

CHAPTER 9. LANDSCAPING AND BUFFERING

9.1 General

9.1.1 Purpose and Intent

The standards of this section provide for the preservation of existing vegetation and for the installation and maintenance of new vegetation and other landscape architectural features. The purpose of these standards is to:

- (1) Improve property and community appearance without compromising community safety, including minimization of the visual impact of extensive land disturbance;
- (2) Allow for the ecological benefits provided by plant materials, including protection of land from unnecessary erosion and watercourse sedimentation, reduction of stormwater runoff, improvement of air quality, and provision of wildlife habitat;
- (3) Reduce the heat island effect;
- (4) Enhance the beauty of the built environment; and
- (5) Enhance the attractiveness and value of commercial areas and the privacy and welfare of residential areas by buffering incompatible land uses, where potential impacts cannot be mitigated through design compatibility concepts or transitional features.

9.1.2 Applicability

- (1) The landscaping and buffering standards of this section shall apply to all proposed development for which a minor or major site plan, development plan, or preliminary plat is required.
- (2) Land used toward achieving the requirements of the section need not hold the same zoning designation as the use to which the landscaping and buffer applies, unless the property is zoned with a development plan showing all requirements met onsite. If the landscaping or buffer is not on site, the landscaping shall either be on the same lot or on contiguous property under the same permanent possession or control as the lot on which the use is located.

9.1.3 Variations: The approving authority may modify the buffer and landscape standards of this chapter where:

- (1) There are special considerations of site design and/or topography.
- (2) The plantings or planting area would conflict with utilities, easements, or overhead power lines, or encroach upon City trees.

- (3) Proposed street widening not provided by the developer will consume the landscaping area.
- (4) The approving authority may require alternative buffers or landscaping, including locations other than those typically required, when a modification to the requirements of this section is warranted in order to meet the intent of the specified standards.

9.2 Landscape Design Principles

The following standards are intended to ensure that community appearance, the value of property, environmental quality, or the safety of residents and visitors are not compromised through poor landscape design. These standards shall be balanced against other objectives of landscaping, such as sheltering, buffering and screening purposes in the review of landscape plans.

- (1) Landscaping should contribute to the livability of the environment.
- (2) A “water-wise” approach to landscape materials (including mulch), design and installations is encouraged. The amount of irrigation and maintenance required for landscaping should be minimized.
- (3) Landscaping in the Agriculture/Open Space and Low Density Residential zoning districts should be clustered to provide a natural impression. Landscaping in the other zoning districts may be arranged more formally.
- (4) Landscaping should be selected, installed and maintained so that it allows unobstructed views of vulnerable doors and windows from the street and other properties and avoids blind spots and hiding spaces.
- (5) Landscape materials should be selected and arranged to add variety and visual interest.
- (6) Site landscaping and streetscapes should be compatible and complement one another.
- (7) Site landscaping shall not conflict with utility placement.
- (8) Landscaping should be used to define property lines and private areas with planting areas, pavement treatments, or walls and fences.
- (9) Landscaping, fences, walls and paving treatments should be designed to guide visitors to desired entrances and away from private areas.
- (10) Plant placement in buffers may include clustering; however, such clustering should be reflected in plant placement that provides the maximum protection of neighboring properties.
- (11) Landscaping should be used to divide parking areas into smaller lots.

9.3. Basic Plant Types

9.3.1 Definitions

There are five (5) basic plant types referred to in this section, and all shall require the use of locally-adapted plants. They include canopy trees, evergreen trees, deciduous understory trees, evergreen understory trees and shrubs, defined as follows:

- (1) Canopy Trees: Large deciduous shade trees with a mature height of twenty (20) feet or greater.
- (2) Evergreen Trees: Trees at least twenty (20) feet tall at maturity that usually have green foliage throughout all seasons of the year.
- (3) Deciduous Understory Trees: Small deciduous trees or large deciduous shrubs with a mature height of ten to thirty (10 to 30) feet, except under overhead utilities, where lower heights at maturity may be required.
- (4) Evergreen Understory Trees: Trees or large shrubs at least ten (10) feet tall at maturity that usually have green foliage throughout all seasons of the year.
- (5) Shrubs (Deciduous and Evergreen): Prostrate or upright woody plants, either evergreen or deciduous, with a mature height usually less than ten (10) feet. Evergreen shrubs usually have green foliage throughout all seasons of the year.

9.3.2 Plant Material Requirements: Unless specified elsewhere in this Code, plant material shall meet the minimum requirements listed below. When determining the quantity of plant material required, the quantity shall always be rounded up to the nearest whole number. All plant material shall meet or exceed size and shape relationships and quality standards specified in the latest edition of The American Standard for Nursery Stock published by the American Association of Nurserymen.

- (1) Trees: Canopy trees shall have a minimum size of two (2) inch caliper at time of planting, except that trees planted to meet requirements of Section 9.5, Street Trees, shall be of minimum three (3) inch caliper size at time of planting, measured at six (6) inches above the ground or root base of the tree.
 - (a) Evergreen trees shall have a minimum height of eight (8) feet at the time of planting.
 - (b) Deciduous understory trees with single stems shall have at a minimum size of one (1) inch caliper and a minimum height of eight (8) feet at the time of planting.
 - (c) Multi-stemmed deciduous understory trees shall have a minimum height of eight (8) feet at the time of planting.

(d) Evergreen understory trees shall have a minimum height of six (6) feet at the time of planting.

(e) All trees shall be at least fifteen (15) gallon container size.

9.3.3 Mixing of Tree Species

When more than twenty (20) trees are required to be planted on a site to meet these regulations, a mix of species shall be provided. The following table indicates the maximum percentage of trees of the same genus and species that may be planted.

Total Trees Planted on Site		Maximum Percentage of Any Species
20 trees or fewer	1	not applicable
21 to 50 trees	2	70%
51 to 100 trees	3	50%
Over 100 trees	4	40%

9.3.3 Shrubs

(1) All shrubs shall be cold hardy and heat tolerant.

(2) Upright shrubs shall be a minimum of fifteen (15) inches in height at the time of planting and at least three (3) gallon size.

(3) Shrubs shall not be planted closer than one half (½) their mature size. Shrubs shall not be planted closer than one half (½) of their mature size to or infringe in the root ball of planted trees, nor within six (6) feet of existing protected trees. No more than twenty-five percent (25%) of the root protection zone of an existing tree may be disturbed with new plantings.

(4) When planted as a hedge, the maximum spacing for twenty-four (24) inch high deciduous shrubs shall be thirty-six (36) inches on center. Spacing for other size shrubs shall be determined by the Development Services Director or designee based on the proposed species.

(5) Perennial ornamental grasses or groundcover plants may be substituted for up to 20% of required planting areas or shrub plantings with approval of the plan reviewer.

9.3.4 Mixing of Shrub Species

When more than twenty (20) shrubs are required to be planted on a site to meet these regulations, a mix of species shall be provided, as long as it does not negatively affect the overall planting design of the development. The following table indicates the maximum percentage of shrubs of the same genus and species that may be planted.

Total Shrubs Planted on Site		Maximum Percentage of Any Species
20 shrubs or fewer	1	not applicable
21 to 50 shrubs	2	70%
51 to 100 shrubs	3	50%
Over 100 shrubs	4	40%

9.3.4.1 Plant Variations: The Development Services Director, or designee, shall have the authority to allow variations in the mix of plants required, up to a maximum of twenty percent (20%) of the total required plant type, in order to encourage creativity in landscape design, to more effectively create a buffer or screen, to handle unique site issues such as existing tree species or topography, or to allow for more efficient irrigation or water use practices.

9.3.4.2 Preferred Species: The Departments of Development Services and Public Works shall maintain a list of plants by type and their preferred location or use on sites developed in the City of Tupelo. The list shall include drought tolerant species.

9.3.5 Prohibited Plants

The Departments of Development Services and Public Works shall maintain a list of plants that are not permitted for any use due to their invasive tendencies. Such species shall not be planted as landscaping for any purpose.

9.4 Landscape Plans

Professional Preparation required.

Landscaping plans shall be prepared and sealed by Mississippi licensed landscape architects or other Mississippi licensed design professionals, as indicated by the Mississippi Landscape Architect Registration Act, or persons with a Mississippi Landscape Gardening License issued by the Mississippi Bureau of Plant Industry.

9.4.1 Installation

- (1) Trees may be planted in access or utility easements, including stormwater management facilities, provided that they are a species adapted for the nature of the easement and, in all easements other than overhead utilities, the entity responsible for the easement approves the location of the trees proposed for planting prior to installation.
- (2) Existing trees may remain in dry detention ponds provided that the natural grade is undisturbed to the tree line, they are a species adapted to seasonal flooding and the pond can be adequately maintained.
- (3) Shrubs shall be installed at least five (5) feet away from the flow line of a swale, unless the planting is specifically designed for stormwater management practices such as a bio-swale.

- (4) Shrubs may be planted in a public utility easement provided they are planted only within the outer three (3) feet of the easement and are approved by the utility provider prior to installation.
- (5) Groundcovers may be planted around trees, provided they do not infringe on the root ball of the planted tree. Organic mulch shall be used in all areas where no other ground cover or grass is used to avoid bare spots and promote “water-wise” landscaping. The use of gravel or crushed stone as ground cover shall be permitted only in landscape beds adjacent to drive-through lanes, entrances, and other locations where risk of fire is present. Otherwise, such inorganic material shall not be used except with the approval of the Development Services Director prior to installation.

9.4.2 Certification

The Development Services Director may authorize Mississippi licensed landscape architects to certify that landscape plantings have been installed in conformance with the approved landscaping plan including planting sizes, species, and installation techniques in lieu of inspection by the Development Services Department.

9.4.3 Exemptions for Security Plan

Government facilities, parks, public safety facilities or other uses that may have site visibility concerns may submit to the Development Services Department a Site Security Plan requesting landscaping that deviates from the standards of this section. The Director of Development Services may approve the Site Security Plan, with or without conditions, on finding that the deviation from the standards are necessary for protection of the public and will not have a significant adverse effect on neighboring lands.

9.5 Street Trees

9.5.1 Applicability

All development shall be conducted in accordance with this section except that additions to existing residential buildings and residential development in the Agriculture/Open Space District shall be exempt from the provisions of this section.

9.5.2 Required Street Trees

- (1) In all developments except residential development in the Agriculture/Open Space District, the developer shall either retain or plant trees such that there is an average of at least one (1) street tree for every forty (40) feet of street frontage along the sides of all existing and proposed rights-of-way (except alleys), and private street easements.
- (2) Street trees shall be located within the right-of-way or street easement unless the City Public Works Director or MDOT, or designees as appropriate, authorize their location

outside a right-of-way or where the location of the street trees in the right-of-way will conflict with public utilities. If a conflict exists with public utilities, street trees shall be located in the required front yard.

- (3) The location of street trees may be varied, as long as there is a minimum of one (1) tree every one-hundred (100) feet of street frontage, unless the Public Works Director or designee approves an alternate pattern to allow design flexibility for location of access points, sight clearance, or other similar factors.
- (4) Street trees shall be of a canopy type species included on the Public Works Director's list of acceptable street tree species. Where required by overhead utilities, understory type trees may be substituted.

9.5.3 Credit for Existing Trees

- (1) Developers may use existing trees to meet the requirements of this section, as long as existing trees are protected in accordance with the standards of Section 9.11, Tree Protection.
- (2) Trees preserved to meet other requirements of this Ordinance may be used to meet the requirements of this section as well, provided they meet the minimum size and location requirements of this section.

9.5.4 Street Tree Installation

- (1) Required street trees shall be clearly noted on any site plan, preliminary plat, or final plat.
- (2) Street trees shall be at least three (3) inch caliper, unless an alternate size which addresses unique site characteristics is approved by the Development Services Director, or designee.
- (3) In the Agriculture/Open Space and Low Density Residential zoning districts, at least two hundred-fifty (250) square feet of contiguous growing area without encroachments shall be provided for each tree. The Public Works Director, or designee, shall have the authority to approve a street tree growing area of smaller size where special features are utilized in the site design to provide for adequate growth of street trees.
- (4) In all other zoning districts, at least two hundred (200) square feet of contiguous growing area, without encroachments other than sidewalks, shall be provided for each tree. The Public Works Director, or designee, shall have the authority to approve a street tree growing area of a smaller size where special features are utilized in the site design to provide for adequate growth of street trees.
- (5) Planting location shall take into consideration any roadway widening identified on approved thoroughfare plans but not provided by the development.

- (6) Required street trees shall be planted before a Certificate of Compliance is issued, unless the planting has been postponed to the appropriate season in accordance with the requirements of Sec. 9.12.3., Extensions.

9.6 Screening

9.6.1 Applicability

- (1) This section shall apply to the following:
 - (a) Electrical transformers or switching gear, air handlers and similar mechanical equipment in multifamily or nonresidential development;
 - (b) Outdoor storage;
 - (c) Loading areas;
 - (d) Trash handling facilities, including dumpsters and recycling; and
 - (e) Uses for which screening is required as a condition of approval.
- (2) The features and uses listed above need not be screened from similar features and uses on adjacent lots, or within the Industrial zoning districts, except where project boundary buffers would be required pursuant to Section 9.9, Project Boundary Buffers.

9.6.2 Standards: Features and uses specified above shall provide a visual obstruction from adjacent properties in conformance with the following standards:

- (1) The screen may be composed of view-obscuring vegetation used individually, or in combination with a wall, opaque fence, or berm to provide a fully opaque barrier of at least eight (8) feet in height. Trash handling facilities shall be screened with a masonry enclosure and an opaque gate to the height of the facilities plus six (6) inches. Smaller trash handling equipment may be screened with a solid board fence at least six (6) feet in height.
- (2) When vegetation is the primary source of screening, evergreen shrubs at least two (2) feet tall at the time of installation and capable of reaching the desired height within two (2) years of planting shall be installed, at a maximum of three (3) feet on center. Vegetation used to screen electrical equipment shall not be planted closer than three (3) feet from the equipment.
- (3) Except for screening around roof-top equipment, one upright shrub of an evergreen species shall be installed per four (4) linear feet of any wall or fence that faces off-site.
- (4) Plant material in project boundary buffers may be counted towards the requirements of this section when located to serve both functions.

9.7 Vehicular Use Area Landscaping

9.7.1 General

9.7.2 Vehicular Use Area Defined

For the purposes of this section, areas used for vehicle service, parking (including structured parking), parking lot drive aisles, and business transactions such as areas adjacent to gasoline pumps (even if under a canopy) and areas for drive-up service, shall be considered vehicular use. Driveways that are perpendicular or nearly perpendicular to the street and serve as an entrance to the site shall not be considered vehicular use areas for purposes of this section.

9.7.3 Applicability

The following areas shall meet the requirements of this section:

- (1) Any new off-street parking area containing ten (10) or more spaces or vehicular use area of three thousand-five hundred (3,500) square feet or more.
- (2) Any expansion of an existing off-street vehicular use area consistent with the dimensions identified above.
- (3) Any redevelopment of a site if the vehicular use area associated with the building meets the standards listed above. Projects involving building renovation only shall not be required to meet these standards unless change in building use requires additional parking to be provided.

9.7.4 Exception

Landscaped area and planting requirements for automobile dealership display areas in front and side lot areas may be satisfied by installation on other parts of the property or in alternative locations as approved by the Development Services and Public Works Directors. Display and storage areas located in the rear of the building are not required to meet landscaping requirements. Customer and employee parking areas on automobile dealership properties must meet landscaping standards.

9.7.5 General Standards

- (1) Irrigation shall be provided on all sites for which five thousand (5,000) square feet or more of area planted with trees, shrubs, or bedding plants as required under this section 10.7.

- (2) Irrigation plans to be bid shall be prepared and sealed by a Mississippi licensed landscape architect or other Mississippi licensed design professional, as indicated by the Mississippi Landscape Architect Registration Act.
- (3) No canopy trees used for vehicular use area landscaping credits shall be planted farther than ten (10) feet from the edge of the vehicular use area. No understory trees or shrubs shall be planted farther than fifteen (15) feet from the edge of the vehicular use area. All shrubs and trees shall be located at least three (3) feet from either the back of curb of the vehicular use area or back of wheel stops.
- (4) Plant materials shall be located to facilitate safe sight distances within parking lots. Plants located at the end of parking lot islands, within the sight distance triangles, or in medians shall be a species with a maximum mature height of thirty (30) inches.
- (5) Tree planting and site lighting shall be coordinated to reduce conflicts between mature trees and light standards.

9.7.6 Vehicular Use Area Perimeter Landscaping

- (1) **Vehicular Use Areas Visible From Streets:** Any vehicular use area subject to this section that has exposure to a public or private street (except an alley), and is located within fifty (50) feet of a right-of-way or access easement shall provide a landscaped area, adjacent to and outside of the street right-of-way or access easement, equal to five (5) square feet for each linear foot of street frontage, less driveways, which may cross required landscape areas if constructed at angles perpendicular or nearly perpendicular to property lines.
- (2) Street trees provided to meet the requirements of Section 9.5, if not located within the right of way, shall be placed in this landscape area.
- (3) Any landscaped area used for credit shall be a minimum of three (3) feet in width.
- (4) Shrubs shall be planted at the rate of one (1) fifteen (15) inch high shrub per four (4) linear feet of property line abutting public streets less driveways. The spacing may be varied based upon size of installed plant materials.
- (5) Except within sight distance triangles, such shrubs shall be of a species expected to reach a minimum height of thirty (30) inches and a minimum spread of thirty (30) inches within three (3) to five (5) years of planting. At least sixty percent (60%) of shrubs shall be evergreen.
- (6) A wall consistent with the requirements of Section 7.5, Fences and Walls, at least thirty (30) inches tall and not exceeding four (4) feet in height may be substituted for the required shrubs.

9.7.7 Vehicular Use Areas Visible from Adjacent Property

- (1) Any vehicular use area subject to this section on projects not required to provide a project boundary buffer pursuant to Section 9.9, Project Boundary Buffers, shall provide a landscaped area between the edges of the vehicular use area pavement and the side property lines, unless the property lines fall within a vehicular use area in common use.
- (2) The minimum width of the landscaped area shall be large enough to accommodate the plant materials required below, but shall not be less than five (5) feet per linear foot of vehicular use area edge facing off site, unless wheel stops are provided, in which case the minimum width may be reduced to four (4) feet.
- (3) Required landscaping shall consist of the following materials:
 - (a) Understory trees, at the rate of one (1) per twenty-five (25) feet, with a contiguous growing area of one hundred-twenty-five (125) square feet and a minimum dimension of seven and one half (7 ½) feet.
 - (b) Evergreen shrubs, fifteen (15) inch minimum height, at the rate of one (1) per eight (8) linear feet of required planting area.
 - (c) When adjoining properties are already developed with parking lots adjacent to the proposed site and have landscaping installed comparable to the requirements of this section, fifty (50%) of the required plant materials shall be required.

9.7.8 Interior Landscaping

- (1) Development with vehicular use areas exceeding three thousand-five hundred (3,500) square feet (including accessory drives and aisles but excluding areas under canopies and within structured parking, and excluding enclosed storage or service areas to the rear of principal buildings) shall provide and maintain landscaped areas based upon the surfaced vehicular use area.
- (2) Areas used for landscaping shall be provided in the amount equivalent to at least twelve percent (12%) of the vehicular use area located between the principal building and the street right of way, and eight percent (8%) of vehicular use area located behind the front line of the principal building, which shall be used for planting trees and shrubs according to the standards below.
- (3) Minimum curb radii of three (3) feet shall be required on the corners of all tree islands and medians to allow for free movement of motor vehicles around planting materials. All islands or medians shall have curbs, raised edging or other devices (such as wheel stops) around them to protect plants from being damaged by motor vehicles.
- (4) Trees shall be planted at a rate of one (1) two (2) inch caliper canopy tree per two thousand-five hundred (2,500) square feet of vehicular use area located between the principal

building and the street right of way, and one (1) two (2) inch caliper canopy tree per five thousand (5,000) square feet of vehicular use area located behind the front line of the principal building. Tree planting areas shall be located such that no parking space is farther than fifty (50) feet from a canopy tree trunk, except for parking spaces used for display of vehicles for sale.

- (5) Landscaped areas surrounded by impervious surfaces shall have a minimum width of ten (10) feet when they include canopy or understory trees, and shall contain at least two hundred (200) square feet of growing area per tree. Larger growing areas may be required, depending on the species of tree planted.
- (6) One (1) shrub shall be required per four hundred (400) square feet of vehicular use area located between the principal building and the street right of way, and one (1) shrub per eight hundred (800) square feet of vehicular use area located behind the front line of the building.
- (7) This rate may be varied by the Development Services Director or designee considering alternate shrub heights, ground covers, or other factors in accordance with the Development Services Department's landscape standards.
- (8) Alternate planting designs may be approved by the Development Services Director, or designee, provided the design demonstrates that at least thirty-five percent (35%) of the vehicular use area shall be shaded during the summer months within fifteen (15) years of planting.
- (9) All canopy trees located within vehicular use areas shall be limbed up to a height of six (6) feet to allow for clear views under them.

9.8 Existing Vegetation Credits for Required Landscaping

9.8.1 A developer may use existing healthy vegetation that is classified as a preferred species to meet some or all applicable landscaping requirements. Vegetation to be saved shall meet all requirements of Section 9.11, Tree Protection and Tree Coverage Preservation.

9.8.2 Existing Trees

- (1) Healthy trees may be retained and credited toward landscaping requirements if each tree proposed for credit has a caliper of at least four (4) inches and all requirements of Section 9.11, Tree Protection and Tree Coverage Preservation are satisfied. Credit given for existing, healthy, protected trees shall be a number equal to the two (2) times the value of the diameter at breast height of each protected tree for requirements expressed in total caliper inches, such as the mitigation of removed trees. For requirements expressed as a number of trees, the total caliper inches of qualifying retained trees shall be divided by the applicable minimum size in caliper inches.

- (2) In order to receive credit for any retained trees, at least eighty percent (80%) of the root protection zone shall remain undisturbed. Trees whose root protection zones fall outside the protected area but are within larger groups of trees, shall not count toward any landscaping requirements but shall be left in place unless they are diseased or otherwise hazardous to the integrity of the buffer or the development.

9.8.3 Sampling

- (1) As an alternative to a full site tree survey, the Development Services Director may approve the use of sampling. Where authorized, all trees, shrubs and groundcover within a minimum twenty (20) foot by twenty (20) foot area for each unique stand of vegetation proposed to be retained shall be inventoried and identified on the landscape plan.
- (2) Photographs may be used to supplement the sample but shall not replace it. For purposes of determining preserved tree coverage, shrubs and groundcover need not be included in the sampling.
- (3) The Development Services Director may require additional sample areas as needed to ensure a representative sample of the existing vegetation.

9.9 Project Boundary Buffers

9.9.1 Applicability

- (1) Project boundary buffers shall be required when making application for all site plan, development plan, or preliminary plat approvals when a proposed use is of higher intensity or impact than an adjacent use or adjacent zoning district.
- (2) “High impact uses” include multi-family housing developments of nine (9) or more units, adult entertainment establishments, airports, animal shelters, asphalt or concrete plants, correctional facilities, crematories, dog kennels, drinking establishments, engine repair establishments, firing ranges, junkyards, manufacturing, railroad facilities, recycling facilities, resource extraction, trucking companies, truck stops, major utilities, vehicle services, warehouse and distribution facilities, retail buildings greater than forty thousand (40,000) square feet, and waste related facilities.
- (3) Project boundary buffers with varying width and planting requirements, or transitional features, shall be provided according to Table 9.9.1. Buffers may also be required as a condition of approval of a compatible or flexible use or development plan.
- (4) Some uses may require additional buffering, as set forth in Chapter 11, Additional Standards for Certain Permitted Uses.

- (5) No project boundary buffers shall be required for property in the MUD or MUR Districts, except where multi-family housing is proposed for development adjacent to single family detached housing.
- (6) Location: Required project boundary buffers shall be provided along the perimeter of any lot or development except adjoining street or railroad rights-of-way.
- (7) Project boundary buffers shall be designated and dimensioned on all site plans and preliminary plats.

TABLE 9.9

TRANSITION AND BUFFER REQUIREMENTS						
Existing Use	High Impact Non-res./9+ units	Other non-res.	2-8 units Residential	Mixed Use	Single Family Residential	Undeveloped
Developing Use						
High Impact Non-Res./Multi-Family 9+	N/A	Buffer B	Buffer A	Buffer A	Buffer A	Buffer B
Other Non-Res.	[Buffer C]	N/A	Buffer B	Transition	Buffer B	Buffer for most protected use allowed
2-8 Unit Multi-Family	[Buffer C/ Transition]	[Buffer D or Transition]	N/A	Transition	Buffer C	As above
Mixed Use	[Buffer B]	[Transition]	[Transition]	N/A	Buffer C or Transition	Buffer D
Single Family	[Buffer A]	[Buffer B]	[Buffer B]	[Transition]	N/A	N/A

Note: Bracketed items are suggested, not mandatory.

9.9.2 Walls, Berms and Fences in Buffers: Where walls, berms or fences are built within any required project boundary buffer, they shall meet the following requirements:

- (1) All walls, when located within a buffer, shall be planted on the side facing the adjacent property with at least one (1) upright shrub for every six (6) feet of wall length. Where shrubs are planted adjacent to a wall, the minimum distance between the wall and the property line shall be four (4) feet.
- (2) The applicant shall be required to demonstrate provision for access and maintenance of landscaping and the wall structure at the time of landscape plan approval.
- (3) Berms located within a buffer shall have side slopes of not less than three (3) feet horizontal for each one (1) foot vertical and a minimum crown width of two (2) feet.
- (4) Prior to issuance of the first certificate of compliance, berms shall be planted to ensure coverage by live plant material within three (3) to five (5) years.
- (5) Fences shall be maintained in a structurally safe and attractive condition and with finished faces and plantings located towards the adjacent property with at least one (1) upright shrub for every six (6) linear feet of fence length.

9.9.3 Separate Parcels for Stormwater Management: Where a separate legal parcel is permitted for stormwater management, buffers consistent with those required for the remainder of the project shall be required.

9.9.4 Permitted Activity Within Project Boundary Buffers:

- (1) Driveways or walkways may cross a project boundary buffer, provided they cross at as near a perpendicular angle as practical. Walking paths or trails may be placed within project boundary buffers.
- (2) Existing specimen trees, as defined in Section 9.6, Protection of Existing Vegetation, that are located within a required project boundary buffer shall be retained, except where the approving authority determines that the removal of such trees is required to provide safe and reasonable access to the property.

9.9.5 Variations in Buffer Width

Buffer width shall normally be calculated as perpendicular to the property line, however, design variations may be allowed and shall be calculated based on the average width of the buffer per one hundred (100) feet or portion thereof. In no case shall the minimum width of the buffer be less than one-half (½) the required width. The maximum width, for the purposes of installing required landscaping or receiving credit for existing vegetation, shall not be more than one and one-half (1 ½) times the required buffer width.

9.9.6 Off-Site Vegetation

Existing plant material on adjacent property may be credited toward buffer requirements, provided that such material is in a permanently protected area such as a conservation or landscape easement or similarly preserved area. Credit for offsite plant material shall be calculated as provided in Section 9.8.

9.9.7 Standards

- (1) Constructed Buffer: The following four (4) basic buffer templates and two (2) alternatives are to be used as specified in table 9.9.
 - (a) The Type A Opaque Buffer is used between high impact uses and residential or mixed uses. It provides a continuous, solid screen to the height of six (6) feet, serving as a sight and noise barrier. The buffer width is fifty (50) feet. Trees required may not have greater than five (5) foot opening between mature canopies. Fifty percent (50%) of trees and one hundred percent (100%) of shrubs must be evergreen.
 - (b) The Type B Opaque Buffer is used in cases of lesser degrees of incompatibility, such as between non-residential uses that are not high impact and residential uses. Its planting requirements are the same as the Type A buffer but with a thirty (30) foot width.
 - (c) The Type C Semi-Opaque Buffer is used in relatively low incompatibility cases; such as between mixed use development and detached dwellings. It provides a semi-solid screen allowing views between properties. The buffer width is twenty (20) feet. Trees

required may not have greater than ten (10) foot opening between mature canopies. No understory trees and fewer shrubs are required.

- (d) The Type D Open Buffer provides a tree buffer while allowing view between properties. The buffer width is ten (10) feet with three (3) canopy trees and three (3) understory trees per one hundred (100) feet of length. The buffer width is ten (10) feet. Canopy spacing is not to exceed twenty (20) feet.
 - (e) The Type E Overhead Utility Buffer shall be permitted only where overhead utilities make larger tree planting impractical. It is defined as the applicable Type A, B, C, or D Buffer with canopy trees replaced by understory trees.
 - (f) The Type F Intense Buffer is an alternative allowing reduction of buffer width by replacing shrubs with a wall, fence or berm. Type A buffers may be reduced to twenty-five (25) feet, type B buffers to twenty (20) feet, Type C buffers to fifteen (15) feet.
 - i. Use of Type F Buffers may be approved as part of site plan, preliminary plat, development plan, compatible use, or flexible use approval. The approving authority may allow comparable flexibility in buffer plantings or dimensions if the design intent of the applicable buffer type is satisfied.
 - (g) All shrubs used to meet constructed buffer requirements shall be upright shrubs.
- (2) Natural Buffers: Existing healthy, natural forest cover and other vegetation shall be used to meet buffer requirements in the Agriculture/Open Space and Low Density Residential Districts as follows:
- (a) Where the existing tree cover exceeds fifteen (15) feet in height; and
 - (b) Where the existing tree canopy covers seventy-five percent (75%) or more of the required buffer area.
 - (c) The minimum width of a required natural buffer shall be fifty (50) feet.
- (3) Natural Buffer as an Option: In zoning districts that do not require use of a natural buffer, a natural buffer may be employed. A minimum natural buffer width of twenty-five (25) feet or the width required to satisfy the applicable constructed buffer requirement, whichever is greater, shall be provided in these instances.
- (a) Tree Protection in Natural Buffers
 - (b) In addition to the requirements of Section 9.11, Tree Protection and Tree Coverage
 - (c) Preservation, trees within natural buffers shall be protected as follows:

- (d) For the trees with a diameter at breast height of thirty (30) inches or less, seventy-five percent (75%) of the root protection zone shall be undisturbed; and
 - (e) For trees over thirty (30) inches diameter at breast height, at least ninety percent (90%) of the root protection zone shall be undisturbed.
- (4) Additional Planting: The Development Services Director, or designee, may require additional planting in a natural buffer if it does not meet the vegetation standards required for the applicable constructed buffer. Sampling of existing vegetation within a natural buffer shall be required to determine if it meets this standard.
 - (5) In zoning districts where buffers are not required, a solid board fence shall be provided between any non-residential use and adjacent detached dwellings.

9.9.8. Land Disturbance Buffers

- (1) Land disturbing activity of five (5) acres or more where no other site improvements are proposed shall require perimeter buffers at all exterior lot lines pursuant to this section.
- (2) Buffers required by this section shall no longer be required if a site plan for other site improvements (other than preliminary plat) has been approved, although buffers may be required by other provisions of this Ordinance.
- (3) If such a site plan or a final plat is approved, the required land disturbance buffer shall be retained until a project boundary buffer pursuant to Section 9.9.1., Constructed Buffers, is installed, or a natural buffer pursuant to Section 9.9.2. Natural Buffers, is approved.
- (4) No grading shall be allowed within land disturbance buffers except to provide reasonable access and for utility installation. Utilities shall be located to limit disturbance to existing vegetation and shall be approved prior to installation.
- (5) Perimeter land disturbance buffers adjoining other properties (along exterior property lines), a minimum of thirty-two (32) feet in width, measured perpendicular to the boundary of the site, shall be in place prior to any land disturbing activity, unless the adjoining property is undeveloped and has had no applications for development filed, in which case no perimeter land disturbance buffers shall be required on those sides of the site proposed for disturbance.
- (6) Such buffers, when required, shall consist of existing vegetation with supplemental vegetation added, when necessary, that meets or exceeds the requirements of Table 9.9, Constructed Buffer.
- (7) Land disturbance buffers along public right-of-way at least fifty (50) feet in width measured perpendicular to the boundary of the site shall be in place prior to any land disturbing activity.

- (8) Such buffers shall consist of preserved vegetation with supplemental vegetation added, when necessary, that meets or exceeds the standards of Table 9.9, Constructed Buffer, exclusive of areas for reasonable access or for utility installation.
- (9) Exemptions: Forestry activities conducted in conformance with a Forest Management Plan that uses the current best management practices as adopted by the Mississippi Forestry Commission shall not require a land disturbance buffer.
- (10) Revegetation: Revegetation is required where land disturbing activity has taken place, and no site plan for improvements has been approved within two (2) years.
 - (a) An owner shall have two (2) years from the date that a site plan is approved for land disturbing activity subject to this section where no other tract improvements are proposed either to secure site plan approval for development of the tract or to revegetate the site.
 - (b) Revegetation required by this section shall not be required upon approval of a site plan for site improvements (other than a preliminary plat) for that portion of the development tract with such improvements proposed. The remainder of the development tract shall continue to require revegetation until a site plan showing other site improvements (other than a preliminary plat) is approved.
 - (c) Standards: So long as the required land disturbance buffers pursuant to this section have been provided and maintained, revegetation of a tract with a ground cover sufficient to restrain erosion shall satisfy the requirement for revegetation.
 - i. If the required land disturbance buffers were not provided and maintained, revegetation of a tract shall create a biological community composed of a mixed and variable assemblage of native vegetation which is appropriate for the existing site conditions with at least three (3) different species of trees native to Mississippi and a tree density of at least two hundred (200) living trees per acre, with at least fifty percent (50%) of those trees having the potential of attaining a two and one-half (2 ½) inch or greater diameter at breast height within seven (7) years.

9.10 Riparian Buffers

9.10.1 Purpose

The primary purpose of the riparian buffer protection standards is to maintain land adjacent to streams in a vegetated state in order to enhance and maintain water quality, protect stream channel wetlands, minimize stormwater runoff, reduce sedimentation and erosion, conserve plant and wildlife habitat and protect movement corridors.

9.10.2 Types of Riparian Buffers and Naturally Occurring Ponds and Lakes: Riparian buffers shall be clearly indicated on all development plans, site plans, preliminary plats and final plats.

Where maps show a difference in stream type for a particular reach of stream, the map that shows the greater level of stream protection shall apply.

- (1) Riparian Buffer Size: Riparian buffers shall apply on each side of the stream and shall begin at the most landward limit of the top of the bank perpendicular to the direction of stream flow. Riparian buffers shall be a minimum of fifty (50) feet in width for perennial streams and thirty (30) feet in width for intermittent streams.
- (2) Riparian Buffer Use Limitations: Land within the riparian buffer shall not serve to meet minimum lot size requirements, except on property zoned A-O, Agriculture/Open Space, or LDR, Low Density Residential, where at least fifty percent (50%) of the required lot area is outside the riparian buffer.
 - (a) Buildings and other features that require grading and construction shall be set back at least ten (10) feet from the edge of the riparian buffer.
 - (b) To avoid a loss of effectiveness in protecting streams, the riparian buffer shall remain in natural undisturbed vegetation except as provided by this section or allowed pursuant to a variance approved by the Planning Committee in accordance with Section 12.14, Variances. Riparian buffers within any Mixed Use Zoning District may be landscaped rather than left in an undisturbed state, at the discretion of the property-owner in accordance with an approved revegetation plan.
 - (c) Any use allowed by this section shall be designed and constructed to minimize the amount of intrusion into the riparian buffer and to minimize clearing, grading, erosion and water quality degradation.
 - (d) Crossings by streets, driveways, railroads, recreational features, intakes, docks, utilities, bridges or other facilities shall be allowed provided that they are designed to minimize the amount of intrusion into the riparian buffer. Such facilities may run generally within and parallel to the riparian buffer only where no alternative location is practical and when their design minimizes the amount of intrusion of the riparian buffer.
 - (e) Stormwater control structures and temporary erosion control structures shall be considered utilities for the purposes of this section and may be allowed in riparian buffers provided that:
 - (i)The property owner or applicant demonstrates to the satisfaction of the City Public Works Director or City Engineer, or their designees, as appropriate, that such facilities cannot be practicably located outside of the riparian buffer, and that any proposed stormwater control structure is sited and designed to minimize disturbance of the stream and riparian buffer. Siting stormwater control structures away from the stream channel shall be considered preferable to siting such structures in the stream channel;
 - (ii)Alternate methods of stormwater and erosion control shall be considered prior to approval of such structures in the riparian buffers; and

(iii) A vegetated buffer of a width determined by the City Public Works Director or the City Engineer, or their designees, as appropriate, may be required around the stormwater control structures.

(iv) Sanitary sewer lines, on an alignment generally parallel to the stream, may be allowed in riparian buffers, provided that:

(v) The property owner or applicant demonstrates to the satisfaction of the City Public Works Director or the City Engineer, or their designees, as appropriate, that the lines cannot be practicably located outside of the riparian buffer;

(vi) Design and construction specifications minimize damage to the stream and the possibility of line leakage; and,

(vii) The line is generally located at least thirty-five (35) feet from the top of the stream bank and the easement is no closer than twenty (20) feet from the top of the bank.

(viii) Riparian buffers may be used for passive recreational activities, such as trails, provided that service facilities for such activities, including but not limited to parking, picnicking and sanitary facilities, are located outside of the riparian buffer.

9.11 Tree Protection and Tree Coverage Preservation

9.11.1 Purpose and Intent: The purpose and intent of this Section is to:

- (1) Assist in providing adequate light and air;
- (2) Prevent erosion and siltation and aid in the absorption of air pollutants through conservation of trees and other vegetation;
- (3) Provide visual buffering and enhance the beautification of the City of Tupelo;
- (4) Safeguard and enhance property values and protect public and private investment;
- (5) Provide habitat for living things that might not otherwise be found in the urban environs; and,
- (6) Protect the quality of water resources from future degradation by maintaining vegetative cover and controlling disturbance of vegetation.

9.11.2 Applicability: The requirements of this Section shall apply to all uses for which minor or major site plan or major subdivision approval is required pursuant to Chapter 13 of this Ordinance.

9.11.3 Tree Protection: The intent of this section is to minimize the removal of protected trees in commercial and residential developments. It is the further intent of this section to ensure that developers take reasonable measures to design and locate proposed improvements so that the

number of protected trees that may be approved for removal is minimized. The design shall especially protect and preserve historic and specimen trees.

- (1) **Protected Trees:** The types of trees listed below are considered protected trees for the Development Code.

LIST OF PROTECTED TREES: Minimum Diameter: Eight (8) inches

Butternut Hickory	Shagbark Hickory	Tulip Poplar
Shellbark Hickory	Mockernut Hickory	White Ash
Green Ash	Sycamore	American Elm
Redbud	Black Gum	American Hornbeam
Red Oak	Post Oak	Hophornbeam
Willow Oak	Water Oak	Dogwood
Shumard Oak	White Oak	Southern Magnolia
Sugar Maple	Red Maple	Pecan

- (2) In all zoning districts where commercial or residential uses are allowed as by right, compatible or flexible uses, no person shall remove or otherwise damage any protected tree prior to submittal of development plans, or during the development process, without submittal of a tree survey and the execution of an agreement between the property owner and/or developer and the city, stating any tree replacement requirements that may apply to future development of the property.
- (3) **Historic and Specimen Trees:** An historic tree is one that is designated by the City of Tupelo as being of notable historical interest and value due to its association with the physical and cultural development of the City of Tupelo. Upon identification of an historic tree, the City shall hold a public hearing for designation purposes and due notice provided to the owner of the tree.
 - (a) A specimen tree is one that is designated by the City of Tupelo as being of high value due to its type, size, age and other relevant criteria. Upon identification of a specimen tree, the City shall hold a public hearing for designation purposes and due notice provided to the owner of the tree.
 - (b) No historic or specimen tree shall be removed without finding by the City of Tupelo that the tree is a hazard or that it is not economically or practically feasible to develop the parcel without removing the tree.

9.11.4 Tree Removal Procedure: The procedures and standards for review of planned tree removal shall be as follows:

- (1) Any person desiring to remove trees in connection with, or for the purpose of, the construction or development of a development requiring minor or major site plan or major subdivision approval, shall first submit a site plan to the Development Services Department. The preliminary plat required by Section 12.10 or the site plan required by Section 12.11 shall be sufficient to satisfy this requirement provided it contains a generalized tree survey based upon the most current available information.
- (2) The tree survey shall show the approximate location, extent and type of protected trees upon the site, including common or scientific names of the major groups of trees. The survey shall indicate which protected trees are intended for removal and/or grubbing and which will be left undisturbed. For nonresidential and multifamily development, the survey may be in the form of an aerial or a field survey, and shall be accompanied by photographs illustrating areas of trees.
- (3) If site development plans have been prepared, the survey shall be prepared to the same scale or in some other manner which clearly illustrates the relationships between areas of protected trees and proposed site improvements. If site development plans are available, the survey shall be prepared to a convenient scale which clearly reveals the extent of protected trees upon the site.
- (4) The site plan and accompanying documents shall be submitted in copies sufficient to administer this Section, and shall include the name, address, and telephone number of the land owner and his agent.
- (5) The filing of a site plan shall be deemed to extend permission to the City of Tupelo employees and/or Planning Committee members to inspect the subject site if necessary for purpose of evaluating the application.

9.11.5 Review Criteria: No site plan or preliminary subdivision plat shall be approved authorizing the removal of a protected tree unless the developer/owner demonstrates one (1) or more of the following conditions:

- (1) A permissible use of the site cannot reasonably be undertaken unless specific trees are removed or relocated;
- (2) The tree is located in such proximity to an existing or proposed structure that the safety, utility, or structural integrity of the structure is materially impaired;
- (3) The tree materially interferes with the location, servicing or functioning of existing utility lines or services;
- (4) The tree creates a substantial hazard to motor, bicycle, or pedestrian traffic by virtue of physical proximity to traffic or impairment of vision;
- (5) The tree is diseased, insect ridden, or weakened by age, abuse, storm or fire and is likely to cause injury or damage to people, buildings or other improvements;

- (6) The removal of the tree is necessary to promote the growth of surrounding protected trees. Under this provision, the applicant must demonstrate a preference for protecting historic and specimen trees. Trees removed pursuant to this subsection are exempt from tree replacement requirements; or
- (7) Any law or regulation requires the removal.

9.11.6 Review Procedures: The City of Tupelo Development Services Department shall review each completed site plan or preliminary plat according to procedures stated in Sections 12.10 and 12.11.

9.11.7 Replacement of Removed Trees

- (1) Protected trees removed shall be replaced at the expense of the developer/owner. Each removed tree shall be replaced with a new tree(s) having a total tree caliper equivalent to that of the removed tree. Replacement trees shall be of species appropriate for mitigation of the specific function (canopy, ornamental, et cetera) of removed trees.
- (2) Single-trunk replacement trees shall be a minimum of two (2) inches in diameter at a point six (6) inches above the base and a minimum of six (6) feet in overall height.
- (3) A replacement tree may be a tree moved from one (1) location to another on the site.
- (4) If the developer/owner demonstrates to the satisfaction of the Development Services Department that the site cannot accommodate the total number of required replacement trees as a result of insufficient planting area, the developer/ owner shall provide the remaining replacement trees, of species approved by the city arborist, at the appropriate planting season to the City of Tupelo Public Works Department for placement on city or other public property in the City of Tupelo.
- (5) Cash payment in lieu of replacement trees may be accepted with documentation of current cost of appropriate trees.
- (6) Any replacement tree, planted for credit, which dies within one (1) year of planting, shall be replaced by a tree of a minimum of two inches in diameter and a minimum of ten (10) feet in overall height at the time of planting.

9.11.8 Protection of Trees During Development Activities: Generally, to assure the health and survival of protected trees that are not to be removed, the developer shall avoid the following kinds of tree injuries during all development activities:

- (1) Mechanical injuries to roots, trunk, and branches;
- (2) Injuries by chemical poisoning;
- (3) Injuries by grade changes;

- (4) Injuries by excavations; and
- (5) Injuries by paving.

9.11.9 Tree Protection Zone: A circular tree protection zone shall be established around each protected tree or group of protected trees as follows:

- (1) If the drip line is less than six (6) feet from the trunk of the tree, the zone shall be that area within a radius of six (6) feet around the tree.
- (2) If the drip line is more than six (6) feet from the trunk of the tree, but less than twenty (20) feet, the zone shall be that area within a radius of the full drip line around the tree.

9.11.10 Development Prohibited Within the Tree Protection Zone: All development activities shall be prohibited within the tree protection zone provided for any protected trees, including any construction of buildings, structures, paving surfaces, and stormwater retention/detention ponds. All temporary construction activities shall also be prohibited within tree protection areas, including all digging, concrete washing, storage of construction material, and parking of construction vehicles.

9.11.11 Fencing of Tree Protection Zone: Prior to the commencement of construction, the developer shall enclose the entire tree protection zone within a fence or similar barriers as follows:

- (1) Steel "T" posts shall be implanted in the ground deep enough to be stable and with at least five (5) feet above ground;
- (2) The protective posts shall be placed not more than six (6) feet apart, and shall be linked together by a rope, chain, or highly visible woven fabric;
- (3) During construction, each tree protection zone shall be clearly identified with two (2) temporary signs that is at least four (4) feet in height and at least eighteen (18) inches by twenty-four (24) inches in size.

9.11.12 Permitted Activities Within Tree Protection Zone

- (1) **Utility Excavation:** Excavating or trenching by duly constituted utilities shall be permitted within the tree protection zone, except where the trees are historic or specimen, in which case utility lines shall be tunneled beneath tree roots in order to protect feeder roots.
- (2) **Sodding and Ground Cover:** Placement of the sod or other ground covers and the preparation of the ground surface for such covers shall be permitted within the tree protection zone.

9.11.13 Parking Reduction for Preservation of Protected Trees

- (1) A reduction of required parking spaces may be allowed or required by the Development Services Department when the reduction would result in the preservation of a significant tree with a trunk of twelve (12) inches in diameter or greater.
- (2) The reduction in required parking may be granted or required only if it will prevent removal of a significant tree that is located within the area of the site designated as a parking lot area.
- (3) The reduction in required parking spaces shall not exceed the number of parking spaces required to protect and maintain protected trees, or ten percent (10%) of the required number, whichever is less.

9.11.14 Tree Coverage Preservation

Development proposals requiring tree protection according to Section 9.11.2 above and which have twenty-five percent (25%) or more of the property covered by trees shall have the option to preserve or to mitigate the removal of some of the tree coverage area. Tree coverage preservation supersedes the tree protection procedures of Section 9.11 (3) and tree replacement requirements of Section 9.11. (7).

9.11.14.1 Required Preservation Standards: All tree coverage areas located within riparian buffers or project boundary buffers as required according to sections 9.9 and 9.10 shall be preserved.

Projects located in the Agriculture/Open Space or Low Density Residential zoning districts shall preserve or mitigate forty percent (40%) of tree coverage area outside riparian or boundary buffers.

- (1) Projects located in the Medium Density Residential or Mixed Use Residential zoning districts shall preserve or mitigate twenty-five percent (25%) of tree coverage area outside riparian or boundary buffers.
- (2) Projects located in all other zoning districts shall preserve or mitigate fifteen percent (15%) of tree coverage area outside riparian or boundary buffers.
- (3) For the purposes of calculating tree coverage requirements, the water surface area of ponds, streams, and other water bodies shall be excluded from the total land area of the development tract.
- (4) Insert drawings of existing tree coverage, tree coverage removal, tree coverage preservation

9.11.14.2 Mitigation Plan Requirement

- (1) In lieu of the tree survey required in the tree protection section above, a tree coverage mitigation plan may be submitted. The mitigation plan shall be prepared by a Mississippi registered forester, Mississippi registered arborist, or Mississippi registered landscape architect. The plan shall include:
 - (a) A report on the estimated number, size, species and location of trees on the site, based on an acceptable method of timber stand evaluation, as well as an estimate of the square footage or acreage of tree coverage;
 - (b) Identification of any specimen trees or trees which may be candidates for specimen tree designation;
 - (c) Identification of any tree coverage areas proposed for removal;
 - (d) An estimate of the total area required for preservation or mitigation based on the requirements above.

9.11.14.3 Mitigation Options

- (1) One hundred percent (100%) of the area of tree coverage that is preserved, including areas of mandatory preservation in buffers, shall count toward the total area required for preservation. This may include the canopy area of isolated or specimen trees.
- (2) Seventy-five percent (75%) of the area covered by the canopy of trees planted on site for landscaping purposes, estimated at ten (10) years from planting date, shall count toward the total area required for preservation.
- (3) Fifty percent (50%) of area reforested with seedlings, of a species mix similar to trees removed from site, shall count toward the total area required for preservation. Such reforestation areas shall be planted on public property as approved by the City Public Works Director, or on other areas within the City of Tupelo which are protected by permanent conservation easements.
- (4) Approved tree protection and replacement area shall be shown on all preliminary plats, final plats, site plans and development plans in order to clearly assign tree protection and replacement responsibility to future owners.
- (5) Allowable Uses of Preserved Tree Coverage Areas: Preserved tree coverage areas shall not be used for active recreational purposes, except for walking paths and foot trails constructed with minimal disturbance of tree roots and existing vegetation provided a Mississippi registered arborist, Mississippi registered forester, or Mississippi registered landscape architect has certified that the construction of the trail has been designed to minimize impact to the existing trees. No tree over ten (10) inches diameter at breast height shall be removed for the construction of trails.

- (6) All buildings shall be set back at least ten (10) feet from the edge of any preserved tree coverage area or shall be constructed in a way to minimize negative impacts to the area.
- (7) Utility lines and drainage channels shall be minimized within the root protection zones of trees to be saved. Preferably, such facilities should be located adjacent to driveways and in groupings as allowed by sound engineering practices and approved prior to installation.
- (8) Tree protection measures as stated above shall be applied to preserved tree coverage areas where needed.

9.12 Installation and Maintenance

9.12.1 Responsibility

Unless otherwise stated, the owner of any property where landscaping or buffering is required shall be responsible for the maintenance of all required plant material (including street trees located off-site), fences and walls. Maintenance responsibilities shall include the clearing and replacement of required material that is dead and/or dying.

9.12.2 Pruning

- (1) Trees and shrubs shall be kept trimmed back from doors, windows, and walkways.
- (2) Necessary pruning and trimming shall be in accordance with the American National Tree, Shrub and Other Woody Plant Maintenance Standards Practices (Pruning), and shall not be interpreted to include topping of trees through removal of crown material or the central leader, or any other similarly severe procedures that cause irreparable harm to the natural form of the tree, except where such procedures are necessary to maintain public overhead utilities. Any such activity shall be a violation of this Ordinance and additional plant material may be required by the Development Services Director or designee to replace or supplement the damaged plant material.

9.12.3 Extensions

- (1) It is recognized that land development occurs continuously and that vegetation used in landscaping or screening should be planted at certain times to ensure the best chance of survival. In order to ensure compliance and to reduce the potential expense of replacing landscaping or screening materials which were installed at an inappropriate time or under unfavorable conditions, a letter of request for extension of compliance with landscaping requirements may be filed with the Development Services Director, or designee, which states the reasons why the request is being made. This letter shall acknowledge that the applicant is aware of all landscaping and screening requirements, and will comply with those requirements within ninety (90) days, or discontinue use of the property.

- (2) The Development Services Director, or designee, shall grant the extension on requests for planting extensions for single-family development submitted between May 15 and September 15 of each year and may grant the extensions for other uses and at other times if there are unfavorable conditions for planting.
- (3) If the initial letter of request for extension of compliance with landscaping requirements has expired and conditions are still deemed unsuitable for planting, an applicant may request one additional extension of up to ninety (90) days. During periods of extreme drought, the Development Services Director, or designee, may authorize additional ninety (90) day extensions beyond the one (1) extension typically allowed. These extensions may be continued throughout the period in which the extreme drought conditions remain.
- (4) The applicant shall also acknowledge that while a Conditional Certificate of Compliance may be issued, no Final Certificate of Compliance shall be issued while there is an active (pending) letter of request for extension of compliance with landscaping requirements unless a performance guarantee (such as a letter of credit or performance bond) sufficient to cover one hundred-fifty percent (150%) of the installed landscaping costs has been posted with the Development Services Department.