

ARTICLE 12. LANDSCAPING AND SCREENING

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ORD. #64-11-08 (REVISED ARTICLE)

Section 1. Purpose

{The purpose of these regulations is to ensure environmentally sensitive site planning which further is intended to foster aesthetically pleasing developments by enhancing the biodiversity, reducing the atmospheric carbon, improving water quality, filtering the air and reducing toxic chemicals in the environment and increasing the compatibility of adjacent land uses so as to minimize the harmful impacts of noise, dust, headlight glare, artificial light intrusions, and other objectionable activities. These regulations are intended to promote the prudent use of water, energy resources, and sustainability through habitat preservation areas, wetlands, stream bank buffers, wooded areas, waterfront yards, and existing native vegetation and trees.

Broader Objectives include:

- (1) Prohibit clear-cutting of property
- (2) Protect and increase the value of residential and non-residential properties within the City
- (3) Maintain and enhance a positive image for the attraction of new residential and nonresidential land uses to the City.
- (4) Protect healthy quality trees and promote the natural, ecological, environmental, and aesthetic qualities of the City.
- (5) Emphasize the importance of trees and vegetation as both physical and visual barriers.
- (6) Maintain the moisture levels in the area of lands with natural tree cover.
- (7) Prevent soil erosion.
- (8) Minimize the cost of construction and maintenance of drainage systems necessitated by the increased flow and diversion of surface waters by facilitating natural drainage systems and amelioration of storm water drainage problems.
- (9) Provide shade.
- (10) Conserve Natural Resources.
- (11) Enhance the habitat and food source for birds and other wildlife, which in turn controls the insect populations and maintains the balance of natural ecosystems.} **ORD. #32-10-11**

Section 2. Application

- A. Any application or an improvement location permit and certificate of occupancy shall require a landscape plan as described herein. No improvement location permit shall be issued without City approval of such landscape plan. Prior to the issuance of the FINAL Certificate of Occupancy, A Certificate of Compliance shall be issued for the landscaping including residential planned development's overall and individual lots, and all non-residential uses and structures as per Article 12. All landscaping materials are to be guaranteed for a minimum of one year after the issuance of the Certificate of Compliance.

B. Article 12.0.2.A above, notwithstanding, construction of individual single and two-family dwelling units shall comply with the following.

- 1. Article 6, Site Design, and Improvement Standards
 - a. Part I. Preservation of Existing Natural Features and Amenities
 - b. Part K. Soil Preservation, Grading, and Seeding
 - c. Part M. Street Trees
 - d. Requires sod in lawn areas

2. Article 12, Landscaping and Screening, Section 4, Design Standards and Guidelines, below.

C. Failure to implement the landscape plan as approved, or failure to comply with requirements for single- and two-family lots shall be cause for revocation of the Certificate of Occupancy.

D. Landscaping plans shall include provisions for the following types of landscaping, as applicable:

- 1. Parking Lot Landscaping
 - a. Interior Parking Lot Landscaping
 - b. Perimeter Parking Lot Landscaping
- 2. Building Base Landscaping
- 3. Landscape Buffer Yard
- 4. Screening

E. All landscape plans shall contain the following information, unless specifically waived by the Director of Planning and Development.

1. The location and dimensions of all existing and proposed structures, property lines, easements, parking lots and drives, roadways and rights-of-way, sidewalks, curbs, bicycle paths, ground signs, trash receptacle enclosures and recycling areas, bicycle parking areas, fences, freestanding electrical equipment, recreational facilities, power lines (identify type of line such as transmission), transformers, irrigation systems, and other freestanding structural features as determined necessary by the Director of Planning and Development.

2. On the adjacent properties within 20-feet of the site, include the location of existing buildings, structures and plant materials , unless waived by the Director of Planning and Development. Include location, type, quantity, size, and name of plant materials.

3. The location, type, quantity, size and name (both botanical and common), of all existing plant materials. The notation of all trees with a diameter of six (6) inches or greater at a point four (4) feet above grade, as well as details of the estimated canopy size, health, and whether the tree is to be retained or removed.

4. The location, type, quantity, size and name (both botanical and common), of all proposed plant materials including but not limited to trees, shrubs, groundcover, annuals/perennials, and turf. The canopy spread shall be denoted on the plans for all trees.

5. Existing and proposed grading of the site indicating contours at two (2) foot intervals. Proposed berming shall be indicated using one (1) foot contour intervals.

6. Elevations of all fences and retaining walls proposed for location on the site.

7. Elevations, cross-sections, and other details as determined necessary by the Director of Planning and Development.

8. Summary data indicating the area of the site in the following conditions:

- a. Total area and percentage of the site in landscaped area.
- b. Total area and percentage of the site in domestic turf grasses.

- F.** Where the required landscape area exceeds one thousand (1,000) square feet in aggregate, the landscape plan must be prepared by a licensed landscape architect. {A landscape contractor may prepare the landscape plan for either a ground sign application or a designation sign application only.}
ORD. #31-9-10, ORD. #32-10-11
- G.** Landscaping shall not be located within drainage and/or utility easements.
- H.** {The Director of Planning or his/her designee may allow required plant materials to be moved to alternate locations both on- and off-site, but only if there are site features or constraints that prevent installation of such materials in the required locations or it is determined that there is no appreciable improvement to the site by installing the landscape materials in the required locations. This may include the substitution of a particular type of plant material to another type of plant material. (Example: one ornamental grass as a substitute for one deciduous shrub. It should not include a shrub for a tree.)} **ORD. #09-03-12**

Section 3. Definitions

Annuals – A plant that dies at the end of the growing season both above and below ground.

Berm (mound) – A man-made landscape feature used for screening in which earth is piled up in irregular, round, oblong shapes. Berms do not have consistent crest elevations but are irregular, creating a more natural landscape feature.

Bioretention Facilities (rain gardens) – A stormwater management system that uses soil and plants to absorb stormwater runoff and to capture pollutants. These are small landscaped basins intended to provide water quality management by filtering stormwater runoff before release into a storm drain system.

Bioswale - A bioswale is a shallow depression created in the earth to accept and convey stormwater runoff. A bioswale uses natural means, including vegetation and soil, to treat stormwater by filtering out contaminants being conveyed in the water.

{Branch – An outgrowing shoot, stem, or twig that grows from the main stem or trunk.} **ORD. # 32-10-11**

Buffering – Any means of protecting an area of land from the adverse visual and suitable effects of another area, which may include trees, shrubs, walls, fences, berms/mounds, space or related landscaping features required under the UDO for buffering lots, parcels, etc., from adjacent properties or public rights-of-way for the purpose of increasing visual shielding or other aspects of privacy or aesthetics.

Caliper – The American Association of Nurserymen Standard for trunk measurement of nursery stock. Caliper of the trunk shall be taken six inches above the ground for up to and including four-inch caliper sizes, and twelve inches above the ground for larger trees.

{Cane – A primary stem which starts at a point not higher than one-fourth (1/4) the height of the plant.}
ORD. #32-10-11

{Canopy Cover – The percent of a fixed area covered by the crown of an individual plant species or delimited by the vertical projection of its outermost perimeter. Small openings in the crown are included.}
ORD. #32-10-11

{Conifer – Cone-bearing tree.} **ORD. #32-10-11**

{Conservation – Protection, improvement, and wise use of natural resources according to principles that will assure utilization of the resource to obtain the highest economic and social benefits.} **ORD. #32-10-11**

{Critical Root Zone – The area of undisturbed natural soil around a tree defined by a horizontal circle drawn at grade with the center being the center of the trunk of the tree and a radius equal to the distance from the trunk to the outermost portion of the drip line.} **ORD. #32-10-11**

{Crown – The portion of the tree comprising the branches.} **ORD. #32-10-11**

{Crown Form (Shape)} – The configuration crown of a standing tree or shrub (circle, triangle, parabola, rectangle, or horizontal ellipse).} **ORD. #32-10-11**

{Crown Width (Diameter)} – The span of the crown of a tree or shrub.} **ORD. #32-10-11**

{Deciduous} – Plants that shed their leaves annually.} **ORD. #32-10-11**

Drip line – The vertical line encompassing the outermost portions of the tree canopy extending to the ground.

Evergreen - A plant having green leaves {or needles} throughout the entire year. **ORD. #32-10-11**

Fence – A structure including entrance and exit gates or openings designed and constructed for enclosure or screening.

Groundcover – A species of low-growing plant used for the purpose of growing over an area of ground.

{Growth Habit} – The mode or rate of growth, general shape, mature size, and branching structure of a plant including the changes that take place seasonally during its life cycle.} **ORD. #32-10-11**

{Invasive Plant Species} – An alien species that is not native to the ecosystem under consideration and whose introduction does or is likely to cause economic or environmental harm or harm to human, animal, or plant health.} **ORD. #32-10-11**

Landscaping – The improvements of an area with trees, shrubs, grasses and other vegetation and/or ornamental objects. Landscaping may include flowerbeds, berms, fountains, and other similar and man-made objects designed and arranged to create an aesthetically pleasing effect.

Landscape Area – Areas on or adjacent to a lot or right-of-way or the perimeter of a development that are identified for application of landscaping regulations. Landscape areas include street tree plantings, parking lots including islands and perimeter, foundation planting areas, building base landscaping areas, landscape buffer yard areas, and retention/detention pond areas.

Landscape Buffer Yard – An area adjacent to the front, side, and rear property lines of a development, measured perpendicularly from and parallel to adjacent property lines and/or right-of-way lines, intended to provide attractive spaces to reduce the impacts of proposed uses on adjacent properties and rights of way, or to maintain natural features, or as required by the UDO. Buffers help to maintain existing trees and natural vegetation, to block or reduce noise, glare, or other emissions and to maintain privacy. Landscape buffer yards are in addition to and separate from front, side, and rear yard setbacks and such landscape buffer yards are not contained within any lots. This area is common area to be maintained by the property owners, homeowners association, developer(s) and/or another entity approved by the Director of Planning and Development.

Landscape Island – A landscape area defined by a curb and surrounded on all sides by pavement.

Landscape Materials – Trees, shrubs, grasses, plants, decorative fences, walls, berms, irrigation systems, flowerbeds, groundcover, and edging. Artificial trees, shrubs, grasses, plants, flowers, and groundcover are not considered landscape materials.

Landscape Peninsula – A landscaped area defined by a curb and surrounded by paving on three sides.

Landscape Plan – A scaled drawing, prepared and signed by a licensed landscape architect or a landscape contractor, showing all plant materials including locations, sizes, species (botanical and common names) at the time of planting. The mature tree canopy size shall be included.

Landscape, Structure (Hardscape) – Decorative fences, walls, retaining walls, decorative rocks, pavers, fountains, or like materials.

Native Prairie Grasses – A mixture of perennial grasses that historically populated the prairie ecosystem of the United States that contain no trees. The prairie grasses may vary by region.

Natural Areas – Any critical area such as floodplains, wetlands, high tree concentrations, critical habitats that contain rare, threatened or endangered species, wooded slopes, wooded or partially wooded streams, woodlands, and riparian areas.

Perennial - A plant that has a life-cycle lasting more than two years and survives during the winter by an underground root system.

Plant Materials – Trees, shrubs, native grasses, groundcover, perennials, and the like.

Planting Season – The spring and fall time periods during which new plant materials that are installed are most likely to survive the planting process. Generally, these periods are from April 15 to June 15 (spring) and October 15 to November 15 (fall). This does not prohibit the installation of plant materials during other times of the year.

Permeable Pavers – Any kind of pavement constructed of material that allows water to penetrate and drain into underlying soils.

Rain Barrels– A container that collects rainwater, managing rooftop runoff for residential structures.

Rain Garden (See Bioretention Facility)

Registered Landscape Architect – An architect, specializing in landscaping, properly licensed and registered in the State of Indiana or through reciprocity permitted to practice in the State of Indiana.

Screening—A structure erected or vegetation planted which eventually is of sufficient height and density for concealing an area from view.

Shrub – A woody plant of relatively low height having several stems arising from the base and lacking a single trunk.

{**Spread** – A term used to indicate the horizontal width of a shrub or the crown of a tree.} **ORD. #32-10-11**

Street Trees—Trees growing on public rights-of-way except for alleys and for medians contained within subdivisions.

Tree - A perennial woody plant with one main trunk and a rather distinct and elevated head, ordinarily growing to definite heights and usually developing branches at some distance from the ground.

{Large Shade – any tree the height of which is thirty-five (35) feet or greater at maturity and having a limb spread of thirty (30) feet or more at maturity and has a spreading canopy that screens the sun.

Medium Shade – any tree of which has a mature height of twenty-five (25) to forty (40) feet and has a spreading canopy that screens the sun.

Small Shade – any tree of which has a mature height of less than twenty-five (25) feet and has a spreading canopy that screens the sun.

Ornamental – any tree grown for decorative purposes, typically small with multi-seasonal interest.} **ORD. #32-10-11**

{**Trunk** – The portion of a stem or stems of a tree before branching occurs.} **ORD. #32-10-11**

{**Vegetative Screen** – A visual barrier of vegetation with dense foliage used to block aesthetically intrusive land uses from view.} **ORD. #32-10-11**

{**Wildlife Habitat (significant)** – A place or environment where a plant, insect, or animal naturally or normally lives and grows including shelter, food, nesting sites, and protection.} **ORD. #32-10-11**

Woodland – Land covered with a dense growth of trees usually greater in extent than a grove and smaller than a forest.

Woody Plants – A plant that has a hard stem and has buds that survive above ground in the winter.

Xeriscaping – An approach to landscaping that minimizes outdoor water use while maintaining soil integrity through the use of native, drought-tolerant plants.} **ORD. #32-10-11**

Section 4. Design Standards and Guidelines

Landscape plans described above shall be prepared and reviewed based on the following design standards and guidelines. Design standards are objectively measurable design requirements that can be definitively evaluated for compliance. Design guidelines are not precisely measurable but compliance can be determined through the evaluation process of site plan review.

A. Design Guidelines

1. Plant Materials

Plant materials used in conformance with the provisions of this Section shall be of good quality, disease and pest free at planting, and of a species normally grown in Central Indiana, and capable of withstanding the extremes of individual site microclimates. Plant material shall be selected for interest in its structure, texture, color, and for its ultimate growth. A variety of compatible species should be included in the planting plan for a specific site or development. The use of drought-tolerant plant material is preferred. The use of salt-tolerant plant material is preferred for landscaping in or near the rights-of-way.

- a. The primary landscaping materials used in and around private parking areas shall be trees that provide shade at maturity. Shrubs, groundcover, and other planting materials may be used to compliment tree landscaping, as described above but shall not be the sole contribution to the landscaping.
- b. The primary landscaping materials used in the landscape buffer yards and adjacent to the buildings shall be shade trees, ornamental trees, shrubs, and groundcovers and other planting materials.

2. Softening of Walls and Fences

Plant materials should be placed intermittently against long expanses of building walls, fences, and other barriers to create a softening effect.

3. {Clearance

Trees shall be planted so that when they reach maturity there will be a minimum of ten (10) feet of clearance between the tree trunks and structures, buildings, overhangs, walls, fences, and/or other trees.} **ORD. #32-10-11**

4. Scale and Nature of Landscaping Material

The scale and nature of landscaping materials shall be appropriate to the size of the structures. Large scaled buildings, for example, should generally be complemented by larger scaled plants. {Form, texture, color, pattern of growth, and adaptability to local conditions shall be considered when selecting plant materials.} **ORD. #32-10-11**

5. Evergreens

Evergreens should be incorporated into the landscape treatment of a site, particularly in those areas where screening and buffering are required.

6. Planting Beds

Planting beds should be mulched but mulch shall not be used as a substitute for plant materials.

7. Preservation of Existing Plant Materials

Existing plant material should be incorporated into the landscaping treatment of a site. The preservation of natural features and landscaping is a criterion for subdivision and planned development review. (See Natural Area Protection section for additional requirements).

8. Protection of Plant Materials

- a.** The interior dimensions, specifications, and design of any planting area or planting median proposed to be constructed shall be sufficient to protect the landscaping materials planted therein and to provide for proper growth.
- b.** Clearance of trees and vegetation during the land development process shall be limited to that necessary for and directly related to the construction of improvements specifically authorized by the improvement location permit.
- c.** In locations where plants will be susceptible to injury by pedestrian or motor traffic, they shall be protected by appropriate curbs, tree guards or other devices.
- d.** Landscaping installed adjacent to parking areas shall require that all plant materials are set back from the edge of the pavement/concrete a sufficient distance so that parked vehicles do not over-hang the landscape area and destroy or damage the plant materials.

9. Designing for Safety

Landscaping shall not be approved which would inhibit or make more difficult the use of emergency vehicles and all approved landscaping plans will give consideration to safety precautions which will protect both vehicular and the pedestrian public. Landscaping modifications will also be considered for public buildings, including schools, to allow for greater visibility and allow for natural surveillance around the building structure. {Plantings in landscaping areas shall not obstruct line-of-sight or vision corner clearance areas. To maintain site lines, trees shall be planted a minimum of twenty (20) feet from the curb of intersecting streets, five (5) feet from a driveway, and ten (10) feet from a street light or street regulatory or warning signs.} Adequate provision for snow storage shall be considered by the Director of Planning and Development {or his/her designee.} **ORD. #32-10-11**

10. Detention/Retention Basins and Ponds

Detention/Retention basins and ponds shall be landscaped. Such landscaping should include shade and ornamental trees, evergreens, shrubs, hedges, turf, groundcover, and other plant materials.

11. Domestic Turf Grasses

Domestic turf grasses should be used in areas with little or no slope to prevent the runoff or irrigation water.

12. Energy Conservation

Plant material placement will be designed to reduce the energy consumption needs of the development.

- a.** Deciduous trees should be placed on the south and west sides of buildings to provide shade from the summer sun.
- b.** Evergreen and other plant materials should be concentrated on the north side of buildings to dissipate the effect of winter winds.

13. Height of Landscaping

- a.** Where proposed landscaping or screening is to abut a public road or parking area, the measured height of materials used shall be based on the grade of the abutting road or parking area and the top of the material used.
- b.** Where a proposed landscape or screening area is to abut an adjoining neighbor's property line, the measured height of materials used shall be based on the grade of the abutting property line and the top the material used.

14. {Noise Reduction

Properties adjacent to highly traveled roads, and/or commercial or industrial uses shall arrange landscaping to reduce the intensity of noise by reflecting, deflecting, or absorbing sound. Earth berms, walls, fences, and/or plantings providing physical separation are examples of techniques to reduce or absorb noise.] **ORD. #32-10-11**

B. Design Standards

1. Selection

Permitted plant materials are outlined in Table 12.0.4.B and the following: All plants shall conform to the American Standard for Nursery Stock (ANSI Z60.1) size and width specifications.

a. Trees

i. Canopy Trees

Unless otherwise noted, all canopy trees proposed to be used in accordance with this classification shall be a minimum of twelve (12) feet in height and have a minimum trunk caliper of two and one-half (2.5) inches at the time of planting twelve (12) inches above the grade. The trees should be of a variety, which will attain an average mature spread greater than thirty-five (35) feet. Canopy trees that are multi-stemmed must be a minimum of twelve (12) feet in height, and have a minimum of three (3) stems at the time of planting.

ii. Understory Trees

All understory trees proposed to be used in accordance with this classification shall be a minimum of eight (8) feet in height and have a minimum trunk caliper of one and one-half (1.5) inches at the time of planting. They should be of a variety that will attain an average mature height of greater than fifteen (15) feet. Understory trees that are multi-stemmed must be a minimum of eight (8) feet in height and have a minimum of three (3) stems at the time of planting.

iii. Evergreen Trees

All evergreen trees proposed to be used in accordance with this classification shall be a minimum of six (6) feet in height at the time of planting. They should be of a variety that will attain an average mature height of greater than fifteen (15) feet.

iv. Evergreen Understory Trees

All evergreen understory trees proposed to be used in accordance with this classification shall be a minimum of six (6) feet in height at the time of planting. They should be of a variety that will attain an average mature height of equal to or less than fifteen (15) feet

b. Shrubs and Grasses

i. Evergreen Shrubs

Unless otherwise noted, all shrubs to be used in accordance with this classification shall have a minimum height of eighteen (18) inches at the time of planting and a maximum height of four (4) feet at maturity. Shrubs used to form hedges shall be of a non-deciduous species and shall be spaced not more than thirty-six (36) inches apart so as to form a continuous visual screen and a minimum of thirty-six (36) inches in height above grade.

ii. Deciduous Shrubs

Unless otherwise noted, all shrubs to be used in accordance with this classification shall have a minimum height of eighteen (18) inches at the time of planting and a maximum height of four (4) feet at maturity.

iii. Ornamental Grasses

All ornamental grasses used in accordance with this classification shall be a minimum height of twenty-four (24) inches at the time of planting and a maximum height of four (4) feet at maturity. Ornamental grasses may be used to supplement shrub plantings within perimeter parking landscape areas and interior parking islands but shall not constitute more than twenty (20) percent of the plantings in these areas. Normal maintenance of ornamental grasses constitutes trimming back the grasses to no more than four (4) inches in height in the spring of each year.

c. Native Prairie Grasses and/or Wildflowers

Due to circumstances where maintaining large areas of turf grasses is impractical or difficult, establishing an area of native prairie grasses or wildflowers, may be permitted at the discretion of the Director of Planning and Development, under the following conditions:

- i.* Must be set back from the property lines by a minimum of five (5) feet. The setback is not required where the defined landscape area abuts another similar private or public landscape area.
- ii.* Must be a minimum of fifteen (15) feet from any building foundation.
- iii.* Must be maintained at least once per year through mowing or, burning if appropriate, and permits are obtained through the Indiana Department of Environmental Management (IDEM) and the Noblesville Fire Department.

Table 12.0.4.B. Additional Permitted Landscape Materials

Trees	Permitted – See Section 12.0.4.B.1.a.
Shrubs and Grasses	Permitted – See Section 12.0.4.B.1.b.
Evergreen Groundcover	Permitted if less than 30 inches in height at maturity
Flowers	Permitted but cannot exceed fifty (50) percent of planting area and shall not exceed thirty-six (36) inches in height at maturity.
Turf	Permitted
Bark and Mulch	Permitted but cannot exceed seventy-five (75) percent of the planting area and in combination with vegetation.
Rocks, Stone, and Gravel	{These materials may be used as building base landscaping material only.} Landscaping rock and stone are permitted provided in meets a ¾ inch or 1 ½ inch in size. It shall meet INDOT course aggregate sizes 5 – 8. ORD. #31-9-10
Other Impervious Materials (brick pavers, concrete pavers, decorative concrete)	Permitted in planting areas under twenty-four (24) inches wide in lieu of plants. Asphalt is prohibited.

d. Prohibited Landscape Materials

Prohibited landscape materials include rocks, gravel, stone, asphalt, {used in internal and perimeter parking lots areas and landscape buffer yards;} thorn-bearing plant species and the Juniper plant species. Flowering species such as roses may be authorized by the Director of Planning and Development. **ORD. 31-9-10**

2. Clustering of Trees

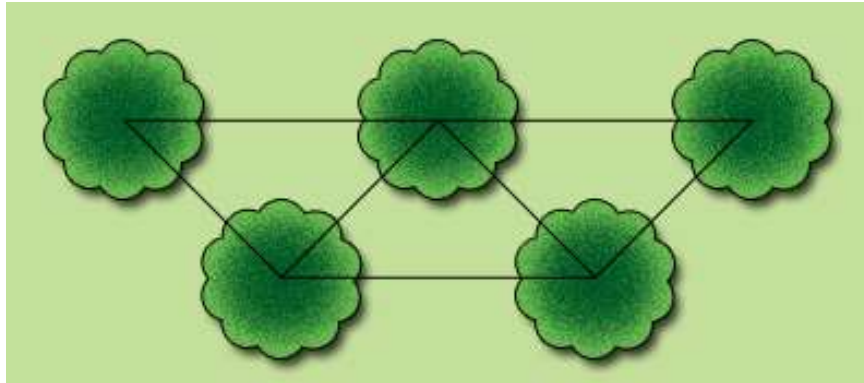
Where trees are required based on a linear footage calculation, it may be possible for these trees to be planted in clusters as opposed to being evenly spaced in a line. In the case where clustering is used, no tree shall be located any closer than ten (10) feet, or any further than fifty (50) feet from the next closest required tree. Any such clustering plan must be approved by the Director of Planning and Development prior to installation of the landscaping.

3. Staggering Requirement for Trees and Shrubs

When required for perimeter parking landscaping and buffering, trees and shrubs may be required to be planted in staggered rows to provide the effective diagonal planting of the plants.

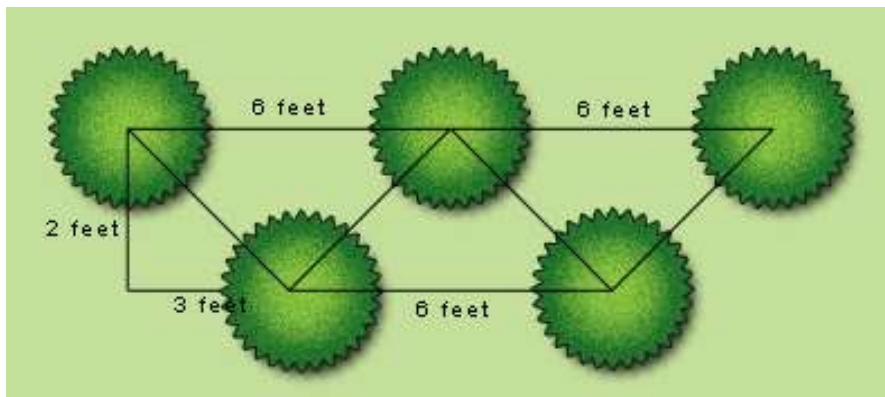
A. Tree Staggering

These rows should be planted in a manner to provide for equal spacing both in width and depth between each plant.



B. Shrub Staggering

Shrubs should be planted in an alternating pattern formed by two rows, two (2) feet apart on center, each of which is made up of shrubs six (6) feet on center.



4. Undulating Planting Beds

Where applicable, it is desirable to create undulating planting beds to provide more landscape interest, as opposed to trees and shrubs being evenly spaced in a straight line.

5. Mixing Plant Species

When more than twenty (20) shrubs and ten (10) trees are required on a site to meet these regulations, a mix of species shall be provided. The following table indicates the maximum quantity of trees and shrubs of the same species and genus that may be planted. In addition, shrubs should generally be divided equally between deciduous and evergreen varieties.

Table 12.0.B.4.6

Mixing Plant Species			
Total Trees Planted on Site	Total Shrubs Planted on Site	Minimum Number of Species Required	Maximum Percentage of any Single Species
10 to 30	20 to 200	2	70%
30 to 100	200 to 400	3	50%
> 100	> 400	4	30%

6. Berms

Berms shall maintain a maximum height of six (6) feet and a minimum height of three (3) feet. The berm shall be required to maintain a 3 to 1 slope. The top of such berms shall be located as closely as possible to the property line of the use. The landscaping required in this case shall be equal in number to the landscaping number otherwise required for buffering of the use. In terms of height, the landscaping plus the berm shall be required to meet the height standard that would otherwise be required for the buffering of the use.

7. Fences or Walls

Decorative fences or walls shall be permitted, in addition to required landscaping, between a non-residential development and adjacent residential structures or along the frontage of residential subdivisions. This standard does not apply to individual single-family or two-family residences. Fences or walls shall comply with the following:

- a. Fences and walls shall be solid, opaque, and constructed of wood or masonry.
- b. No fence shall be located inside of any required front yard setback {unless granted a variance from the Board of Zoning Appeals or a waiver from the Plan Commission and/or Council.} **ORD. #32-10-11**
- c. In order to break the visual monotony of a masonry or wood fence or wall, at least one (1) shrub or vine shall be planted abutting the wall for every ten (10) feet of wall length, but not necessarily evenly spaced ten (10) feet apart.
- d. The required shrubs/vines shall be installed outside of the fence/wall, and the fence/wall shall be erected a minimum of four (4) feet inside the property line to allow for the planting and maintenance of the shrubs/vines.
- e. In lieu of the vine or shrubbery requirements above, the Director of Planning and Development shall be authorized to approve a masonry wall having significant design variation evenly spaced at internals of not more than twenty (20) feet.

8. Duplicate Planting Requirements

It is not the intent of this Ordinance to generate multiple rows of trees and shrubs resulting from implementation of this Ordinance together with Street Tree requirements and/or other landscaping treatments. In these instances, the most restrictive standard shall be used. In some instances, where the building or parking lot setback from the right-of-way is greater than twenty (20) feet, street trees may still be required in addition to other landscaping requirements, per the discretion of the Director of Planning and Development.

9. Application Variations

a. Special Landscape District (Appendix G)

Due to the more compact layout of the Special Landscape District, normal landscaping requirements may be impractical, therefore modified parking lot and landscaping buffer requirements are outlined in the associated tables in Section 5 and Section 7 of this Ordinance.

b. Corporate Campus Planned District (CCPD)

See Article 8 for landscaping requirements.

c. All Other Areas

Landscaping standards as set forth within this Ordinance, apply to all areas within the Noblesville Planning Jurisdiction outside of the *Special Landscape District* and the *Corporate Campus Planned District* as described above.

10. Installation Prior to Certificate of Occupancy

All landscaping required by the approved landscaping plan shall be installed prior to issuance of the Final Certificate of Occupancy unless approved by the Director of Planning and Development for weather related reasons or unique circumstances. Where landscaping cannot be installed, a Surety Bond must be posted with the City covering one hundred ten (110) percent of the estimated installation costs including the plant materials.

Section 5. Parking Lot Landscaping

A. Intent

Parking lot landscaping required by this Section is intended to promote attractive, safe, off-street parking lots by providing minimum requirements for installation and maintenance of landscaped areas. This section places a high priority on the safe flow of pedestrians and vehicles within a parking lot. It also requires adequate safe emergency lanes for fire trucks and other emergency vehicles.

B. Application

1. Required parking lot landscaping shall consist of two types: (1) Interior Parking Lot Landscaping and (2) Perimeter Parking Lot Landscaping as described below. The standards required for these two types of landscaping shall be determined by the “class” of parking lot proposed on the site. The parking lot “class” shall be determined by the total number of proposed parking spaces for a given use.

- a. Class A 0 to 20 spaces
- b. Class B 21 to 50 spaces
- c. Class C 51 to 200 spaces
- d. Class D >200 spaces

2. Where parking lots and/or parking lot landscaping were legally existing as of the effective date of this Ordinance, but do not conform to the provisions of this Ordinance, such parking lots shall be considered legally non-conforming. Upon any expansion to such non-conforming parking

lots and/or parking lot landscaping, or the expansion or alternation of a structure associated with that parking lot and/or parking lot landscaping, the entire parking lot existing and expanded shall be subject to the requirements of this Article.

C. Interior Parking Lot Landscaping

1. Planting Islands

In some cases where parking is required for a use, a certain percentage of the paved area must be maintained as landscape areas which include landscape islands and peninsulas. For the purposes of calculating this requirement, the following table shall be employed.

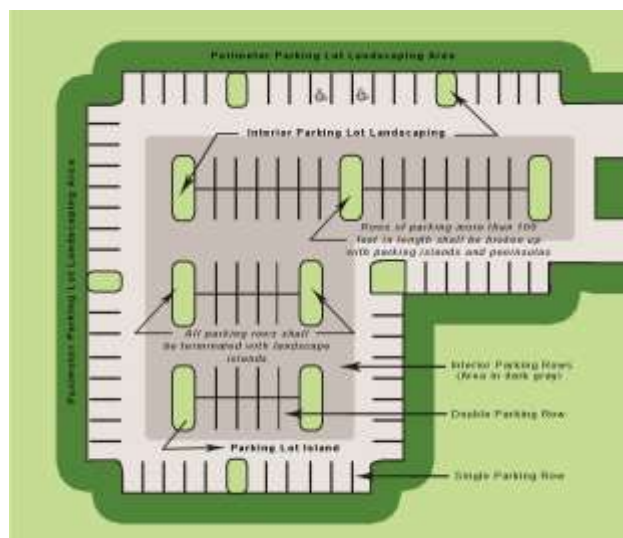
Table 12.0.5.C.1.

INTERIOR PARKING LOT LANDSCAPE REQUIREMENTS		
	Percent of Required Landscaping in Parking Lot	Maximum Parking Lot Island Size (Square Feet)
Class A	1%	180
Class B	5%	750
Class C	8%	1,000
Class D	11%	No Maximum

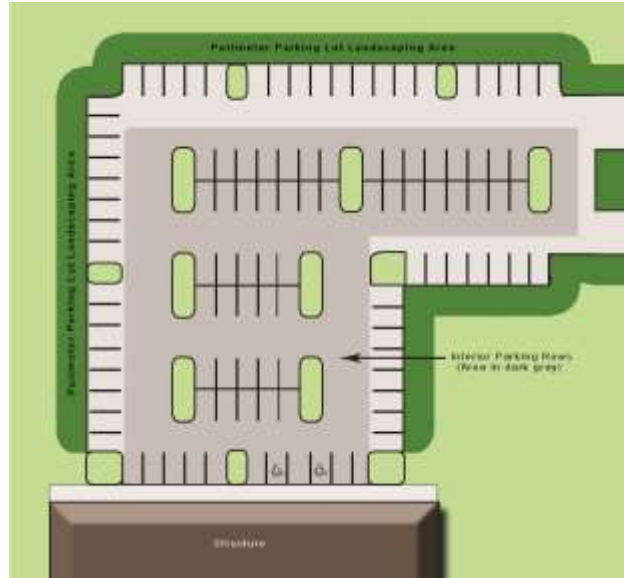
a. All single row parking landscape islands and peninsulas shall be a minimum of one hundred eighty (180) square feet in area with a minimum width of nine (9) feet measured from back of curb to back of curb. Each island and peninsula shall contain a minimum of one (1) canopy tree and five (5) evergreen or deciduous shrubs, or ornamental grasses.

b. All double row parking landscape islands shall be a minimum of two hundred forty (240) square feet in area with a minimum width of nine (9) feet measured from back of curb to back of curb. Each island and peninsula shall contain a minimum of two (2) canopy trees and ten (10) evergreen or deciduous shrubs, or ornamental grasses.

c. All interior parking rows shall be terminated at both ends with landscape islands. The exterior parking rows abutting the Perimeter Parking Lot Landscaping Area, which are not adjacent to a structure, shall require the installation of one additional canopy tree at both ends of the exterior row. All parking islands shall be dispersed so as to define aisles and limit unbroken rows of parking to a maximum of one hundred feet in length. For calculating purposes, handicapped parking spaces shall count as one (1) parking space. (See Illustrations)



Parking layout without a structure.



Parking layout with a structure

- d. One hundred (100) percent of every parking lot island or peninsula outside of shrub masses shall be planted in turf or other approved groundcover in the appropriate density to achieve complete cover within two (2) years as determined by the approved landscape plan.
- e. If the specific application of the interior landscape requirements will seriously limit functions of the building site, the Director of Planning and Development shall have the authority to permit consolidation and relocation of these landscaped areas on the building site.
- f. The primary plant materials used in parking lots shall be canopy tree species, in conformance with applicable provisions of Sections 4.A. and 4.B. above. Understory trees, shrubbery, hedges, and other plant materials may be used to supplement the canopy tree plantings, but shall not be the sole contribution to such landscaping.

D. Perimeter Parking Lot Landscaping

1. Intent and Application

The landscape requirements identified below provide for the enhancement of all parking lots by recognizing two distinct conditions. The first condition is where parking lots are located within front and corner side yards, where a uniform scheme of landscaping is required to protect the aesthetics along public streets. The second conditions is where parking lots are located within rear and interior side yards and minimum requirements for beautification of both residential and non-residential uses are desired. The intent is to require a higher level of landscaping abutting or adjacent to residential uses (principally multi-family uses) than for non-residential uses. It should be noted that the issue of reducing impacts between dissimilar uses is addressed in Section 7. Landscape Buffer Yards.

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2. Area and Configuration

Table 12.0.5.D.2.

PERIMETER PARKING LOT LANDSCAPING REQUIREMENTS				
Parking lots adjacent to, abutting, or by yard type	Special Landscape District	All Other Areas	Required Trees (per 100 linear feet)	Required Shrubs (per 100 linear feet) (Minimum height 24-inches at time of planting)
Public street, private street, front yards, or abutting residential uses/zone district	10 feet (Perimeter landscape width)	20 feet (Perimeter landscape width)	2 staggered canopy	33 staggered deciduous or evergreen shrubs
Rear and interior side yards abutting or across from a residential use/zone district	10 feet (Perimeter landscape width)	10 feet (Perimeter landscape width)	3 staggered canopy trees and 2 understory	33 staggered deciduous or evergreen shrubs
Rear and interior side yards abutting a non-residential use/zone district	5 feet (Perimeter landscape width)	10 feet (Perimeter landscape width)	2 staggered canopy	33 staggered deciduous or evergreen shrubs

1. For calculation purposes, plant quantities are rounded up to the nearest whole number when the calculation is .5 or greater.
2. Refer to tree and shrub staggering diagrams.
3. Setbacks are the minimum required unless specified elsewhere in the ordinance.

a. These requirements may be altered by the Director of Planning and Development, Plan Commission, or the Board of Zoning Appeals to protect vehicular or pedestrian traffic or to facilitate free movement of emergency vehicles.

b. {All trees shall be planted within ten (10) feet of the parking lot edge.

c. All shrubs shall be planted within five (5) feet of the parking lot edge.} **ORD. #32-10-11**

3. Shared Parking Facilities

All paved areas that encroach upon the required ten (10) foot perimeter parking lot landscape areas, except those abutting a public right-of-way shall conform to the following.

a. The total area that is removed must be provided as interior parking lot landscaping on those parcels. This area shall not be counted towards the overall required interior parking lot landscaping as stated above.

b. Plantings in these areas shall comply with the standards stated in Section 5 of this Article.

E. Parking Garages

All parking garages shall be required to meet the following landscape and urban design requirements:

1. Perimeter Landscaping

Parking structures shall provide along any street frontage pedestrian-related amenities such as sitting areas, planters, and visually interesting wall surfaces at the street level. There such shall be such amenities provided so that twenty percent (20%) of the building façade will contain such spaces. Such amenities shall be evaluated through Site Plan Review. In all cases, there shall be a minimum sidewalk width along the street of eight (8) feet that shall not be impeded by such pedestrian-related amenities.

2. Interior Landscaping

Interior landscaping requirements for parking garages may be met by providing hanging baskets, landscape planters, and/or flower boxes around the exterior of the first three levels of the parking garage structure.

Section 6. Building Base Landscaping

The entire base of each commercial/industrial/institutional and multi-family building shall be surrounded by a landscape strip as prescribed in the table below. Such landscaping shall not be counted toward the overall required plantings for the interior parking lot. These landscape strips may be broken by pedestrian access ways; however, these access ways may not constitute more than ten (10) percent of the total area of the required landscape strip. No more than forty (40) percent of the required building base landscape area shall be located on any one side of the building. {Shrubs and ornamental trees along foundation walls of structures shall be planted no closer than two (2) feet and eight (8) feet respectively.} (ORD. #32-10-11) In certain circumstances, additional standards shall be required as follows:

Table 12.0.6.

BUILDING BASE LANDSCAPING REQUIREMENTS				
	Special Landscape District¹	All Other Areas	Required Trees (per 100 linear feet)	Required Shrubs (per 100 linear feet)
Buildings adjacent to or across from parking area, public road or residential use/zone district	10 feet (landscape width)	10 feet (landscape width)	3 understory trees	33 deciduous or evergreen shrubs, or ornamental grasses
Building adjacent to or across from a similar use, commercial or industrial uses, or private road	5 feet (landscape width)	10 feet (landscape width)	2 understory trees	15 deciduous or evergreen shrubs, or ornamental grasses

1. Where zero front yard setbacks are permitted and utilized, building base landscaping requirements are waived. If the front yard setback utilized is less than the building base landscaping requirement, the building base landscaping requirement may be reduced by the difference of the two.

2. For calculation purposes, plant quantities are rounded up to the nearest whole number when the calculation is .5 or greater.

A. Loading Areas

Where a drive-thru or loading area is permitted or required for a use, and where it is necessary to locate this drive-thru or loading area inside of the building base landscaping, the affected landscape areas may be moved. In these cases, an area of landscaping equal to the amount removed must be added to other areas of the building’s base landscaping.

Section 7. Landscape Buffer Yards

A. Applicability

The regulations of this Section shall establish the dimensions and improvement requirements of landscape buffer yards as required for transitions between uses and along the City's corridors.

B. Changes in Landscape Buffer Yards for Planned Developments

Landscape buffer yards may be established, increased, or decreased by the Noblesville Plan Commission and Noblesville Common Council as part of the zoning approval of any planned development.

C. General Restrictions

Landscape buffers around an entire land use shall be reserved for the planting of material and installation of other buffering materials as required within this Section. No parking, sidewalks, storm water detention facilities, regulated drains, fences, walls, accessory buildings, structures, easements or other impervious surfaces shall be permitted to be located inside any required landscape buffer yard. Allowable encroachments include landscaping and earthen berms. Consideration may be given to driveways and sidewalks needed to service a use or building and can be administratively approved by the Director of Planning and Development, or decorative walls/fences approved by the Plan Commission and Council for a planned development. All landscape buffer yards shall include a variety of landscape plants per development. Buffering requirements, when applicable, shall be used to supplement all other required landscaping and shall not be used in lieu of other required landscaping, unless otherwise stated in this Article.

D. Maintenance of Landscape Buffer Yards

Landscape buffer yards are designated as Common Area/Landscape Buffer Yard and shall be maintained by the Homeowner's Association and/or Developer as per the Declaration of covenants for the subdivision and/or planned development. Other acceptable recordable documentation for the maintenance of the landscape buffer yards may be approved by the Director of Planning and Development on a case-by-case basis.

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E. Size and Improvement of Landscape Buffer Yards

The size and improvement of the landscape buffer yards for various situations shall be as per the table below.

Table 12.0.7.E.

LANDSCAPE BUFFER YARD REQUIREMENTS				
Proposed Use or Zoning District	Landscape Buffer Yard Width	Required Trees (per 100 linear feet)	Required Shrubs (per 100 linear feet) <i>(Minimum 24-inches at the time of planting)</i>	Other Requirements
Downtown as per adopted map per Appendix G	Exempt	Exempt	Exempt	Exempt
GB, PB, LB, VC Adjacent to or abutting a residential use/zone	30 feet	2 staggered evergreen canopy trees and 1 deciduous canopy tree	33 staggered deciduous or evergreen shrubs	Fences or walls may be used in combination with landscaping. A berm may be used to supplement the required landscaping.
I1, I2, I3 Adjacent to or abutting a residential use/zone	40 feet	2 staggered evergreen canopy trees and 1 deciduous canopy tree	33 staggered deciduous or evergreen shrubs	Fences or walls may be used in combination with landscaping. A berm may be used to supplement the required landscaping.
Park, Recreation, Institutional Uses Adjacent to or abutting a residential use/zone	25 feet	2 staggered canopy trees	16 staggered deciduous or evergreen shrubs	Fences or walls may be used in combination with the required landscaping. {A berm may be used to supplement the required landscaping.}
R5, RMH, ZLL, Land Use Variance Adjacent to or abutting a residential use/zone	15 feet	2 staggered evergreen understory trees and 1 deciduous understory tree	16 staggered deciduous or evergreen shrubs	Fences or walls may be used in combination with the required landscaping {A berm may be used to supplement the required landscaping.}.
Adjacent to or abutting an Arterial or Expressway	40 feet	3 staggered canopy trees of a minimum 3.5-inches caliper	33 staggered deciduous or evergreen shrubs	Fences or walls may be used in combination with landscaping. A berm may be used to supplement the required landscaping.
CCPD	See Article 8, Part E	See Article 8, Part E	See Article 8, Part E	See Article 8, Part E
Planned Developments	50 feet	See Article 8, Part H	See Article 8, Part H	See Article 8, Part H

1. Areas not planted with trees or shrubs shall be maintained as turf or other groundcover approved by the Director of Planning and Development.
2. Ornamental Grass may be substituted for shrubs up to a maximum of twenty (20) percent.
3. For calculation purposes, plant quantities are round up to the nearest whole number when the calculation is .5 or greater.
4. Refer to tree and shrub staggering diagrams.

ORD. #32-10-11

Section 8. Screening

A. Standards

Standards for screening shall be established below. When the following standards differ from standards otherwise outline by this Ordinance, the most restrictive standard shall apply.

B. Applicability

This section shall apply to the following:

1. Trash Receptacle Enclosures

All trash receptacles shall be completely screened by a wall on three sides matching the materials, colors, and architecture of the primary structure located on the parcel. The fourth side shall consist of a metal gate or other similar materials completely hiding the trash receptacle. The enclosure must measure a minimum of six (6) feet in height or two (2) feet above the height of the trash receptacle, whichever is greater. Trash receptacle enclosures shall not be located in front of any building, adjacent to a collector, arterial, or expressway, or adjacent to any residential use.

- a. Landscaping is required on three side of the enclosure and shall include evergreen understory trees at three (3) feet on center or evergreen canopy trees five (5) feet on center, and a minimum height of six (6) feet.

2. Service/Material Yard and Storage Areas

All service yards shall be completely screened by a fence, split faced block wall, continuous evergreen screen, or combination of the three. The screen must measure a minimum of seven (7) feet in height. All non-vegetative screen methods shall as closely as possible match the architecture of the building which the service yard is serving.

- a. Landscaping shall include evergreen understory trees at three (3) feet on center or evergreen canopy trees five (5) feet on center, and a minimum height of seven (7) feet.

3. Display Areas

All display areas which front on a public or private street shall be required to plant three (3) deciduous trees per 100 linear feet of frontage of display area onto the public or private street or any fraction thereof.

4. Heating and Cooling Units

Ground mounted heating and cooling units for non-residential and multi-family structures shall be completely screened.

Section 9. Street Trees

Street trees shall be installed within any new subdivision pursuant to Article 6, Part M.

Section 10. Inspection

The Director of Planning, or a duly appointed representative, shall have the authority to visit any lot to inspect the landscaping and check it against the approved plan on file. Upon completion of the required landscaping, as per the approved plan, it shall require an inspection to determine that the landscaping complies with the approved plan and shall be completed prior to the issuance of a FINAL Certificate of Occupancy for the structure. A Certificate of Compliance shall be issued for those landscaping areas that comply with the approved landscaping design plans. For those landscaping areas, which are not one or two family structures, the posting of a three-year maintenance bond is required for 110% of the cost of installation and plant materials. The cost of installation shall be certified by landscape contractor or licensed landscape architect.

Section 11. Change to an Approved Landscape Plan

Any change or deviation to an approved landscape plan shall require the approval of the Director of Planning and Development. Changes which do not conform to this Article 12 shall be subject to the procedures for a variance as established in Article 4 or Article 8 for planned developments, a part of this Ordinance. Landscape improvements made to a lot that are not in conformance with an approved landscape plan shall be a violation of this Ordinance, and subject to the fines and penalties established in Article 14 and Appendix A of the Unified Development Ordinance.

{Section 12. Installation and Maintenance

A. Plant Installation

All Landscaping materials shall be installed in accordance with the current planting procedures established by the Purdue Cooperative Extension Service “Planting and Transplanting Landscape Trees and Shrubs” and the “Noblesville Arboriculture Specifications Manual.”

B. Maintenance

The owner/developer of the premises shall be responsible for the maintenance, repair, and replacement of all landscaping materials and structures in accordance with these standard and as indicated on the landscaping plan certified by the Director of Planning and Development. All landscaping materials shall be maintained in good condition so as to present a healthy, neat, and orderly appearance, and plant materials not in this condition shall be replaced when necessary and shall be kept free of weeds, refuse, and debris.

If any planting material dies or is removed, it shall be the responsibility of the property owner/developer to replace the materials immediately. The replacement landscaping must match the existing landscaping being replaced in height, size, number, and bulk. In cases where a practical difficulty exists in the adherence to this standard, the Director of Planning and Development may authorize replacement landscaping different than that required above. Such alternative landscaping must meet the intent and objectives outlined in this Article and such authorization must be received prior to the removal of the original landscaping.

Fences, walls, and other barriers shall be maintained in good repair. Irrigation systems shall be maintained in good operating condition to promote the health of the plant materials and the conservation of water. The enforcement of the above shall be stated in covenants adopted as part of this approval process when applicable.} **ORD. #10-03-13**

Section 13. Natural Area Protection

The purpose and intent of this section establishes regulations for the preservation of natural areas to prevent the unnecessary cutting, removal, or killing of trees, and/or native vegetation; to provide protection for these critical areas including woodlands or high tree concentrations; critical habitats that contain rare, threatened or endangered species; wooded 100-year floodplains; wooded wetlands; wooded slopes; wooded or partially wooded stream corridors with drainage areas greater than 50 acres; and riparian areas. The intent is to promote the health, attractiveness, and safety of the community; to foster aesthetically pleasing and environmentally sensitive development that protects and preserves the appearance and character of the City of Noblesville, and encourages preservation of natural areas such as mature tree stands and stream corridors. These regulations promote important physical and psychological benefits through the use of preservation and protection of the natural areas reducing noise and light pollution; promoting innovative and cost conscious approaches to design, installation, and maintenance of said areas, and establishes procedures for the administration and enforcement. {These regulations apply to both new site development and any redevelopment of a site.} **ORD. #32-10-11**

A. Natural Area Tree Preservation Plans

1. Tree Preservation Plans shall be submitted prior to any site development {including redevelopment of a site, grading, excavating, construction of a new building or structure, new site development and/or other use or permit as deemed appropriate by the Director of Planning or his/her designee.} **ORD. #32-10-11**

2. Evaluation of the tract’s natural areas shall be undertaken by an arborist, landscape architect, or horticulturalist.
3. All trees which possess a diameter requirement of a minimum of six (6) inches shall be inventoried and included on the Tree Preservation Plan.
4. Tree Preservation Plans shall detail locations, sizes, and common name of preserved trees, individual shrubs, areas of dense tree or shrub concentrations, and other natural features that are to be preserved or removed.
5. Existing trees that are preserved shall be credited toward required landscaping requirements based on the sizes and locations of such preserved trees.
6. Fencing, barriers, or other materials shall be specified on the Tree Preservation Plan. All tree preservation plans shall be approved by the Director of Planning and Development or his/her designee.

B. Tree Preservation

1. Trees must have a life expectancy of greater than ten (10) years.
2. Trees/vegetation shall be in good condition.
3. Trees shall have a relative sound and solid trunk with no extensive decay.
4. Trees shall have no more than one major dead limb or several minor dead limbs.
5. Trees shall have no major insect or pathological problems.

C. Tree Preservation Efforts

1. The practicality of arranging the site plan components around existing natural areas shall adhere to the following:
 - a. Plans for groups of structures should be designed to preserve areas of high tree concentrations, desirable individual tree specimens, and desirable stands of trees and shrubs.
 - b. The condition of the vegetation with respect to its continued vitality.
 - c. The possibility of preserving vegetation through pruning rather than removal.
 - d. The desirability of a particular tree or species by reason of its appearance, historic or ecological significance, botanical characteristics, and the function that the vegetation would fulfill as a site plan component.
 - e. The practicality and economic possibility of designing the location and grades of proposed structures and paving to preserve existing vegetation.
 - f. The potential for interference with utility services along the use of the roads and walkways.

D. Credits for Saving Mature Trees

Where it is possible to save older and/or larger trees, each tree determined to quality and designated on the landscape plan subsequently shall be saved and credited toward other required tree plantings. The location of the trees to be saved shall be used to determine the areas where landscaping requirements can be redirected. The diameter of the trees that qualify under this section, and the respective credits that they merit, are listed in the table below:

Table 12.0.13.D.

TREE PRESERVATION CREDITS	
Diameter of Tree <i>(measured at a point four (4) feet above grade)</i>	Credit
Less than 2.5 inches	No Credit
2.6 inches to 5.9 inches	1 to 1
6 to 17.9 inches	2 to 1
18 inches or greater	3 to 1

E. Protection Practices

1. Protecting the root zone is the most critical factor in tree preservation throughout the development process. Disturbances within this area directly affect tree survival. To protect the root zones, the following standards apply:

- a. When earthwork, grading, or construction activities are planned adjacent to a natural area, a limit of disturbance line shall be shown on the construction plans and tree preservation plans. All such areas shall be protected through installation of temporary fencing, barriers, or other measures approved by the Director of Planning. Such fencing, barriers, or other materials shall be installed and identified through signage as a ‘TREE PRESERVATION ZONE’ (multiple signs) prior to commencing land disturbance, and shall remain throughout the period of construction.
- b. Barriers shall be used to protect trees during site development. The root zone of trees shall include no less than the total area beneath the tree(s) canopy as defined by the farthest canopy of the tree(s) plus a five-foot (5) wide protective buffer.
- c. Disturbed areas adjacent to tree preservation zones shall be mulched to provide additional protection to tree roots.
- d. Grading measures or protective devices, such as tree wells, tree walls, or specialized fill and pavement designs, shall be installed when necessary to preserve identified tree specimens.
- e. Grade changes adjacent to tree preservation zones shall not result in alteration to soil or drainage conditions that would adversely affect existing vegetation. These areas shall be evaluated for flood tolerance and storm water routed around these areas deemed intolerant of an increase of additional flow from urbanization.
- f. Construction site activities such as parking, material storage, burry pits, concrete washout, etc., shall not be allowed within the Tree Preservation Zone.
- g. The determination of sight-distance clearances along roadways shall be completed graphically and submitted to the Department of Planning and Development for review and approval.
- h. No disturbance shall be permitted within the Tree Preservation Zone including trenching, backfilling, driving or parking equipment, and/or dumping of trash, oil, paint, or other materials detrimental to plant health. No vehicles, machinery, tools, chemicals, construction materials, or temporary soil deposits shall be permitted within such barriers. No notices or other objects shall be nailed or stapled to preserved trees.
- i. Mature Trees shall not be topped. The trees shall be pruned according to procedures established by the American National Standards Institute A300 Pruning Standards.
- j. Should any tree designated for preservation die within five (5) years of project completion, the owner/developer/association shall replace such tree with a tree of equal tree preservation value within 180 days based on the following calculations:

Table 12.0.13.E.j.

TREE PRESERVATION REPLACEMENT REQUIREMENT	
Diameter of Tree Removed	Calculation for required number of replacement trees at 2.5 inches caliper
Less than 8 inches	Diameter of tree removed divided by 2.5
8 to 16 inches	2 times diameter of tree removed divided by 2.5
Greater than 16 inches	4 times diameter of tree removed divided by 2.5

- k. Trees, vegetation, and shrub removal shall not be permitted prior to the issuance of an improvement location permit.
- l. Plantings, landscaping, and removal of existing natural areas shall be subject to inspections to verify compliance.