

6.08 LANDSCAPING AND BUFFERING

A. PURPOSE AND INTENT

The minimum standards for this provision include the installation and maintenance of landscape plantings which are necessary to preserve and enhance the aesthetic beauty of the city, and to ensure the health, safety, and general welfare of its residents. More specifically, the intent of these regulations is to provide for adequate buffering between incompatible land uses; protect, preserve and enhance the aesthetic appeal and scenic beauty of the city; reduce noise and air pollution; reduce storm water run-off; filter and reduce glare from artificial light sources; and provide shaded areas along streets and in parking lots.

B. APPLICABILITY

The landscaping and buffering standards of this Section shall apply to the following:

1. All new developments (except for infill single-family detached) shall be designed in accordance with the requirements of this Article.
2. Pre-existing development
 - a. Non-conforming preexisting development is subject to these standards as follows:
 - (1) A change in type of occupancy, as set forth in the North Carolina Building Code
 - (2) A change in land use which requires an increase in the number of off-street parking spaces or the provision of a buffer yard
 - (3) Additions or expansions which singularly or collectively exceed 25% of the land area or gross building floor area existing at the effective date of this ordinance.
 - b. The City of Dunn recognizes that designing preexisting development to meet new regulations is more difficult and expensive than applying these standards to undeveloped properties. Therefore, greater flexibility will be afforded preexisting development in meeting the requirements of this Section, in that:
 - (1) A modification of up to 25% percent may be granted by the Administrator for planting area and dimension requirements where compliance presents hardships due to building location, lot size, or vehicular area configuration.
 - (2) A credit for reducing required off-street parking by one (1) space shall be given for the construction of each landscape island.

C. STREET TREES

1. Street yard trees are an essential part of the City streetscape. Street trees or front yard trees are planted in the public right-of-way or on in the front yard of private property, just outside of the right-of-way line.

The City seeks to maintain existing trees where possible and to encourage the planting and continuance of the established street tree patterns. To accomplish this objective, the following shall apply:

- a. All subdivisions and developments subject to approval shall provide street trees along their frontage with adjacent public streets.
 - b. Street trees shall be planted on private property or on the public right-of-way. When planted on private property, they shall be located five (5) to ten (10) feet from back of curb or edge-of-sidewalk, whichever is greater, or as close as possible to those criteria.
 - c. Street trees shall be selected from the list of small or understory trees, or, where power lines are located, small trees included in *Appendix B* of this ordinance.
 - d. Where necessary, planting strips shall be a minimum of five (5) feet wide.
 - e. Planting location shall take into consideration planned roadway widening, public safety, standard drainage requirements, and maintenance of sight distances for traffic safety.
2. Front yard trees, unless subject to overhead power lines, shall be planted at the rate of one (1) two-inch caliper tree per forty (40) feet of property line abutting a public street, excluding driveways and traffic visibility zones. This rate may be varied based upon planned signage areas, existing trees, and the crowns of planted trees.
 3. Trees used to meet buffer and vehicle use area requirements, may be used to meet the street requirements to the extent that the trees are located within twenty-five (25) feet of a street.

D. BUFFER YARD REQUIREMENTS

1. Buffers provide compatible transitions between differing land uses, reduce the visual impacts of development and retain existing plant materials.
2. In situations where a development is adjacent to multiple uses then the most restrictive buffer requirement for a property line shall be required along each side and rear property line abutting the property, otherwise the development shall follow the requirements listed below. Buffer-yards shall be required to meet the following minimum screening requirements:

	TYPE A	TYPE B
ADJACENT LAND USES	Residential vs. Non-Residential	Residential vs. Residential and Non-Residential vs. Non-Residential
MINIMUM # OF TREES	3/1000 square feet	2/1000 square feet
MINIMUM # OF SHRUBS	12/ 1000 square feet (3 gal. min. at planting; 6' min at maturity)	8/ 1000 square feet (3 gal. min. at planting; 4' min at maturity)

	TYPE A	TYPE B
MINIMUM % OF EVERGREEN	75%	50%

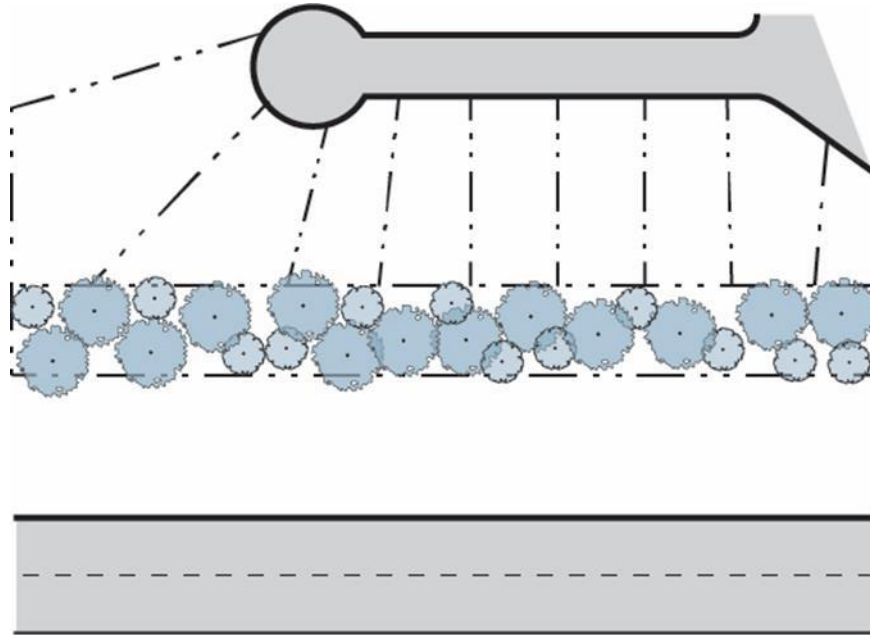
Type C. A five-foot landscaping buffer; typically the areas abutting a right of way and other perimeters not required to have either a type A or type B buffer-yard, typically on the front and corners side property lines or adjacent to similar uses (indicated by a "-" in the land use relationship table below). This type of buffer shall consist of, lawn, low-growing evergreen shrubs or broadleaf evergreens, or other ground cover.

- The following land use relationships shall be used to determine required screening and buffering as provided in Subsection 2 above. Buffer-yards shall range in width from ten (10) to forty (40) feet. The following land use relationship table illustrates the required buffer-yard widths, in feet:

ADJACENT ZONING DISTRICT									
DISTRICT OF PROPOSED DEVELOPMENT	RA-40, R-20, R-10	R-7,	R-M	MXU	C-1	C-2	C-3	C-4, O&I	I-10, I-100
RA-40, R-20, R-10	-	-	20'	-	10'	20'	20'	20'	50'
R-7	-	-	20'	-	10'	20'	20'	20'	50'
R-M	20'	20'	-	-	-	20'	20'	20'	50'
MXU	-	-	-	-	-	20'	20'	-	50'
C-1	10'	10'	-	-	-	-	-	-	20'
C-2	20'	20'	20'	20'	-	-	-	10'	20'
C-3	20'	20'	20'	20'	-	-	-	10'	20'
C-4, O&I	20'	20'	20'	-	-	10'	10'	-	20'
I-10, I-100	50'	50'	50'	50'	20'	20'	20'	20'	-

4. Exceptions to the land use relationships.

- a. All residential developments shall maintain a minimum type A buffer of forty (40) feet parallel to any railroad right-of-way and arterial street right-of-way as illustrated below:



- b. All developments adjacent to a public park with active recreation shall require a minimum type A buffer of twenty (20) feet.
- c. A greenway trail may exist in any required buffer, if a greenway trail is dedicated in a required buffer there shall be a reduction of the required planting equal to one-half of the standard requirement.

E. ADDITIONS TO BUFFERS AND SCREENING

When it is determined that the conflict of land use is so great that the public safety is not served adequately by the minimum buffer and screening requirements, or where there is a need to prevent a high degree of visual, audio, or physical disorders, then the Administrator may require the installation of fencing or earthen berms in addition to the minimum required buffers and screening, according to the standards below.

1. **Fencing or Walls.** Where required as part of a buffer yard, fencing or walls must adhere to the provisions below. Nothing in this Section shall prohibit the owner of a single-family dwelling from constructing a separate fence along the borders of such property, provided that all required buffer plantings are maintained.
- a. In all cases, the finished side of the fence must face the use with the lower intensity.

- b. Permitted fence or wall materials include masonry, stone, architectural block, stucco on masonry, wood or other similar of solid appearance.
 - c. The design of fencing or walls shall be sufficient to meet the extent of physical screening required by this Ordinance.
 - d. The height of the fence shall be six (6) feet.
 - e. A decorative masonry post or other visual embellishment or variation shall be required every sixty (60) feet for fences longer than 130 feet.
2. **Berms.** Earthen berms may be required in combination with plant material and fencing for the purposes of screening. Berms shall be tapered appropriately to allow for practical maintenance.
- a. The slope of all berms shall not exceed a 2:1 ratio (horizontal to vertical), shall have a top width at least one-half the berm height, and a maximum height of six (6) feet above the toe of the berm.
 - b. All berms regardless of size, shall be stabilized with a grass or other approved vegetative ground cover. Top soils brought in for mounds are to be mixed with native soil to avoid interfacing problems.
 - c. Berms shall be constructed as to provide adequate sight distances at intersections and along all roads.
 - d. Berms proposed to satisfy the screening requirements of this Section shall be vegetated as required by this Section. All plantings shall be located either on top of the berm or between the berm and the public right-of-way.
 - e. Use of berms as a substitute for existing healthy vegetation is strongly discouraged.
 - f. Berms shall be designed so as not to obstruct pre-development or post-development water flow across the landscape or cause ponding. Culverts, under drains, or other features may be necessary.

F. VEHICULAR USE AREA SCREENING & LANDSCAPING

- 1. All off-street parking, loading areas, and service areas adjacent to and/or visible from a public right-of-way and adjacent properties shall be screened from view by use of one or more of the following:
 - a. A building or buildings
 - b. A change in topography
 - c. A planting area a minimum of eight (8) feet wide planted with evergreen shrubbery placed a maximum of five (5) feet on center. All shrubs shall achieve a height of four (4) feet within three years
 - d. Fencing, walls, or berms
- 2. This Section shall not apply to the C-1 district. Parking areas in the C-1 district shall have wheel stops or curbing installed so as to not allow the front of a vehicle to protrude into the public right-of-way.

3. If the parking area does not exceed ten thousand (10,000) square feet in area, then such landscape strip shall be a minimum of five (5) feet in width and shall contain a minimum of eight (8) shrubs per forty (40) linear feet of street frontage. Such required shrubs shall be a species with a minimum mature height of three (3) feet.
4. If the parking area exceeds ten thousand (10,000) and does not exceed one hundred thousand (100,000) square feet in area, then such landscape strip shall be a minimum of eight (8) feet in width and shall contain a minimum of one (1) shade tree and eight (8) shrubs per forty (40) linear feet of street frontage. Such required shrubs shall be a species with a minimum mature height of three (3) feet.
5. If the parking area exceeds one hundred thousand (100,000) square feet in area, then such landscape strip shall comply with one (1) or a combination of the following options:
 - a. Such landscape strip shall be a minimum of twenty (20) feet in width and shall contain a berm with a minimum height of two and one-half (2.5) feet above the finished elevation of the parking area. Such berm shall have a maximum slope of one foot of rise to three feet run (1:3) and a minimum crown width of three (3) feet. In addition to the required berm, one (1) shade tree and eight (8) shrubs per forty (40) linear feet of street frontage shall be required.
 - b. Such landscape strip shall be a minimum of twenty-five (25) feet in width and consist of undisturbed vegetation in healthy condition.
6. **Peripheral landscaping requirements.** A landscape border a minimum of five (5) feet in width shall encompass the periphery of parking areas not located adjacent to public rights-of-way. Such landscape border shall be required between any parking area and any property line, yard, required yard, or buildings. Such landscape border may be interrupted for ingress and egress to buildings and adjoining lots. The landscape border shall contain a minimum of one (1) shade tree or one (1) ornamental tree, and eight (8) shrubs per forty (40) linear feet of perimeter.

This Section shall not apply to the C-1 district. Parking areas in the C-1 district shall have wheel stops or curbing installed so as to not allow the front of a vehicle to protrude into adjacent property.

7. In addition to screening requirements, canopy trees shall be installed in planting areas within parking lots to provide shade coverage for all parking spaces within vehicle service areas. Such planting areas shall meet the following requirements:
 - a. **Planting Island Frequency:** A maximum of twelve (12) consecutive parking spaces in a row shall be permitted without a tree landscape island or peninsula.
 - b. **Planting Area Width:** The minimum width for a tree landscape island or peninsula that is parallel to a parking space shall be nine (9) feet, and the minimum length for the same shall be eighteen (18) feet.

- c. **Trees & Groundcover:** Each planting island shall contain a minimum of one (1) shade tree and the balance of the area shall contain mulch, groundcover, or shrubs to protect against soil erosion.
- d. **Barriers or Wheel Stops:** Barriers, such as wheel stops or six (6) inch standard curbs, must be provided between vehicular use areas and landscaped areas or wherever vehicles may obstruct pedestrian or wheel chair access.
- e. **Conflict with Parking Lot Lighting:** Trees shall be located and planted so as not to diminish the effectiveness of required parking lot lighting, and in no instance shall lighting be located closer than fifteen (15) feet to canopy trees and eight (8) feet to understory trees.
- f. No more than four (4) double rows of parking spaces shall exist without a landscape island extending the entire length of one double row of parking. Such tree landscape island shall be a minimum of nine (9) feet in width and shall contain one (1) shade tree per forty (40) linear feet of length and the balance of the area shall contain a permeable ground cover.
- g. The Administrator may require the channelization of ingress and egress points to parking areas in order to facilitate and ensure the safe and efficient movement of vehicular traffic into, from, and through such parking area. Channelization may be accomplished by limiting parking spaces along primary ingress and egress points, and or the use of tree landscape islands, raised concrete islands, or other structures that will guide and delineate traffic flow.

G. SCREENING OF OUTDOOR STORAGE

In addition to the buffer yard requirements provided by this Article, all non-residential outdoor storage yards must be screened with the use of:

- 1. Solid-wood fence, or fabricated metal fence, each with shrub plantings placed around the enclosure that grow as high, or nearly as high, as the fence to provide an attractive separation, or
- 2. Brick fence, brick/split face block, or decorative block (plantings not required).

H. SCREENING OF BMP FACILITIES

Any Stormwater BMP Facility that is required by this Ordinance and is at least eighteen (18) inches in depth, as measured from the top of bank, shall be enclosed by a fence. The required fence shall be a black or green vinyl coated chain-link fence that is at least four (4) feet in height. (It should be noted that the applicant should consider whether a greater fence height is needed to provide an appropriate level of safety.) The fence shall have one or more gates to allow an appropriate level of access for the purpose of facility maintenance. Upon written request by the applicant, the Administrator may waive or modify the fencing requirement when it finds any one of the following:

- 1. The required fencing is not necessary to provide for the public health and safety because of the Stormwater BMP Facility's design, location or combination thereof.

2. The modified fencing proposal provides adequate protection of the public health and safety.
3. The Stormwater BMP Facility is designed to be an amenity to the development and the provision of a fence would lessen its effectiveness to do so.

I. DUMPSTERS, LOADING AREAS AND MECHANICAL UTILITIES SCREENING

1. All dumpsters, loading docks and utility structures, which are visible from a public street or adjacent property line shall be screened unless already screened by an intervening buffer yard.
2. Screening shall consist of evergreen shrubs, fencing, walls or berms, and shall comply with all other standards of this Section.
3. All screening of utilities shall comply with the requirements of the utility provider.
4. Enclosures for dumpsters shall be constructed with materials that are consistent with the design and materials of the principal building. Screening may be created through the use of:
 - a. Solid-wood fence, or fabricated metal fence, each with shrub plantings placed around the enclosure that grow as high, or nearly as high, as the fence to provide an attractive separation
 - b. Brick fence, brick/split face block, or decorative block (plantings not required)

J. UNAVOIDABLE DELAY IN INSTALLATION

Installation of landscaping must be completed in accordance with an approved landscape plan. Unusual environmental conditions such as drought or ice may occur or the appropriate planting season may not parallel that of the development's construction. In such cases, a temporary Certificate of Compliance for a specified period may be issued based on a performance guarantee. Performance guarantees shall be accompanied by a description of the factor(s) hindering installation of landscaping and a written estimate of materials and installation from a landscaping contractor. Such guarantee may be in the form of a letter of credit, a bond, a certified check or cash and shall be in the amount of 125% of the total price reflected in the estimate. The amount shall be reviewed and approved by the Administrator. The performance guarantee will be released after landscaping is installed in accordance with the landscaping plan.

K. GENERAL INSTALLATION AND MAINTENANCE STANDARDS

It shall be the responsibility of the property owner(s) or assigned caretakers to ensure that all regulated landscaped areas, buffers, fencing, and tree save areas are installed, preserved, and maintained in good growing conditions, appearance, and usefulness. Damage and disturbances to these areas shall result in vegetation replacement and/or fines and other penalties. Preservation and maintenance shall include:

1. Any dead, unhealthy, or missing vegetation, shall be replaced with vegetation that conforms to the standards of this Section and the approved site and/or subdivision plan.

2. All required buffers, street yards, vehicular use areas, tree save areas and other landscaped areas shall be free of refuse and debris, shall be treated for pest/diseases in accordance with the approved site and/or subdivision plan, and shall be maintained as to prevent mulch, straw, dirt, or other materials from washing onto streets and sidewalks.
3. The owner(s) shall take actions to protect all plant material from damage during all facility and site maintenance operations. All plant material must be maintained in a way that does not obstruct sight distances at roadways and intersections, obstruct traffic signs or devices, and interfere with the use of sidewalks or pedestrian trails. Plant material, whether located within buffers, tree save areas, or within planted areas (required by the site and/or subdivision plan) shall not be removed, damaged, cut or severely pruned so that their intended form is impaired. Shrubs within vehicular use areas, street yards, and street fronts may be pruned, but must maintain at least three (3) feet in height.
4. In the event that existing required vegetation located within any buffers, tree save areas, street yards, vehicular use or other landscape areas poses an immediate or imminent threat to improved structures on private property or public property, necessary pruning or removal of the vegetation may be allowable provided authorization is obtained from the Administrator, and the performance standard of the landscape area is maintained consistent with this Section. Replacement vegetation may be required as a condition of the permit.
5. In the event that any vegetation or physical element functioning to meet the standards of this Section is severely damaged due to an unusual weather occurrence or natural catastrophe, or other natural occurrence, the owner may be required to replant if the requirements of the Section are not being met. Replacement vegetation shall conform to the standards of this Section and the approved site and/or subdivision plan.

L. LANDSCAPE PLAN PREPARATION

1. All landscape plans shall be drawn to scale and prepared in a professional manner. The Administrator shall reserve the right to refuse acceptance of landscape plans that have not been prepared in a professional manner. All landscape plans shall comply with the requirements set forth herein. Landscaping shall not be haphazardly placed in order to fill left over space, but rather to accomplish the intent of these regulations as required herein. The landscape plan shall illustrate the following information:
 - a. Location and labels for all proposed plant materials;
 - b. Location and labels of existing vegetation to be saved or remain undisturbed;
 - c. Methods and details for the protection of existing vegetation;
 - d. Location and specifications for proposed fences, walls, or berms;
 - e. Plant list or schedule with the botanical and or common name, quantity, spacing, and size of all proposed materials at the time of installation;

- f. Location of all existing and proposed structures, paved areas, landscape islands, and sidewalks.
- 2. If an irrigation system is proposed that is equipped with automatic timers and is connected to the city public water system, then such system shall be equipped with automatic rain and soil moisture sensors that are activated to prevent the operation of those irrigation systems while rain is falling and/or when soil moisture is adequate. Any irrigation system connected to the city public water system shall require the installation of a double backflow protection device.

M. ALTERNATE LANDSCAPING PLANS

The Administrator shall allow deviations to this Section when in the opinion of a licensed landscape architect alternative plantings are necessary due to proximity to utilities or that an alternative landscape design will provide preferable results. At their discretion, the Administrator may consult with a third-party landscape architect for a second opinion, and any costs incurred shall be charged to the applicant.

N. RECOMMENDED PLANT LIST

See *Appendix B* for the official planting list. It contains some plant species that are native or are known to be suitable for the climate of the area. Applicants seeking landscape approval shall not be required to select materials from the following list but shall be required to select plant species that are known to be suitable for the climate of the area.

6.09 BUILDING DESIGN STANDARDS

A. PURPOSE AND INTENT

The purpose of establishing building design requirements for development is to ensure that the physical characteristics of proposed development are compatible with the context of the surrounding areas and to preserve the unique visual character and streetscapes of Dunn. These requirements strike a balance between creativity and innovation on one hand while avoiding obtrusive, incongruous structures on the other. Dunn strongly encourages architectural styles that build upon and promote the existing historic character of the City and supports the view that inspiring, well-maintained, and harmonious development is in the best economic development interests of all residents and businesses.

B. APPLICABILITY OF STANDARDS

The provisions in this Section shall apply to all new multi-family and non-residential structures and expansions to existing structures with the zoning designation of C-1 & MXU. Only Subsections F, I, and J apply to residential structures unless provided as an agreed upon condition through the Conditional Zoning process.

Appendix B – Planting List

B.01 RECOMMENDED PLANTING LIST

The following list contains plant species that are native to the Dunn region or are known to be suitable for the area's climate. Alternative species may be substituted to satisfy the requirements of this Ordinance. If an alternative species is chosen, the applicant shall provide proof that the selected plant species are suitable for the region.

A. SHADE TREES

1. American Beech
2. Bald Cypress
3. Black Gum
4. Elm
5. Hickory
6. Japanese Zelkova
7. Laurel Oak
8. Live Oak
9. Pecan
10. Pin Oak
11. Poplar
12. Red Maple
13. Red Oak
14. River Birch
15. Southern Magnolia
16. Southern Sugar Maple
17. Sycamore
18. Water Oak
19. White Oak
20. Willow Oak

B. ORNAMENTAL TREES

1. American Holly
2. Carolina Silver Bell
3. Crabapple
4. Crape Myrtle
5. Eastern Redbud
6. Flowering Apricot
7. Flowering Dogwood
8. Japanese Maple
9. Red Cedar
10. Saucer Magnolia
11. Southern Magnolia
12. Star Magnolia
13. Wax Myrtle

14. Yaupon Holly

C. EVERGREEN TREES

1. Carolina Cherry Laurel
2. Canadian Hemlock
3. Eastern Red Cedar
4. Douglas Fir
5. Leyland Cypress
6. White Cedar

D. SHRUBS & HEDGES

1. Abelia
2. Azalea
3. Barberry
4. Boxwood
5. Camelia
6. Dwarf Yaupon Holly
7. Gardenia
8. Hydrangea
9. Indian Hawthorn
10. Juniper
11. Nandina
12. Rosemary
13. Wax Myrtle
14. Red tips
15. Privet

E. GROUND COVER

1. Carolina Jasmine
2. Centipede Grass
3. Common Periwinkle
4. Confederate Jasmine
5. Creeping Fig
6. Creeping Gardenia
7. Creeping Juniper
8. Daylily
9. English Ivy
10. Fescue Grass
11. Honeysuckle
12. Lantana
13. Liriope
14. Verbena
15. Winter Creeper
16. Zoysia Grass