

Tree Preservation and Landscaping Ordinance

**TOWN OF SHARPSBURG
COUNTY OF COWETA
STATE OF GEORGIA**

PREAMBLE & FINDINGS

WHEREFORE, THE TOWN OF SHARPSBURG HEREBY ADOPTS, ORDAINS AND ENACTS THE FORGOING TREE PRESERVATION AND LANDSCAPING ORDINANCE AS FOLLOWS:

ARTICLE I

Sec. Purpose.

This tree preservation and landscaping ordinance has been developed to benefit the environmental and aesthetic quality of the town. The intent is to create an opportunity and promote preservation of the town's natural resources and grow in a way that will provide a healthy environment for the town's future. The purpose of this article is to provide standards for the preservation of trees as part of the land development process; to prevent massive grading of land, both developed and undeveloped, without provision for replacement of trees; and to protect trees during construction whenever possible in order to enhance the quality of life within the town. The regulations of this tree preservation and landscaping ordinance shall be the definitive, unless otherwise directed by the zoning ordinance or Town Code. The benefits derived from this ordinance include:

- a) Provide visual buffering and enhance beautification of the town;
- b) Moderation of storm water runoff, and improved water quality;
- c) Protect and attempt to enhance property values, thus safeguarding private and public investment;
- d) Protect the unique identity of the town by promoting native plants and the use of the town's
- e) signature plant palette;
- f) Control soil erosion;
- g) Reduction of some air pollutants and interception of airborne particulate matter;
- h) Preserve stands of trees and "specimen" trees; and
- i) Protect natural vegetation except where its removal is necessary for responsible property development or control of disease and infestation. This article shall serve to dissuade the unnecessary clearing of land and its disturbance, so as to preserve, insofar as possible, the

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natural and existing growth of vegetation, and to replace whenever possible the removed foliage with new vegetation.

Sec. 10-82. Definitions

The following words, terms and phrases, when used in this Chapter, shall have the meanings ascribed to them in the Section, except where the context clearly indicates a different meaning:

Adjoining land, lot, or parcel: A lot or parcel of land that shares all or part of a common lot line with another lot or parcel of land.

Aesthetic: The perception of artistic elements or elements in the natural or created environment that are pleasing to the eye.

Amenities: A natural or created feature that enhances the aesthetic quality, visual appeal, or makes more attractive or satisfying a particular property, place, or area.

Buffer:

1. Open spaces, landscaped areas, fences, walls, berms, or any combination thereof used to physically separate or screen one use or property from another so as to visually shield or block noise, light, or other environmental nuisance;
2. An area along some natural feature designated to protect and/or preserve the essential character of such feature and allow it to be maintained in an undisturbed and natural condition;
3. A natural undisturbed portion of a lot, except for approved access and utility crossings, which is set aside to achieve 100 percent visual barrier between the use on the lot and adjacent lots and/or uses. A buffer is achieved with natural vegetation, and must be replanted subject to approval of the town landscape architect when sparsely vegetated. Clearing of undergrowth from a buffer is prohibited excepted when accomplished under the supervision of the town landscape architect. Land area used to visibly separate one use from another through screening and distance, to shield or block noise, light, glare, visual, or other conditions, to block physical passage to non-similar areas, or to reduce air pollution, dust, dirt, and litter. Also "buffer area" or "buffer strip."

Caliper: A method of measuring the diameter of a tree trunk for the purpose of size grading or classification. The caliper of the trunk is measured six inches above the ground, up to and including four-inch caliper size, and twelve inches above the ground for larger sizes.

Town landscape architect: The agent of town of Sharpsburg having the primary responsibilities of administration and enforcement of the tree protection and landscape ordinance.

Clearing: The selective removal of vegetation from a property, whether by cutting or other means.

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Clear-cutting: The indiscriminate and broad removal of trees, shrubs, or undergrowth with the intention of preparing real property for non-agricultural development purposes. This definition shall not include the selective removal of non-native tree and shrub species when the soil is left relatively undisturbed; removal of dead trees; or normal mowing operations. See also "clearing."

Critical root zone: The minimum area beneath a tree which must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The critical root zone is approximately one foot (1') of radial distance for every inch of tree's DBH, with a minimum of eight feet (8').

Cut:

1. A portion of land surface or area from which soil, earth, rock. Or other materials has been removed or will be removed by excavation;
2. The height below original ground surface after the material has been or will be removed.

DBH: Diameter-at-breast-height, which is the tree trunk diameter (in inches) at a height of four and one-half feet above the ground. If a tree splits into multiple trunks below four and one-half feet, then the trunk is measured at its most narrow point beneath the split.

Deciduous: Plants that annually lose their leaves.

Development: All structures and other modifications of the natural landscape above and below ground or water, on a particular site, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating or drilling operations.

Drip line: A vertical line extending from the outer surface of a tree's branch tips to the ground.

Erosion: The process by which land surface is worn away by the action of wind, water, ice, or gravity.

Evergreen: Plants that retain foliage throughout the year.

Existing density factor (EDF): The tree density units awarded for the preservation of existing trees which will remain on site to be protected during construction.

Fill: A portion of land surface to which soil or other solid material has been added; the depth above the original ground; the height above original ground surface after the material has been or will be added.

Grade, existing: The vertical location of the existing ground surface prior to cutting or filling.

Grade, finished: The final grade or elevation of the ground surface after cutting or filling and conforming to a proposed and approved design.

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Grading: Altering the shape of ground surfaces to specified elevations, dimensions, and/or slopes; this shall include stripping, cutting, filling, stockpiling and shaping or a combination thereof, and shall include the land in its cut or filled condition.

Grubbing: The removal of stumps or roots from a site.

Land clearance: Removal of all trees and/or vegetation from the surface.

Land disturbance activity: Any activity which may result in soil erosion from water or wind and the movement of sediments into state and local waters or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, transporting, or filling of land but not including agricultural practices such as a family vegetable plot.

Land disturbance permit: Any permit other than a building permit issued by the town that authorizes clearing, grubbing, excavating, filling, or grading activities on a site or portion of a site. Said permit may be clearing, clearing and grubbing, or development permit as defined and authorized under the development regulations of the town.

Landscape plan: A component of a development, site, or other plan required by this ordinance and the landscape ordinance on which is shown those details required by the town landscape ordinance.

Landscape strip: Land area located within the boundary of a lot and required to be set aside and used for landscaping upon which only limited encroachments are allowed.

Landscaping:

1. An expanse of natural scenery; or
2. Any combination a natural and man-planted and maintained features including lawns, trees, shrubs, other plants, decorative or natural ground cover, exposed rock, mulch, wood chips, water features, sculpture, paths, etc.

Natural features: Trees or other living vegetation, and rocks.

Replacement density factor (RDF): The minimum number of tree density units which must be achieved on a property after calculating tree density units for existing trees (EDF) which will remain on site to be protected during construction.

Screening: The method of visually shielding or obscuring one abutting or nearby densely planted vegetation. Screening is designed to reduce the effects of objectionable or potentially objectionable uses and activities between incompatible uses. Breaks in screens shall be permitted to provide adequate ingress and egress as needed.

Sediment: Solid material, both mineral and organic, that is in suspension, is being transported or has been moved from its site of origin by air, water, ice, or gravity; the product of erosion.

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Sedimentation: The process by which eroded material is transported and deposited by the action of wind, water, ice, or gravity.

Shrub: Prostrate or upright woody plants, either evergreen or deciduous with a mature height usually less than ten feet.

Site:

1. Any tract, lot, or parcel or land in combination of tracts, lots, or parcels of land which are in one (1) ownership or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision, or project;
2. All contiguous land and bodies of water in one (1) ownership, graded or proposed for grading or development as a unit, although not necessarily at one time;
3. Regarding historic properties, a site is the location of a significant event, a prehistoric or historical occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structure.

Site density factor (SDF): The minimum number of tree density units per acre which must be achieved on a property after development (15 units per acre, exclusive of any acreage within a zoning buffer and any trees required to be preserved or planted in a zoning buffer).

Site plan: A document or group of documents containing sketches, text, drawings, maps, photographs, and other material intended to present and explain certain elements of a proposed development, including physical design, siting of buildings and structures, interior vehicular and pedestrian access, the provision of improvements, and the interrelationship of these elements.

Specimen tree: Any tree which qualifies for special consideration for preservation due to its size, species or historic relevance.

Stripping: Any activity which removes the vegetative surface cover including tree removal clearing, grubbing, and storage or removal of topsoil.

Timber: Harvestable trees; wooded areas.

Timbering: The act of removing harvestable trees and wooded areas for profit.

Topography: The configuration of surface features of a region, including its relief and rivers, lakes, and showing relative elevations.

Tract: An area, parcel, site, piece of land, or property that is subject of a development application.

Tree: Any living, self-supporting woody perennial plant which normally obtains a trunk diameter of at least two inches and a height of at least ten feet, and typically has a main stem or trunk and many branches.

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Tree, canopy: These trees that compose the top layer or canopy of vegetation and will generally reach a mature height of greater than 40 feet.

Tree, understory: Those trees that grow beneath the overstory, and will generally reach a mature height of under 40 feet.

Tree density standard: The minimum number of tree density units per acre which must be achieved on a property after development.

Tree density unit: A credit assigned to a tree, based on the diameter of the tree, in accordance with tables contained in this article.

Tree diameter: The cross-sectional dimension of a tree trunk measured at four and one-half feet above the ground. If a tree has more than one trunk, only the largest trunk shall be used to establish the tree diameter for the tree.

Tree protection area: Any portion of a site wherein are located existing trees which are proposed to be retained in order to comply with the requirements of this article. The tree protection area shall include no less than the total area beneath the tree canopy as defined by the dripline of the tree plus any additional area encompassing the critical root zone of a tree or group of trees collectively.

Tree protection plan: A plan that identifies tree protection areas, existing trees to be retained and proposed trees to be planted on a property to meet minimum requirements, as well as methods of tree preservation to be undertaken on the site and other pertinent information.

Tree removal: Any act which causes a tree to die within two years after commission of the act, including but not limited to damage inflicted upon the root system or trunk as a result of:

1. The improper use of machinery on the trees;
2. The storage of materials in or around the trees;
3. Soil compaction;
4. Altering the natural grade to expose the roots or to cover the tree's root system with more than four inches of soil;
5. Pruning judged to be excessive by town landscape architect or not in accordance with the standards set forth by the International Society of Arboriculture (ISA);
6. Paving with concrete, asphalt, or other impervious surface within such proximity as to be harmful to the tree or its root system; and
7. Application of herbicides or defoliates to any trees without first obtaining a permit.

Tree save area: An area designated for the purpose of meeting tree density requirements, saving natural trees, and/or preserving natural buffers.

Tree thinning: Selective cutting or thinning of trees for the clear purpose of good forestry management in order to protect said forest from disease or infestation and in no way shall be construed as clear cutting.

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Weeds: Any undesired, uncultivated plant, especially one growing in profusion so as to crowd out a desired crop, disfigure a lawn, etc. For the purposes of this article, weeds shall also include grass and/or underbrush in non-agriculturally used property, which is at least 12 inches tall.

Weeds, untended: Those plants, shrubs, underbrush, grass and other uncultivated plants which grow sporadically without care or attention.

Zoning buffer: A buffer, as defined in and required by the zoning ordinance or as a condition of zoning, special exception, or variance approval for a specific property.

Sec. 10-83. Applicability

The terms and provisions of this article shall apply to all activity which requires the issuance of a land disturbance permit on any real property within the town. No clearing, grubbing, grading, or other removal of existing vegetation that may effect the health of existing tree coverage may occur until it is determined that the proposed development is in conformance with the provisions of this article. Table 1, Summary of Applicability and Exemptions, summarizes those activities which are exempt from the provisions of this article and those for which a tree protection plan and a landscape plan must be approved prior to the issuance of a land disturbance permit (LDP).

**Table 1
Summary of Applicability and Exemptions**

Project Type	Type of Construction	Applicability
1 and 2 Family Dwellings	Building permit	Exempt
Grandfathered projects	Any property included within the limits of a LDP approved prior to the effective date of this article, and remaining portion of a project where 75 percent of area has already been included in LDP's approval prior to January 11, 2000 which was the effective date of this article.	Exempt
Horticultural or agricultural operations	Land clearing for clearly agricultural purposes, including legitimate timber harvesting; plant or tree nurseries; orchards. This exemption shall not be interpreted to include tree harvesting incidental to the development of land, or tree harvesting on land that is anticipated to be developed for non-horticultural uses.	Exempt
Diseased or infested trees	Removal upon advice and written finding of the county extension service, Georgia Forestry Commission, an arborist, an urban forester, or the town landscape architect.	Exempt

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Residential and nonresidential subdivisions	Land disturbance limited to areas needed for streets, drainage, and utilities.	Required
	Land disturbance beyond areas needed for streets, drainage, and utilities.	Required
	Building permit for construction of 1 and 2 family dwellings.	Exempt
	Recreation areas, common areas, and entrances.	Required
Multi-family and nonresidential sites	Clearing or clearing and grubbing, limited to areas outside of all minimum yards, buffers, and 100-year flood plain.	Required
	Clearing or clearing and grubbing only, proposing disturbance within a minimum yard or 100-year flood plain.	Required
	Grading or land disturbance permit	Required
	Building permit	Covered

The town landscape architect, as part of the review team, will conduct a preliminary review of all rezoning cases and special use permit applications. Conditions to rezoning will be applied where determined necessary by the preliminary review. These conditions may be either general, or specific in nature, and will reflect the standards or provisions of this article and the zoning ordinance. Compliance to these conditions will be verified by review of a revised site plan prior to the issuance of a land disturbance permit.

Developers and design professionals may meet at any time with the town landscape architect to discuss the tree preservation planning process. The town landscape architect is available for field inspections of site conditions prior to submittal to assist in the design process as it relates to preserving trees. Information can also be disseminated about how to prepare a tree protection and/or landscape plan for submittal in order to minimize plan review time.

Sec. Permitting process

1. Prior to the submission of any permit drawings, the applicant is encouraged to meet with the town landscape architect to discuss the tree protection/landscape ordinance as it relates to the applicant's property. The purpose of the pre-submittal conference is to clarify the provisions and procedures of this article and review applicable standards and guidelines for the submittal of documents, and required tree protection, replacement, and maintenance measures.
2. Tree protection plan and a landscape plan, three copies, either as separate or combined drawings, along with other permit drawings, are to be submitted as part of the plan approval and/or land disturbance permit process to the town building department. These plans will be reviewed by the town landscape architect for compliance with the town zoning ordinance and

this article in particular and either approved, denied, or returned for revisions. Any comments will be made available to the designer for response or revision to the drawings. The plans shall then be resubmitted (along with previous red line comments), with the necessary changes, following the same procedure as if it were an original application. Issuance of a land disturbance permit is contingent upon approval of the tree protection plan/landscape plan.

Sec. Procedures

1. All tree protection measures shall be installed prior to any land disturbance, and the town landscape architect shall be contacted for a pre-construction conference prior to any land disturbance. To adequately protect the site, tree save areas shall be delineated in the field with tree protection fencing. Land disturbance may proceed only after a permit is obtained and tree protection measures have been installed and approved by the town landscape architect. The town landscape architect will conduct unscheduled inspections during construction to ensure compliance with the approved tree protection plan. The town landscape architect shall have the authority to stop work on a development if site activities do not comply with the approved tree protection plan and/or this article.
2. A tree removal permit is required to remove any tree larger than eight inches in diameter from any property. There will be a fee for obtaining a tree removal permit based on the number of trees to be removed. Some tree removal permits may be granted without a tree removal fee in accordance with subsection 10-84(9) of this article. If any significant trees are removed from any property without a tree removal permit, the property owner shall pay a fine of twice the tree removal fee calculated. Minimum required site tree densities must be maintained at all times. Failure to maintain the required tree densities may result in re-plantings.
3. Any specimen tree which is removed without appropriate review and approval of the town landscape architect will be replaced by trees equaling a two times an inch for inch replacement of the tree removed. The owner of the property shall be required to replace said tree or trees with replacement trees which will be four-inch minimum caliper. Size alone will determine whether a tree was of specimen quality if the tree is removed without approval and there is no evidence of its condition. Such action may also result in a stop work order issued by the town landscape architect.
4. In the event any specimen tree or trees should not survive more than 24 months following completion of development, the owner of the property shall be required to replace said tree or trees with replacement trees (three-inch minimum caliper) having an inch for inch replacement of the specimen tree removed on the site as approved by the town landscape architect. Failure to maintain the required tree density factor at any time during the life of the project shall be a violation of this article.
5. An approved tree protection/landscape plan must be implemented prior to the issuance of a certificate of occupancy. When the developer/owner has installed the required landscaping improvements, he shall request an inspection by the town landscape architect. If the town landscape architect approves the installation, the project will be released for the issuance of a certificate of occupancy. If the town landscape architect does not approve the plan, he shall submit a report stating his reasons for disapproval so that the developer can make the necessary corrections. After the corrections have been made, a re-inspection shall be requested.

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6. Trees which are used to meet the tree density requirements shall be maintained for two years after the date of final inspection. It is the responsibility of the property owner to water and fertilize trees in order to maintain tree health and vigor. Failure to maintain the required tree density factor at any time during the life of the project shall be a violation of this article.
7. The developer/owner shall guarantee all plant materials for a minimum of two years from implementation. The town landscape architect shall inspect said improvements and shall make a determination of whether or not the required trees and landscaping are healthy and have a reasonable chance of surviving to maturity. The owner shall be notified by letter of any replacements or restoration that must be made to maintain compliance with this article. All unhealthy and dead plant material shall be replaced within 45 days in conformance with the approved landscaping plan.
8. It shall be the duty of the town landscape architect to enforce the provisions and requirements of this article. The town landscape architect shall have the authority to revoke, suspend, or void any land disturbance permit and shall have the authority to suspend all work on a site or a portion thereof.
9. Land clearing for clearly agricultural purposes, including legitimate timber harvesting; plant or tree nurseries; orchards, is exempt. However, this exemption shall not be interpreted to include tree harvesting incidental to the development of land, or tree harvesting on land that is anticipated to be developed for non horticultural uses. All legitimate timber harvesting shall be required to provide a 50-foot undisturbed buffer provided and maintained along the entire perimeter of the property, including road frontages, during the land disturbance activity, except for authorized access crossings. Once tree harvesting takes place in conformity with the above regulations, no development of the property shall be permitted that would require the cutting of trees preserved for a period of five years following the timber harvesting. No timber harvesting shall be undertaken on any non residential parcel of land unless the transitional buffer zones required by the zoning regulations of the district in which located, are preserved in a natural and undisturbed state.

Sec. Tree preservation and protection

The trees in Sharpsburg are a town resource worth protecting and maintaining. Existing trees shall not be disturbed, except as outlined in this article. No person shall cut carve or otherwise damage any tree. No person shall attach rope, wire, nails, or advertising posters to any tree. No person shall set fire or permit any fire to burn when such fire or the heat thereof will injure any portion of any tree. Any large, rare, or historically significant trees on a project site shall be highlighted by the designer (see subsection (6), specimen trees). It is required that all reasonable efforts be made to save specimen trees. "Reasonable effort" shall include, but not be limited to, alteration of building design, alternate building location, parking area, detention area, drainage system, or relocation of utilities. Careful thought and consideration is expected to be given to saving trees in the development process. In the plan review process of a proposed project, the first indicator of how well trees have been incorporated in the design process is how the proposed development will impact specimen trees. These trees are considered on an individual basis and a proposal to remove any of them is carefully scrutinized. Another indicator is how the proposed development will impact smaller, significant trees. These trees are typically considered in mass as they relate to the overall preservation of the natural character of the site. Removals which are not adequately justified may require site plan alterations.

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The following guidelines and standards shall apply to trees proposed to be retained for credit toward meeting the site density factor on a property.

1. **Planning considerations** - Tree space is the most critical factor in tree protection throughout the site development process. The root system can easily extend beyond the dripline of the tree canopy. The root system within the dripline region is generally considered to be the critical root zone. Disturbance within this zone can directly affect a tree's chances for survival. To protect these critical root zones the following planning considerations should be applied:
 - a) The use of tree save islands and stands is encouraged rather than the protection of individual (non-specimen) trees scattered throughout a site. This will facilitate ease in overall organization as related to tree protection.
 - b) The protective zone of specimen trees or stands of trees or otherwise designated tree save areas shall include no less than the total area beneath the tree(s) canopy as defined by the furthest canopy drip line of the tree(s).
 - c) Tree preservation and grading requirements are two design constraints, which are most often in conflict. A grade change of a few inches can be detrimental to a tree, yet most sites require extensive cut and fill in order to manage drainage. The use of berms or retaining walls, instead of cutting, to provide detention can be used to preserve significant trees. Detention ponds can be designed around significant trees by adding depth to minimize width where possible. Retaining walls can also be used to mitigate cuts and fills. Tree wells and/or aeration systems can also be provided for trees in areas of fill.
 - d) Underground water and wastewater lines, storm sewers, irrigation lines and both underground and overhead electric and telephone lines can have a considerable impact on trees. The layout of the project site utility plans should accommodate the required tree protective zones. Utilities should be placed along corridors between tree protective zones. Developers shall coordinate the location of utility lines, including irrigation and electric lighting, with the utility companies in order to prevent root damage within the critical root zones of protected trees and to minimize damage to trees located in protected zones.
 - e) Construction activities such as parking, material storage, concrete washout, burnhole placement, etc. shall be arranged so as to prevent disturbances within tree protective zones. No disturbance shall occur within the protective zone of specimen trees or stands of trees without prior approval of the town landscape architect.
 - f) Sidewalks often appear innocuous on plans, but can be very detrimental to trees due to grading requirements. Considerations should be given to move sidewalks as far from tree trunks as possible and provide a finished grade above the existing grade for sidewalks required in close proximity to a tree trunk. Drainage can be routed under sidewalks where an elevated grade is required.
2. **Protection of existing trees**
 - a) Tree protection devices are necessary to eliminate activities detrimental to trees including, but not limited to:

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1. Soil compaction in the critical root zone resulting from heavy equipment, vehicular or excessive pedestrian traffic, or storage of equipment or materials;
 2. Root disturbance due to cuts, fills, or trenching;
 3. Wounds to exposed roots, trunks, or limbs by mechanical equipment;
 4. Other activities such as chemical storage, cement truck cleaning, fire, etc.
- b) Trees identified to be preserved and counted as credit towards meeting required site tree density shall have a four-foot tree protection fencing installed at the critical root zones. For methods of tree protection, see subsections (3)a through g. All tree protection measures shall be installed prior to the start of any land disturbance and maintained until final landscaping is installed. No construction activities are to occur within tree protection areas. Areas designated for parking, materials and equipment storage or staging areas are to be located outside of the drip line of existing trees.
- c) The town landscape architect will conduct periodic inspections of the site before work begins and during clearing, construction, and post construction phases of development in order to ensure compliance with these regulations and the intent of this article. Tree protection must remain in functioning condition throughout all phases of development. Failure to comply with and/or maintain approved tree protection measures may result in a stop work order issued by the town landscape architect.
3. **Methods of tree protection** - The root system within the drip line is generally considered to be the critical root zone. Most trees can tolerate only a small percentage of critical root zone loss. To protect these critical root zones, a tree protection area shall be established around each tree or group of trees to be retained. The following section describes ways to help control unnecessary encroachment on existing trees. These methods and guidelines will be followed for tree protection throughout all phases of construction. These guidelines are designed to reduce damage to critical root zones and wounds to exposed roots, trunks, and limbs by chemical, mechanical, and other means. Tree protection areas will be delineated on tree protection plan and methods of protection will be clearly noted and detailed.
- a) **Active protective barriers** - Barriers shall be installed along the outer edge of and completely around the critical root zones of all specimen trees or stands of trees, or otherwise designated tree protective zones, prior to any land disturbance. Deviations from this must be approved on an individual basis by the town landscape architect. Barriers will be a minimum four (4) feet high, constructed in a post and rail configuration. A two-inch by four-inch post and a one-inch by four-inch rail, with the post no further than six feet apart, is recommended. Chain link fence with the same post spacing, is also acceptable. All tree protection zones should be designated as such with "tree save area" signs posted visibly on all sides of the fenced in area. All tree fencing shall be maintained throughout the land disturbance and building construction, and should not be removed until all construction and landscaping is complete.
- b) **Passive protective barriers** - Tree save areas and their critical root zones not within 60 feet of any grading, storage, construction or traffic areas may be protected by four-foot orange plastic safety fencing or continuous plastic flagging. Tree protection materials shall consist of heavy mil, plastic flagging, a minimum four inches in width with dark letters reading "Tree Protection Area. Do Not Enter" or equivalent signage on a

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continuous durable restraint. Passive tree protection fencing is to be used only for areas remote from construction activity.

- c) **Boring** - No open trenching will be allowed within the protected zone as defined by the protective barricades. All underground utilities to be installed within this protection zone shall be installed by boring underneath the root zone. Any exceptions must be approved by the town landscape architect. Utilities may be tunneled in the root zone at a twenty-four-inch minimum depth providing that plans are approved showing the location and method.
- d) **Filling/clearing within root zone** - Fill dirt no deeper than two inches may be allowed within the drip line of the tree. No grubbing is permitted in the root zone. In the protected root zone, any stumps, dead trees and shrub growth to be removed shall be cut flush or ground out. Stump grinding will be accomplished with equipment and methods acceptable in normal arboriculture operations. All holes will be backfilled completely the same day of the operation.
- e) **Soil compaction** - Where compaction might occur due to traffic or materials storage, the tree protection zone must first be mulched with a minimum four-inch layer of shredded hardwood mulch, or a six-inch layer of pine straw.
- f) **Clearing activities** - Roots often fuse and tangle amongst trees. The removal of trees adjacent to tree save areas can cause inadvertent damage to the protected trees. Wherever possible, it is advisable to cut minimum two-foot trenches (e.g. with a ditch witch) along the limits of land disturbance, so as to cut, rather than tear, the roots. Trenching may be required for the protection of specimen trees. The cutting down and then grinding the stump of the adjacent removed trees, as opposed to bulldozing them and ripping their roots, can also aid the protected trees.
- g) **Tree removal** - To minimize potential root loss from soil disturbance in an overlapping root situation. All roots attached to a tree inside a tree save area that extend outside the tree save areas shall be cut by hand if the soil is to be disturbed. The removal of any tree adjacent to a tree within a tree save area shall not be removed by heavy equipment. Cutting the roots by hand or with a ditch witch is acceptable.

4. **Tree protection plan** - Any proposal for development or improvement of any tract of land shall include a tree protection/landscape plan, including trees to be planted in order to meet the minimum requirements of this section. Such plan shall be submitted, along with other permit drawings, to the town building department prior to any clearing, grubbing, grading or other removal of the existing vegetation that may affect the health of existing tree coverage. No tree removal shall occur prior to approval of the tree protection plan. The tree protection plan may be submitted as part of the landscape plan, provided that all required information is legible, or as a separate drawing which includes, as a minimum, the following:

- a) Name, address, and phone number of owner of record and applicant.
- b) Boundary lines of the tract by lengths and bearings, streets adjoining the property, total area of the tract, land lot, land district, north point, graphic scale, and date.
- c) Approximate location of all specimen trees and their critical root zones. Indicate those specimen trees proposed for removal or for preservation. Removal of specimen trees is subject to town landscape architect's approval.

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- d) Approximate location of all trees or stands of trees proposed to be protected. Only trees that are designated on the tree protection plan will be counted towards density requirements.
- e) Exact location of specimen trees when their preservation is questionable, or might result in a change of the site design.
- f) Location of proposed buildings, structures and paved areas.
- g) Locations of all existing and proposed utility lines. (Utility lines must be placed along corridors between critical root zones of trees which will remain on the site.)
- h) Limits of land disturbance, clearing, grading, and trenching.
- i) Limits of tree protection areas, showing trees to be maintained and planted, specifying species and size.
- j) Grade changes or other work adjacent to a tree, which would effect it adversely, with drawings or descriptions as to how the grade, drainage, and aeration will be maintained around the tree.
- k) Methods of tree protection shall be indicated for all tree protection zones, including tree fencing, erosion control, retaining walls, tunneling for utilities, aeration systems, transplanting, staking, signage, etc.
- l) Procedures and schedules for the implementation, installation, and maintenance of all tree protection measures.
- m) Plan should indicate staging areas for parking, materials storage, concrete washout, and debris burn where these areas might affect tree protection.
- n) The required site tree density factor must be satisfied. Compliance shall be clearly demonstrated on the tree protection plan. Existing trees or stands of trees used in the density calculation must be clearly indicated on the drawing. A summary table of the number of existing trees to remain and new trees to be planted, by diameter shall be shown along with the calculations showing tree density achieved for the site.
- o) Additional information as required on a case by case basis. This could include, but is not limited to, a certified arborist's appraisal of the tree's viability and projected life span.
- p) The following notes shall be indicated on both the tree protection plan and the grading plan in large bold letters.

1. CONTACT THE BUILDING DEPARTMENT AT (770) 251-4171 TO ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE TOWN LANDSCAPE ARCHITECT PRIOR TO ANY LAND DISTURBANCE.
2. ALL TREE PROTECTION MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO THE START OF ANY LAND DISTURBANCE AND MAINTAINED UNTIL FINAL LANDSCAPING IS INSTALLED. CALL THE BUILDING DEPARTMENT AT (770) 251-4171 FOR AN INSPECTION BY THE TOWN LANDSCAPE ARCHITECT.
3. NO PARKING, STORAGE, OR ANY OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS.
4. A MAINTENANCE INSPECTION OF TREES WILL BE PERFORMED AFTER TWO FULL GROWING SEASONS FROM THE DATE OF THE FINAL CONSTRUCTION INSPECTION. PROJECT OWNERS AT THE TIME OF THE MAINTENANCE INSPECTION ARE RESPONSIBLE FOR ORDINANCE COMPLIANCE.

5. Determination of site density factor

- a) All projects within the town, with the exception of the construction of individual single-family and detached dwellings, shall maintain or exceed a minimum site density factor of 16 units per acre. The term "unit" is not synonymous with "tree." The density may be achieved by counting existing trees to be preserved, planting new trees in accordance with the minimum standards of this article, or some combination of the two. All trees that are to be counted toward meeting density requirements must be inventoried. The site density requirement must be met whether or not a site had trees prior to development. Minimum tree site density shall be calculated and established pursuant to the formula and analysis set forth in this section. The trees, both retained and new, where feasible shall be reasonably distributed throughout the site with emphasis on tree groupings to achieve results following professional landscape standards.
- b) Individual single-family lots, within platted residential subdivisions, with less than two units per acre are required to plant four shade/canopy trees that are at least eight feet tall planted and have a trunk of not less than two caliper inches. Fifty percent of the required planting shall be placed in the front yard. All residential lots shall require that improvements be located so as to provide minimum disturbance to the natural topography of the site and protection to the maximum number of trees.
- c) Where the proposed development area is so dense that the minimum site density factor can not reasonably be achieved, the development area shall be reduced by removing parking spaces in excess of the minimum number of spaces required by zoning, placing additional planting islands within the development area, or reducing the area to be occupied by buildings.

6. Specimen trees - Some trees on a site warrant special consideration and encouragement for preservation. These trees are referred to as specimen trees. Trees unique due to age, size, species or historic relevance are to be identified during the survey process and special consideration must be made to work around them. It is required that all reasonable efforts be made to save specimen trees. Reasonable effort shall include, but not limited to, alteration of building design, alternate building location, parking area, detention area, drainage system, or relocation of utilities. These trees are to be identified and highlighted on the tree protection plan. Design of buildings, hardscapes and utilities are to be developed with consideration to preserving and featuring specimen trees.

The following criteria are used by the town to identify specimen trees. Both the size and condition criteria must be met for a tree to qualify:

A. Size criteria:

- 1. Large hardwoods (oaks, poplars, sweetgums, etc.): twenty-seven-inch diameter or larger.
- 2. Large softwoods (pines, deodar cedar, etc.): thirty-inch diameter or larger.
- 3. Small trees (dogwoods, redbuds, sourwoods, etc.); eight-inch diameter or larger.

B. Condition criteria:

1. Life expectancy of more than 15 years.
2. Relatively sound and solid trunk with no extensive decay.
3. No more than one major and several minor dead limbs (hardwoods only).
4. No major insect or pathological problem.

A lesser sized tree can be considered a specimen tree, if in the judgment of the town landscape architect:

1. It is a rare or unusual species or of historical significance.
2. It is specifically used by a builder, developer, or design professional as a focal point in a project or landscape.
3. It is a tree with exceptional aesthetic quality.

7. **Replacement of specimen trees** - In the event any specimen tree should be removed during the land development process, the applicant shall be required to replace any specimen tree being removed with suitable replacement trees elsewhere on the site. Removed specimen trees shall be replaced by species with potential for comparable size and quality. Tree replacement, in addition to the minimum required tree density, shall be required in recompense for the removal of specimen trees. Specimen trees that are removed must be replaced by trees, minimum three-inch caliper, with a inch for inch replacement of the specimen tree removed. To determine if the replacement is reasonable the town landscape architect shall consider intended use of:

- a) Existing tree coverage, size, and type.
- b) Number of trees to be removed on the entire property.
- c) Number of trees to be saved on the entire property.
- d) Area to be covered with structures, parking, and driveways.
- e) Grading and drainage requirements.
- f) Character of the site and its environs.

Any tree, designated on the tree protection plan to be saved, which is damaged during construction or as a result of construction, as determined by the town landscape architect, shall be replaced with a tree or trees equal to the unit value of the tree damaged. However, any specimen tree damaged as described above shall be replaced with trees equaling an inch for inch replacement of the tree damaged.

In the event any specimen tree or trees should not survive more than 24 months following completion of development, the owner of the property shall be required to replace said tree or trees with replacement trees (three-inch minimum caliper) having an inch for inch replacement of the specimen tree removed on the site as approved by the town landscape architect.

Any specimen tree which is removed without appropriate review and approval of the town landscape architect must be replaced by trees equaling a two times an inch for inch replacement of the tree removed. The owner of the property shall be required to replace said tree or trees with replacement trees which will be four-inch minimum caliper. Size alone will determine whether a tree was of

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specimen quality if the tree is removed without approval and there is not sufficient evidence of its condition. Such action may also result in a stop work order issued by the town landscape architect.

8. Relocation of trees

- a) Trees to be relocated shall be removed with a root ball sized in proportion to their calipers. Root balls shall be 12 inches in diameter for each one inch of tree caliper. Trees four inches in caliper and smaller are to be measured six inches from the ground. Trees four inches to eight inches caliper are measured twelve inches from the ground, trees eight inches caliper or larger are measured from breast height.
- b) Trees which are to be relocated in areas which do not require grading are to be placed directly into their new location. Trees to be relocated into the limit of work line shall have tree barriers placed around it in accordance with the plan.
- c) Trees to be transplanted off site in full leaf shall be covered entirely with a protective cloth covering prior to transporting. Trees transplanted on site require no covering.
- d) Trees which are to be relocated in areas to be graded are to be stockpiled. Stockpiled trees shall be well heeled in and protected from excessive wind and sun. The contractor shall provide water to maintain a healthy condition.
- e) Where a tree is to be removed under the provisions of this article, the town may, with consent of the property owner, relocate the tree at the town's expense to town owned property for replanting, either for permanent utilization at the new location, or for future use at another town property.

9. Removal of trees - There will be a fee for obtaining a tree removal permit based on the number of trees to be removed. However, the removal of trees other than specimen trees from an owner owned, single-family lot are exempt from provisions of this article, provided that the removal does not reduce the required tree density of the lot below the minimum requirements. Homeowners who remove trees on their own residential property, without cost of a person or company engaged in removing the trees for a fee, shall not pay any fee until they remove more than five trees at a time within a single calendar year. If a contractor is employed to remove trees, a tree removal permit shall be required for removing trees, eight inches or larger in diameter. Tree removal conducted on property, regardless of zoning classification, by any person or company for a fee shall require a tree removal permit. If significant trees are removed from any property without a tree removal permit, the property owner shall pay a fine of twice the tree removal fee calculated. All contractors for tree removal must be licensed, bonded, and insured.

- a) **Safety standards** - The contractor shall be solely responsible for pedestrian and vehicular safety and control within the work site and shall provide the necessary warning devices, barricades, and ground personnel needed to give safety, protection, and warning within the area where tree removal or pruning is to occur. Blocking of public streets shall not be permitted unless prior arrangements have been made with the town and is coordinated with appropriate departments. Traffic control is the responsibility of the contractor and shall be accomplished in conformance with state, county and local highway construction codes.
- b) **Tree pruning** - Pruning is to be performed by tree workers who, through related training and on the job experience, are familiar with the techniques and hazards of this work including trimming, maintenance, repairing or removal, and equipment used in such operations. The use

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of climbing spurs or irons is not approved in pruning operations on live trees. This type of work is a potentially hazardous occupation and is to be undertaken only by trained personnel or under the supervision of trained personnel, all of whom are covered with workers compensation, property damage, public liability, and completed operations insurance.

- c) **Tree removal** - Trees shall be removed in accordance with accepted industry standards and procedures and in accordance with the following minimum requirements: Extreme care shall be taken so as to prevent limbs, branches and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, trees, shrubs, streets and other property, both public and private. This type of work is a potentially hazardous occupation and is to be undertaken only by trained personnel or under the supervision of trained personnel, all of whom are covered with workers compensation, property damage, public liability, and completed operations insurance.
- d) **Cleanup** - Debris and logs shall not be left on the public right-of-way overnight. It shall be the responsibility of the contractor to remove and dispose of, in a proper and acceptable manner, all logs, brush and debris resulting from the tree removal operation unless otherwise directed by the town. No person shall be issued a tree removal permit unless said person agrees to remove all cut logs, brush, and debris from the premises. Removal of such debris shall be performed daily so as to not disrupt the work of other contractors on the site. Absolutely no burying on site is allowed. No burning on site is allowed without a permit issued by the town fire department.
- e) **Trees on private property** - It shall be the duty of any person or persons owning or occupying property bordering on any street upon which property there may be trees, to prune such trees in such a manner that they will not obstruct or shade street lights, obstruct passage of pedestrians on sidewalks, obstruct vision of traffic signs, or obstruct views of any street intersection. Any trees that are diseased or insect infested shall be removed, sprayed, or treated in such a manner that they will not infect or damage nearby public vegetation or cause harm to the community or citizens therein. The town landscape architect may order trees on private land that causes obstructions, present insect or disease problems, or otherwise present a danger to public health or safety be pruned, removed, or treated.
- f) **Fees** - Permits shall be obtained by any person or company engaged in the removal of trees for a fee. The town landscape architect will review the tree removal plans and inspect the project site when necessary prior to tree removal of any trees. If significant trees are removed from any property without a tree removal permit, the property owner shall pay a fine of three times the tree removal fee calculated. Minimum site tree densities must be maintained at all times. Permit fees shall be as set forth in the fee schedule for the town.
- g) **Penalties** - Any person, firm, corporation, company, or partnership violating any provision of this article shall be punished as provided in section 1-14 of the Code of Ordinances. Where an offense continues from day to day, each day's continuance thereof shall be deemed a separate offense. The owner of a premises, where anything in violation of this article shall exist, or any person, firm, corporation, company, or partnership who may have assisted in the commission of such violation shall be guilty of a separate offense and, upon conviction thereof, shall be punished as herein provided.

Sec. Landscape plan

A landscape plan prepared by a landscape architect, registered in the state, will be required for any development, with the exception of the construction of individual single-family and detached dwellings, in the town. A landscape plan shall be prepared for any project wherein buffer areas or other landscaping areas or treatments are required by this article, the zoning ordinance, conditions of zoning, special use or variance approval, or other regulations of the town, and shall be approved prior to the issuance of a land disturbance permit. A landscape plan is required for single-family residential subdivision development plats. The plan shall address common areas including, but not limited to, such areas as parks, active and passive recreation areas, and entrances. These residential common areas shall maintain or exceed the minimum site density factor of 16 units per acre.

The density may be achieved by counting existing trees to be preserved, planting new trees in accordance with the minimum standards of this article, or some combination of the two. The site density requirement must be met whether or not a site had trees prior to development. Individual single-family lots, within platted residential subdivisions, with less than two units per acre are required to plant four shade/canopy trees that are at least eight feet tall planted and have a trunk of not less than two caliper inches. Fifty percent of the required planting shall be placed in the front yard. Minimum tree site density shall be calculated and established pursuant to the formula and analysis set forth in this section. The trees, both retained and new, where feasible shall be reasonably distributed throughout the site with emphasis on tree groupings to achieve results following professional landscape standards.

All areas not devoted to structures, site development features, and natural vegetation shall be landscaped. Landscaping shall include trees, shrubs, ground cover, perennials, annuals, plant sculpture, art and the use of building and paving materials in a manner that respects the natural topographic features and natural resources of the site.

Landscape plan requirements - The landscape plan may be submitted as part of the tree protection plan, provided that all required information is legible, or as a separate drawing which includes, as a minimum, the following:

- a) Name, address, and phone number of owner of record and applicant.
- b) Boundary lines of the tract by lengths and bearings, streets adjoining the property, total area of the tract, land lot, land district, north point, graphic scale, and date.
- c) Adjacent land uses and zoning classifications.
- d) Approximate location of all specimen trees or stands of trees.
- e) Location of proposed buildings, structures and paved areas.
- f) Location of all existing and proposed storm, sanitary, and utility lines.
- g) Location of all existing and proposed contours (two-foot minimum).
- h) General location of all proposed trees, shrubs, vines, groundcovers, mulching, and other features proposed within the landscaped area. A scale sufficient to clearly show all details shall be used.
- i) Planting schedules with proposed plant material names (common and botanical), quantity, size, spacing, and any special planting notes.
- j) Show site calculations:
 1. Total site area.

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2. Number of large shade and small flowering trees required and number provided in plan.
 3. Number of evergreen and deciduous shrubs required and number provided in plan. (Denote evergreens in planting schedule).
 4. Site density calculations.
- k) All landscape plans shall be prepared by a landscape architect, registered in the state, who shall affix their seal, to the drawing.
- l) All parking islands must be planted with canopy/shade trees.
- m) Planting details, especially on steep slopes, if applicable.
- n) If significant trees are saved on a development site, then up to a 50 percent tree credit can be issued by the town. This will only be issued if the tree save areas are considered to be aesthetically or environmentally significant by the town landscape architect.
- o) If there are significant problems on a site (example: areas totally void of trees), the town landscape architect may not allow tree credit, even though trees may be saved.
- p) The following notes shall be indicated in bold letters on the landscape plan:
1. WHERE LANDSCAPING AREAS ADJOIN GRASSED RIGHTS-OF WAY, SUCH AREAS SHALL BE CONSIDERED PART OF THE LANDSCAPED AREA FOR PURPOSES OF MAINTENANCE, AS OF COMPLETION OF SITE IMPROVEMENTS, THE PROPERTY OWNER SHALL HAVE AN IMPLIED EASEMENT ON RIGHTS-OF-WAY EXTENDING FROM THE SITE TO THE ROAD PAVEMENT IN ORDER TO COMPLETE THE REQUIRED MAINTENANCE.
 2. A MAINTENANCE INSPECTION OF TREES WILL BE PERFORMED AFTER TWO FULL GROWING SEASONS FROM THE DATE OF THE FINAL CONSTRUCTION INSPECTION. PROJECT OWNERS AT THE TIME OF THE MAINTENANCE INSPECTION ARE RESPONSIBLE FOR ORDINANCE COMPLIANCE.

Landscaping requirements - The town has devised a plant palette for the town. This is a detailed plant list of trees, shrubs, and groundcovers which outline historically relevant and suitable plant material for the town. By using this list, focusing primarily on those plants identified as signature plants, we hope to promote the continued development of a regional character, ensure the preservation of the town's horticultural heritage, and provide guidance in the decision making for our landscape design efforts. The plant palette is listed at the end of this article.

a) General requirements

1. Unless otherwise approved by the town landscape architect, all plant material selected to meet the replanting and/or landscaping requirements shall be selected from the plant palette for the town. Plant materials shall be placed appropriately for future growth.
2. All projects within the town, with the exception of the construction of individual single-family and detached dwellings, are required to maintain a minimum site density factor of 16 units per acre and to provide the minimum landscaping requirements. The minimum site density may be achieved by counting existing trees to be preserved, planting new trees in

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accordance with the minimum standards of this article, or some combination of the two.

3. Individual single-family lots, within platted residential subdivisions, with less than two units per acre are required to plant four shade/canopy trees that are at least eight feet tall planted and have a trunk of not less than two caliper inches. Fifty percent of the required planting shall be placed in the front yard.
4. The following minimum landscaping requirements, which can be used as replacement units to meet the required site density factor, with the minimum number and size of trees and shrubs, per acre are:

MINIMUM LANDSCAPING REQUIREMENTS

2 large shade/canopy trees	4-inch caliper
6 large shade/canopy trees	3-inch caliper
10 large shade/canopy trees	2-inch caliper
15 small understory/flowering trees	1.5-inch caliper
40 evergreen shrubs	3-gallon size (18 inches)
15 deciduous shrubs	3-gallon size (18 inches)

5. Projects that are zoned industrial are required to provide one-half of the minimum landscaping requirement (eight units per acre), with no less than 50 percent of the required landscaping to be placed in the required front yard. The remaining 50 percent shall be evenly distributed throughout the site. For corner lots or lots with more than one street frontage, no less than 70 percent of required landscaping shall be placed in the yards adjacent to the rights-of-way of said streets. Buffer and screening requirements are considered to be in addition to the minimum landscape requirements.
6. All canopy/shade replacement trees shall be at least eight feet tall planted and have a trunk of not less than two caliper inches. All understory/flowering replacement trees shall be at least six feet tall planted and have a main trunk of not less than one and one-half caliper inches. All multi-stemmed understory/flowering replacement trees shall have a minimum of three canes, each with minimum three-quarters of an inch caliper extending clear at least to a height of four feet. All evergreen replacement trees shall be at least a seven gallon size, six feet tall planted, and have a main trunk of not less than one and one-half caliper inches. All

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tree formed, multi-stemmed, evergreen replacement trees shall have a minimum of three canes, each with a minimum three-quarters of an inch caliper extending clear at least to a height of four feet and be pruned as tree form at time of planting.

7. No more than 40 percent of any one tree species shall be permitted on a landscape and/or tree protection plan. Trees and shrubs shall be evenly distributed on site.
8. Landscaping shall not obstruct the view between 24 inches high and 60 inches high on access drives, streets or parking aisles. Indicate clear sight lines at intersections.
9. Where landscaping requirements are included as part of the regulations for any zoning district classification, the most restrictive requirement shall govern. See appropriate zoning district classification for any additional landscaping requirements.
10. The landscape plan must address all the landscaping requirements of this article, which includes, but is not limited to, site density factor, tree replacement, interior parking lot plantings, landscape strip plantings, landscape screening plantings, and landscape buffer plantings.

b) **Interior parking lot planting requirements** - If any parking lot contains 20 or more parking spaces, interior parking lot landscaping shall be required as follows:

1. There shall be a minimum curb radii of three feet required on the corners of all landscape islands and medians to allow for free movement of motor vehicles around planting materials. All islands and medians shall have raised curbs around them to protect parked vehicles, provide visibility, confine moving traffic to aisles and driveways, and provide space for landscaping. Striping of parking islands is not permitted.
2. All rows of parking spaces shall be provided a terminal island to protect parked vehicles, confine moving traffic to aisles and driveways, and provide space for landscaping. A terminal island for a single row of parking spaces shall be planted with a least one canopy/shade tree. A terminal island for a double row of parking spaces shall contain not less than two shade/canopy trees.
3. All landscape islands within parking lots shall be 100 percent landscaped with deciduous trees, evergreen shrubs (not to exceed three feet high at maturity), ground cover (which does not require mowing) and/or flowers in mulched beds.
4. Interior landscape islands shall be provided within parking areas of 20 or more spaces. Parking areas designated to accommodate more than 20 motor vehicles must install interior landscape islands so that no more than 16 adjacent parking spaces exist without a landscaped separation of at least eight feet in width. If significant tree save areas or natural areas exist within a parking area, the town landscape architect may make an exception to this requirement, as appropriate.
5. Each island or strip shall contain a minimum of 125 square feet. All landscape islands shall be reasonably dispersed throughout the parking lot, and shall have a minimum width of eight feet measured from back of curb. There shall be a

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minimum eight-foot wide (back of curb to back of curb) curbed landscape island at the end of every row of parking, equal in length to the adjoining parking space. A parking island must be located no further apart than every 16 parking spaces.

6. Landscaped areas between parking areas and buildings shall not be considered as interior landscaping.
 7. Areas used principally for storage of vehicles or display areas do not require interior islands if such areas are screened from adjacent properties and public streets.
- c) **Peripheral parking lot planting requirements** - If any parking lot contains ten (10) or more parking spaces, peripheral parking lot landscaping shall be required as follows:
1. The perimeter of all parking areas shall be landscaped.
 2. Except where otherwise stated in the town's zoning ordinance, a landscaping strip ten feet in width measured from the back of curb, shall be located between the parking lot and the abutting property lines, except where driveways or other openings may necessitate other treatment.
 3. Peripheral plantings shall include one shrub per 20 linear feet of abutting land and one of, or a combination of the following, which need not necessarily be installed on center:
 - a) One understory/flowering tree per 20 linear feet; one shade/canopy tree per 35 linear feet.
 4. Trees shall be planted at a minimum of three feet from any curb, so as to prevent injury to trees by vehicle bumpers. Where landscaped areas are located adjacent to vehicle overhangs, the trees shall be planted in line with the striping between parking spaces in order to avoid injury to trees by vehicle bumpers.
- d) **Landscape planting strip requirements** - Landscape strips shall be used to separate uses, provide vegetation in developed areas, and enhance the appearance of individual properties. The following minimum requirements shall apply to landscape planting strips:
1. The width of a landscape strip must be as a minimum, conform with the requirements of the conditions of zoning. Otherwise, the minimum width of landscape strips must conform with the requirements of the zoning ordinance or this article, whichever is greater.
 2. Landscape plantings shall be provided in a landscape strip of at least ten feet in which adjacent to any street right-of-way abutting the property and running the length of the entire property frontage; and in areas adjacent or internal to off street parking lots that contain more than five parking spaces; and as required by a condition of zoning, special use or variance approval.

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3. No permanent structures are permitted within landscape strips, with the exception of identification signage and light posts. This includes pavement, retaining walls, curbing, dumpsters, drainage structures, detention facilities, rip-rap, utility boxes, vacuum/air/water, etc.
 4. Curb stops must be used to prevent vehicle overhang into required landscape strips and parking islands.
 5. Landscape strips shall contain one tree for each 35 linear feet of strip length. Each tree shall be at least eight feet planted. Clumping is permitted provided that adequate spacing is allowed for future growth there is no gap greater than 50 feet.
 6. Landscape strips shall contain ten shrubs for each 35 linear feet of strip length. Clumping is permitted provided that adequate spacing is allowed for future growth and there is no gap greater than 50 feet.
 7. The remaining ground area shall be sodded, seeded, or hydroseeded with grass, and/or planted with groundcover species.
 8. Where landscaping areas adjoin grassed rights-of way, such areas shall be considered part of the landscaped area for purposes of maintenance. As of completion of site improvements, the property owner shall have an implied easement on rights-of-way extending from the site to the road pavement in order to complete the required maintenance.
- e) **Landscape screening planting requirements** - Screening shall be used as a buffer between incompatible uses, and to reduce the effects of headlight glare, noise, and other objectionable activities. The following minimum requirements shall apply to screening:
1. Screening shall be installed on all lot lines where commercial, industrial, and institutional uses abut residential zoning districts except for entrances and exits.
 2. Screening may consist of a fence, a wall, a berm, or vegetation and/or a mix of any or all of the foregoing. The outer or public side of fences and walls shall be landscaped enough to soften the structure with a tree or shrub group at least every 50 feet, subject to approval of the town landscape architect. Berms must be a minimum two feet high, two-foot minimum crown width, and side slopes of no greater than three to one.
 3. Parking areas shall be adequately screened so as to not be visible from contiguous residential areas and shall have limited visibility from adjoining streets.
 4. Dumpster and trash storage/collection areas shall be adequately screened so as not to be visible from streets and/or adjacent properties regardless of adjacent land use or zoning classification.
 5. Loading areas shall be adequately screened so as not to be visible from any residential areas or streets.
 6. Heating and cooling units for developments other than single-family shall be adequately screened so as not to be visible from streets and/or adjoining streets.

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7. All plantings used for screening shall consist of evergreen trees, shrubs, or combination thereof. All trees planted shall be a minimum five feet planted and shall be a species which will achieve a height of at least 20 feet at maturity. All shrubs planted shall be a large growing species, shall be a minimum of two feet planted, and shall be a species which will achieve a height of at least ten feet at maturity.
8. Plants shall be spaced so as to provide for effective visual screening within three growing seasons. Planting beds required for screening shall be a minimum of six feet in width.

f) **Landscape buffer planting requirements** - Buffers shall be required between uncomplimentary uses in accordance with the provisions of the zoning ordinance or as a condition of zoning, special use or variance approval. Buffers are a landscaping requirement that is in addition to the minimum landscaping requirements of any site development in the town.

1. Landscape buffers are intended to separate different land uses and zoning districts from each other and are intended to eliminate or minimize potential nuisances such as dirt, litter, noise, glare of lights, signs, and unsightly buildings or parking areas. There shall be five different buffers types based on acreage of the project and zoning districts. Each different buffer identifies the width of the buffer, minimum tree spacing standards, minimum shrub spacing standards, and minimum/maximum wall and/or fence standards. The buffers types are listed in the following matrix based on the zoning of the proposed project and the adjacent zoning also. Buffer widths for each buffer type will be based on project acreage.
 - ◆ Area 1 consists of those zoning districts where lots sizes are permitted to be smaller than 20,000 square feet;
 - ◆ Area 2 consists of those zoning districts where lots sizes are permitted to be 20,000 square feet or greater.

TABLE INSET:

Type A Buffer:	Type B Buffer:
Area 1 = 5 feet densely planted	Area 1 = 10 feet densely planted
Area 2 = 15 feet densely planted	Area 2 = 25 feet densely planted

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<i>Type C Buffer:</i>	<i>Type D Buffer:</i>
Area 1 = 20 feet densely planted	Area 1 = 25 feet densely planted
Area 2 = 35 feet densely planted	Area 2 = 50 feet densely planted
<i>Type E Buffer:</i>	
Area 1 = 50 feet densely planted	
Area 2 = 100 feet densely planted	

BUFFER REQUIREMENTS OF ZONING CLASSIFICATION
Adjacent Property

Subject Property	Zoning Classification	RS-20	RS-15	RU-7	RU-1	RU-2	RML	RMH	OI-1	OI-2	CSN	CUN	CCS	CBD	CGN	CHV	ILT	IHV	PDR	PDC	PDI	MXD-1	MXD-2	HST
	RS-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RS-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RU-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	RU-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	A
	RU-2	B	B	B	B	B	B	B	-	-	-	-	-	-	-	-	-	B	-	-	-	-	-	B
	RML	B	B	B	B	B	B	A	A	-	-	-	-	-	-	-	-	B	-	-	-	-	-	B
	RMH	B	B	B	B	B	B	A	A	-	-	-	-	-	-	-	-	B	-	-	-	-	-	B

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OI-1	C	C	C	C	C	B	B	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	B
OI-2	C	C	C	C	C	B	B	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	B
CSN	C	C	C	C	C	B	B	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	B
CUN	C	C	C	C	C	B	B	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	B
CCS	C	C	C	C	C	B	B	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	B
CBD	C	C	C	C	C	B	B	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	B
CGN	C	C	C	C	C	B	B	A	A	A	A	A	A	-	-	-	-	C	-	-	-	-	B
CHV	C	C	C	C	C	B	B	A	A	A	A	A	A	-	-	-	-	C	-	-	-	-	B
ILT	E	E	E	E	E	D	D	C	C	B	B	B	B	B	B	-	-	E	B	-	A	A	E
IHV	E	E	E	E	E	E	E	E	E	C	C	C	C	C	C	A	A	E	C	A	C	C	E
PDR	B	B	B	B	B	B	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B
PDC	D	D	D	D	D	D	D	B	B	-	-	-	-	-	-	-	-	D	-	-	-	-	B
PDI	D	D	D	D	D	D	D	B	B	B	B	B	B	B	B	-	-	D	B	-	A	A	E
MXD-1	C	C	C	C	C	B	B	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	B
MXD-2	C	C	C	C	C	B	B	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	B
HST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

2. Additionally shrubs shall not be planted closer than eight feet to planted trees. Shrubs shall be distributed along the entire length of the buffer at the following minimum rates:

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Required Buffer Width	One Shrub Per . . .
Less than 20'	50 sq. ft. of buffer
21' to 30'	75 sq. ft. of buffer
V a 31' to 50'	125 sq. ft. of buffer
Greater than 50'	200 sq. ft. of buffer

Variations in quantities and spacing of buffer shrubs may be approved by the town landscape architect when larger shrubs are provided.

3. The number of planting rows for supplemental plantings or replantings is determined by the buffer width:

Buffer Width	Minimum Planting Rows
Less than 10'	1 row
10' to 20'	2 rows
21' to 30'	3 rows
31' to 50'	4 rows
Greater than 50'	4 rows plus 1 row for each additional 15 feet

Sec. Maintenance requirements - Two full growing seasons after the date of the inspection of new tree installations, the town landscape architect will inspect all trees on the project site. Any trees planted to meet the required tree site density factor which are dead or near death must be replaced.

Trees preserved to meet the required site densities which are dead or near death at the time of the maintenance inspection must be replaced if there is evidence that the demise of such trees was due to

Sample Tree Preservation and Landscaping Ordinance: Town of Sharpsburg

construction injury. Trees which are used to meet the density requirements for this article shall be maintained for 24 months after the date of the final inspection. The property owner shall maintain the required tree density.

It shall be the duty of any person or persons owning or occupying property subject to this article to maintain said property in good condition so as to present a healthy, neat, and orderly appearance. Property shall be kept free from refuse and debris. Planting beds shall be mulched to prevent weed growth and maintain soil moisture. Plant materials shall be pruned as required to maintain good health and character. Turf areas shall be mowed periodically. All roadways, curbs, and sidewalks shall be edged when necessary in order to prevent encroachment from adjacent grassed areas.

Sec. Irrigation requirements - Irrigation is to be provided for landscaped areas fronting multi-family, commercial and industrial developments. Irrigation is also to be provided along all road frontage for these types of developments.

Irrigation systems can be beneficial in efficiently adding water to the landscape. Landscaped areas shall be irrigated by the use of an automatic irrigation system with controllers. The water demand of lawn areas is significantly greater than the water demand of most trees, shrubbery, or ground cover areas. Wherever feasible, sprinkler head irrigating lawns or other head water demand landscape areas shall be circuited so that they are on a separate zone or zones for those irrigating trees, shrubbery or other reduced water requirement areas.

Automatically controlled irrigation systems shall be operated by an irrigation controller that is capable of watering high water requirement areas on a different schedule from low water requirement areas.

No significant overthrow shall be allowed onto non-pervious areas. Irrigation circuits shall apply water onto lawn areas on a different schedule than those irrigating the planting beds. Low trajectory heads or low volume water distributing devices shall be used. Irrigation controllers shall be capable of irrigating grass and tree-shrub zones on different schedules.

Sec. Penalties - Any person, firm, corporation, company, or partnership violating any provision of this article shall be punished for each violation, up to the extent allowed by the Town Charter. Where an offense continues from day to day, each day's continuance thereof shall be deemed a separate offense. Each tree cut, damaged, or poisoned shall constitute a separate offense. The owner of premises, where anything in violation of this article shall exist, or any person, firm, corporation, company, or partnership who may have assisted in the commission of such violation shall be guilty of a separate offense and, upon conviction thereof, shall be punished as herein provided.

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TOWN OF SHARPSBURG'S PLANT PALETTE

(Signature plants in boldface)

(* denotes evergreen)

Botanical Name	Common Name
LARGE CANOPY/SHADE TREES	
Acer barbatum	Florida Maple
Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Betula nigra	River Birch
Carya species	Hickory
Celtis laevigata	Sugar Hackberry
Cercidiphyllum japonicum	Katsura Tree
Fagus grandiflora	American Beech
Fraxinus americana	White Ash
Fraxinus pennsylvanica	Red Ash
Ginkgo biloba	Ginkgo
Liriodendron tulipifera	Tulip Poplar
Magnolia grandiflora*	Southern Magnolia
Metasequoia glyptostroboides*	Dawn Redwood
Nyssa sylvatica	Black Gum
Ostrya virginiana	Ironwood
Pinus strobus*	White Pine

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Pinus taeda*	Loblolly Pine
Pinus virginiana*	Virginia Pine
Platanus occidentalis	Sycamore
Quercus alba	White Oak
Quercus coccinea	Scarlet Oak
Quercus falcata	Southern Red Oak
Quercus laurifolia	Laurel Oak
Quercus nigra	Water Oak
Quercus palustris	Pin Oak
Quercus rubra	Northern Red Oak
Quercus shumardii	Shumard Oak
Quercus stellata	Post Oak
Quercus phellos	Willow Oak
Tilia cordata	Littleleaf Linden
Ulmus parvifolia	Lacebark Elm
Zelkova japonica	Japanese Zelkova
UNDERSTORY AND ORNAMENTAL TREES	
Acer buergerianum	Trident Maple
Acer campestre	Hedge Maple
Acer ginnala	Amur Maple
Acer griseum	Paperbark Maple

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Acer palmatum	Japanese Maple
Amelanchier arborea	Serviceberry
Carpinus caroliniana	American Hornbeam
Cedrus deodara	Deodar Cedar
Cercis canadensis	Eastern Red Bud
Chionanthus virginicus	Fringe Tree
Cornus florida	Flowering Dogwood
Cornus kousa	Kousa Dogwood
Crataegus phaenopyrum	Washington Hawthorne
Cryptomeria japonica*	Cryptomeria
Cupressocyparis leylandii*	Leyland Cypress
Halesia carolina	Carolina Silverbell
Hamamelis virginiana	Witch Hazel
Illicium floridanum	Florida Anise Tree
Ilex aquafolium x 'Nellie R. Stevens**	Nellie R. Stevens Holly
Ilex attenuata x 'Fosteri**	Foster's Holly
Ilex attenuata x 'Savannah**	Savannah Holly
Ilex opaca*	American Holly
Ilex vomitoria (treeform)*	Treeform Yaupon Holly
Juniperus virginiana*	Red Cedar

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Koelreuteria paniculata	Goldenrain Tree
Lagerstroemia indica	Crape Myrtle
Magnolia soulangiana	Saucer Magnolia
Magnolia stellata	Star Magnolia
Magnolia virginiana*	Sweetbay Magnolia
Malus species	Flowering Crabapple
Myrica cerifera (treeform)*	Treeform Wax Myrtle
Ostrya virginiana	Eastern Hophornbeam
Oxydendrum arboreum	Sourwood
Pistacia chinensis	Chinese Pistache
Prunus caroliniana*	Cherry Laurel
Prunus species	Flowering Cherry
Pyrus calleryana x Chanticleer	Chanticleer Pear
Sassafras albidum	Sassafras
Sophora japonica	Japanese Pagodatree
Taxodium distichum	Bald Cypress
Vitex agnus-castus	Chaste Tree
LARGER SHRUBS	LARGER SHRUBS
Abelia grandiflora*	Glossy Abelia
Aesculus pavia	Red Buckeye
Aesculus parviflora	Bottlebrush Buckeye

Sample Tree Preservation and Landscaping Ordinance: Town of Sharpsburg

Aucuba japonica*	Aucuba
Buxus sempervirens*	Common Boxwood
Camellia japonica*	Camellia
Camellia sasanqua*	Sasanqua Camellia
Cleyera japonica*	Japanese Cleyera
Elaeagnus pungens*	Elaeagnus
Forsythia suspensa	Border Forsythia
Hibiscus syriacus	Shrubalthea
Hydrangea quercifolia	Oakleaf Hydrangea
Ilex aquafolium x 'Nellie R. Stevens**	Nellie R. Stevens Holly
Ilex attenuata x 'Fosteri**	Foster's Holly
Ilex attenuata x 'Savannah**	Savannah Holly
Ilex latifolia*	Lusterleaf Holly
Ilex cornuta 'Burfordii**	Burford Holly
Ilex opaca*	American Holly
Ilex verticillata	Deciduous Holly
Ilex vomitoria*	Yaupon Holly
Kerria japonica	Kerria
Loropetalum chinense*	Loropetalum
Miscanthus varieties	Miscanthus

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Myrica cerifera*	Wax Myrtle
Osmanthus fragrans*	Fragrant Tea Olive
Pieris japonia*	Japanese Pieris
Prunus caroliniana*	Cherry Laurel
Rhodendron indica*	Indica Azaleas
Rhododendron species	Native Azalea
Rhododendron species*	Rhododendron
Viburnum opulus	Snowball Viburnum
Viburnum sieboldi	Siebold Viburnum
Viburnum plicatum X tomentosum	Doublefile Viburnum
SMALL/MEDIUM SHRUBS	
Azalea obtusum*	Kurume Azalea
Azalea hybrida*	Glenn Dale Azalea
Berberis thunbergi	Japanese Barberry
Buxus microphylla*	Dwarf Boxwood
Callicarpa americana	Beautyberry
Calycanthus floridus	Sweet Shrub
Chaenomeles speciosa	Common Flowering Quince
Clethra alnifolia	Summersweet Clethra
Cotoneaster horizontalis*	Rock Cotoneaster
Duetzia gracilis	Slender Deutzia

Sample Tree Preservation and Landscaping Ordinance: Town of Sharpsburg

Euonymus alatus compactus	Dwarf Winged Euonymus
Forsythia x intermedia	Forsythia
Fothergillia gardenii	Dwarf Fothergilla
Gardenia jasminoides*	Gardenia
Hydrangea arborescens	Snowhill Hydrangea
Hydrangea macrophylla	Bigleaf Hydrangea
Hydrangea paniculata	Panicle Hydrangea
Hydrangea quercifolia	Oakleaf Hydrangea
Ilex cornuta 'Burfordii nana**	Dwarf Burford Holly
Ilex cornuta 'Carissa**	Carissa Holly
Ilex vomitoria 'Nana**	Dwarf Yanpon Holly
Itea virginica	Virginia Sweetspire
Jasminum floridanum*	Flowering Jasmine
Jasminum nudiflorum	Winter Jasmine
Juniper species*	Spreading Junipers
Juniper species*	Upright Junipers
Leucothoe populifolia*	Florida Leucothoe
Mahonia aquifolium*	Oregon Grape Holly
Mahonia bealei*	Leatherleaf Mahonia
Nandina domestica*	Nandina

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Prunus laurocerasus 'Otto Lukyen**	Otto Lukyen Laurel
Prunus laurocerasus 'Schipkaensis**	Skip Laurel
Prunus laurocerasus 'Zabeliana**	Zabel Laurel
Raphiolepis indica*	Indian Hawthorn
Rosa species	Shrub Roses/Old Roses
Spiraea species	Spirea
Weiglea florida	Old Fashioned Weiglea
GROUND COVERS	
Hedera helix*	English Ivy
Hemerocallis species	Day Lilies
Hosta species	Hosta
Iberis sempervirens*	Evergreen Candytuft
Iris species	Iris
Juniperus horizontalis*	Creeping Junipers
Lantana sellowiana	Trailing Lantana
Liriope muscari*	Bigblue Liriope
Liriope spicata*	Creeping Liriope
Narcissus species	Daffodils
Ophiopogon japonicus*	Mondo Grass
Pachysandra terminalis*	Pachysandra
Phlox subulata	Thrift

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Vinca minor*	Common Periwinkle
Vinca major*	Large Periwinkle
VINES	
Campsis radicans	Trumpet Vine
Clematis species	Clematis
Euonymus fortunei*	Wintercreeper
Gelsemium sempervirens*	Carolina Yellow Jessamine
Lonicera sempervirens	Trumpet Honeysuckle
Parthenocissus quinquefolia	Virginia Creeper
Rosa banksiae*	Lady Banks Rose
Rosa hybrida	Climbing Roses
Wisteria species	Wisteria
FERNS	
Adiantum Capillus-Veneris	Maidenhair Fern
Asplenium Filix-foemina	Southern Lady Fern
Asplenium platyneuron	Ebony Spleenwort
Osmunda cinnamomea	Cinnamon Fern
Osmunda regalis	Royal Fern
Polystichum acrostichoides	Christmas Fern