), 1-22-90)

Sec. 2-430.33. Duties.

The duties of the tree advisory board shall include:

- (1) To act as the technical information collector/exchange forum on tree issues where citizens need coordination of information from varied sources.
- (2) To clarify tree regulations that exist in the city's codes and ordinances and make them known to city residents.
- (3) To act on referrals from the **City Commission**.
- (4) To guide the creation of a master tree plan for the city.
- (5) To assist in the development of the goals and objectives for the city's comprehensive plan with respect to trees **and to review proposed changes to the Land Development Regulations regarding trees.**
- (6) To advise all departments of the city on tree issues.
- (7) To communicate general tree information and develop tree projects that would benefit the community.
- (8) **To determine species that qualify as High Quality Heritage Trees, to maintain a list of ratings that identify the relative value of trees in the urban forest as applied to calculating the appraised value of trees.**

Chapter 13 HOUSING AND COMMERCIAL BUILDING CODES

DIVISION 10. CARE OF PREMISES

Article II – Housing Code

Sec. 13-171. Insects, outdoor storage, trash, and yard maintenance.

(a) All premises shall be maintained so as to discourage the harboring and breeding of insects,

...

(e) It shall be the duty and responsibility of every owner and occupant to keep the premises of residential property clean, and to remove from the premises, upon notice from the code officer, the following:

- (1) All trash and garbage;

(2) Dead or hazardous trees that are standing or have fallen to the ground and that pose a hazard to neighboring properties, or which create a hazard to the safety or welfare of any occupant of the property (except the owner), or the inhabitants of the surrounding area, or any public property; and

(3) Dead tree limbs and vegetative debris that pose a hazard to neighboring properties, or which create a hazard to the safety or welfare of any occupant of the property (except the owner), or the inhabitants of the surrounding area, or any public property.

(4) *Tree Care Providers* should follow the pruning standards articulated in the latest revision of the American National Standard for Tree Care Operations “Tree, Shrub and Other Woody Plant Maintenance” (ANSI A300) and “Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush—Safety Requirements”(ANSI Z133). Tree workers shall not climb trees with spikes, unless the tree is being removed.

Article III – Commercial Building Code

Sec. 13-204. Standards for exterior property areas.

(a) *Sanitation.* All exterior property and premise shall be maintained in a clean, safe and sanitary condition. ...

(e) *Hazardous conditions.* It shall be unlawful for the owner or occupant to create, maintain, keep or allow the existence of any hazardous condition, equipment, facility, fixture, premises or building.

(g) *Tree Care Providers* should follow the pruning standards articulated in the latest revision of the American National Standard for Tree Care Operations “Tree, Shrub and Other Woody Plant Maintenance” (ANSI A300) and “Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush—Safety Requirements”(ANSI Z133). Tree workers shall not climb trees with spikes, unless the tree is being removed.

Scientific research supporting proposed changes:

Urban, James, FASLA Urban Trees and Soils – Absorbent soil Volumes Under Pavement for Rainwater Management and Healthy Tree Growth. Article scanned and in computer under Code Change. Crown spread of 800 sq ft, dbh 16” requires soil volume of 1000 sq ft, but no deeper than 30”.

Hermansen-Baez, Annie. 2008. Seeing the Houses through the Trees: The Wildland-Urban Interface in the South. *Compass Perspectives and Tools to Benefit Southern Forest Resources*. USDA.

<http://www.nahb.org/generic.aspx?genericContentID=19086> National Association of Home Builders – 15% property value improvement.
Tree Ordinance Development Guidebook, Joe Burgess. Georgia Forestry Commission.

Soil Damage from Compaction, Dr. Kim Coder. University of Georgia. Bulk density ratings comparing rooting areas vs. dead zones due to soil compaction.

http://www.forestry.iastate.edu/ext/roadside_tree_management/for00-007.pdf

High Quality Heritage tree species determined by Tree Advisory Board.

<http://www.treesflorida.com/pdf/GuidetotheNorthAmericanTreeFailureDatabasev1.15-15-06BW.pdf> International Tree Failure Data Base, E. Thomas Smiley, Bartlett Tree Research Lab; Nelda Matheny, Hortscience, Pleasanton, CA; Ned Clark, PhD. Hortscience, Pleasanton, CA. May 2006. Root plate – an area around the trunk of a tree, usually equal to 4 X the diameter inches of the trunk where there is a high concentration of buttress roots (primary lateral roots) and support roots.

Kim Coder, PhD., University of Georgia. Root plate is the zone of pedestal roots, zone of rapid taper, and roots under compression. On a 2' diameter tree, this zone would be at least 6' from the trunk and might be 10', depending on species and environmental factors.

http://www.forestry.iastate.edu/topics/community_forest/treesconst.html Root and soil damage is less obvious and may result in tree death or damage which may not be evident for as long as 8 to 10 years. University of Iowa publication.

Tree Care Industry Association

http://www.treecareindustry.org/Public/About_faq_treecare3.htm#2 **What causes construction injury? Our tree survived the construction without a scratch, yet it died four years after the construction. Why did this happen?** Construction injury is often a cumulative of many smaller injuries that occur during construction. Any root injury or disturbance is the most detrimental but other types of injury can also compound the problem. Since a tree may have been healthy before construction, it can take anywhere from 2 to 8 years for a tree to die as it slowly uses up its energy reserves to survive from year to year.

When fill is placed on the soil, tree roots initially remain at the original grade. They are subject to a condition of reduced soil aeration and increased moisture. Damage and death of some roots will occur as a result. Slowly the tree will attempt to grow new roots into the soil fill. Eventually these new roots will grow upwards into the fill to the point where they regain acceptable soil aeration and moisture conditions. If trees are to survive having fill placed over their roots, those roots must have adequate oxygen and drainage so that the tree can survive until the time that its own roots have satisfactorily grown into the new fill. This means the arborist must make some provision to allow air exchange between the roots and the atmosphere and be certain there is adequate drainage in the soil. Your tree care company may recommend the installation of a soil aeration system. Generally, this system will include a tree well. The goal of this system is to provide adequate aeration and drainage for the initial root system while new roots grow up through the fill soil to better aerated and drained soil.

http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/trees-new/text/tree_damage.html The damage that occurs during construction may not at first be obvious unless the tree's trunk was damaged. In most cases the tree appears healthy but produces little new growth. Stress symptoms caused by tree root damage may take 5 to 10 years to fully develop. The tree initially lives off of its stored reserves --- after the reserves are depleted and the tree is exposed to hot, dry weather the tree declines or dies rapidly. Often insects and disease will invade the weakened tree and lead to a

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[http://www.scgov.net/EnvironmentalServices/ResourceProtection/TreeProtectionFAQs.a](http://www.scgov.net/EnvironmentalServices/ResourceProtection/TreeProtectionFAQs.asp)
[sp](http://www.scgov.net/EnvironmentalServices/ResourceProtection/TreeProtectionFAQs.asp) *Grand Trees protected at 1.5 times canopy dripline.*