



Division 4. Landscape Buffers and Screening

Sec. 44-523. Landscaping standards.

Purpose: Landscaping, visual screening and buffers must be provided for all non-residential and multi-family uses for the following:

- ◆ *Remove, reduce, lessen or absorb the impact between one use or zone and another;*
- ◆ *Break up and reduce the impact of large parking areas;*
- ◆ *Provide aesthetic and visual interest;*
- ◆ *Obscure the view of outdoor storage, dumpsters, parking and loading areas;*
- ◆ *Provide protection from soil erosion, radiant heat, glare from headlights, noise pollution, storm water drainage problems; and*
- ◆ *Improve the urban and rural landscape resulting from the impacts of development and disturbance.*

(a) *Applicability.*

- (1) The landscaping requirements for parking applies to all surface parking facilities, except for one-or 2-family dwellings not subject to a planned development.
- (2) The landscaping requirements do not apply to underground parking facilities.

(b) *Generally.*

- (1) Required landscaping cannot obstruct visibility at intersections as required in Sec. 44-407.
- (2) In providing the vegetation required by this Division, the retention of existing significant vegetation is encouraged.
- (3) All dead or dying trees, stumps, litter, brush, weeds or other nuisance materials must be removed from the site at the time of occupancy.
- (4) All roadway slopes must be landscaped and all cuts and fills must be designed and/or vegetated to be sufficient to prevent erosion.
- (5) Developments must utilize existing topography, such as hills, ridges and berms, to screen parking and maintenance areas to the maximum extent possible.
- (6) All landscaping and screening which provide buffering and screening must be maintained as depicted on the detailed site plan. All landscaping and screening must maintained by the developer, unless or until maintenance responsibilities are transferred or assigned to individual(s), a homeowners association or other responsible entity. Sustainable maintenance systems, such as rain barrels or cisterns, which are architecturally compatible with the structure, are encouraged.
- (7) All plant material used must be classified as safe to use in USDA hardiness zone 7 or less, to ensure they can survive an average minimum



temperature of 0 degrees Fahrenheit. Drought tolerant plant materials are encouraged.

- (8) The *Manual of Woody Landscape Plants*, latest edition, by Michael A. Dirr should be used as reference for the plant material standards.

(c) *Driveway landscaping requirements.*

- (1) Paved driveways into parking facilities must be bordered by a landscape strip a minimum of 8 feet in width; or
- (2) The landscape strip must consist of:
- At least 75% evergreens spaced a maximum of 6 feet apart in a minimum single or staggered row; or
 - A row of ornamental trees spaced a maximum of 15 feet apart on each side of the driveway.
 - The driveway landscape strip is required to extend 60 feet from the right-of-way or the full length of the driveway, whichever is less.
 - The balance of the landscape strip must be covered with turf, a ground cover, such as, annuals or perennial planting beds, ornamental grasses, rock or wood mulch.
- (3) In lieu of the landscape strip bordering the driveway, landscaped planting beds may be installed at both sides of the driveway entrance having an area equal to that of the area of the driveway landscape strip; and
- (4) Any area where the driveway landscape strip abuts the parcel perimeter buffer, that portion of the driveway landscape strip is not required.

(d) *Perimeter landscaping requirements for parking facilities.*

- (1) Parking facility – rear yard. The perimeter of surface parking lots and the ground level of parking decks must be landscaped by a vegetative strip a minimum of 8 feet in width. The landscaping strip must consist of 75% evergreens planted in a single or staggered row a minimum of 6 feet apart. The remaining 25% may consist of ornamental trees or deciduous shrubs. Ornamental trees may be planted intermittently throughout the perimeter landscape strip. The plantings consisting of low-growing evergreen shrubs, with the exception of the ornamental trees, cannot exceed 3 feet in height in order to address safety and visibility issues.
- (2) Parking facility – front or side yard. The perimeter of surface parking lots and the ground level of parking decks must be landscaped by a vegetative strip a minimum of 12 feet in width, exclusive of abutting reserved or dedicated right-of-way. For parking facility perimeters in the front or side yard, require a staggered **double row** of vegetation which includes 75% low-growing evergreen shrubs planted 6 feet on center. The remaining 25% of the vegetation may be planted with ornamental trees or low-growing deciduous shrubs. Ornamental trees may be planted intermittently throughout the perimeter landscape strip. The plantings



consisting of low-growing evergreen shrubs, with the exception of the ornamental trees, cannot exceed 3 feet in height in order to address safety and visibility issues.

- (3) Manicured turf, crushed brick, stone, ground hugging vines or shrubs, ground cover, annuals, perennials, ornamental grasses, rock or wood mulch must cover the balance of the area.
 - (4) Where the parking facilities are within 35 feet of the perimeter buffer abutting the side or rear yard, the parking perimeter landscape strip may be deleted.
- (e) *Internal parking area landscaping.*
- (1) All parking areas must have landscaped islands.
 - a. If the parking facility is visible from a street, a landscape island is required for every 10 spaces in a continuous row.
 - b. If the parking facility is not visible from a street, a landscape island is required for every 15 spaces in a continuous row.
 - (2) Each island must be a minimum of 8 feet in any horizontal dimension, with concrete or asphalt curbing.
 - a. The island must contain at least one major shade tree having a clear trunk height of at least 5 feet and a minimum of 2-inch caliper diameter at breast height (DBH). The tree must be a minimum 15-gallon size or balled and burlapped at time of planting.
 - b. Turf, ground cover, perennials, ornamental grasses, rock or wood mulch must cover the balance of the landscape island.
 - (3) Foundation plantings or plantings along the perimeter of the parking lot, or in any part of a yard, is not considered as meeting the interior parking landscape requirement.
- (f) *Parcel perimeter buffer.*
- (1) *Buffer requirement.* More intensive uses must buffer between adjoining less intensive uses as defined in Table 44-523-1.



Table 44-523-1. Use intensity.

<p>Less Intensive Use</p>  <p>More Intensive Use</p>	Single-family & 2 family
	Nonresidential uses in residential districts, for example churches, schools & special uses
	Multi-family uses
	O & I uses
	RC or HC uses
	LI and GI uses

- (2) *Width of vegetative buffer area.* Each required vegetative buffer area must have a minimum width of 15 feet.
- (3) *Screening.* Screening within the buffer area must consist of one of the following to create a solid screen:
 - a. A dense vegetative planting incorporating trees and/or shrubs of a variety that must be equally effective in winter and summer to achieve a solid continuous visual screen within 5 years after the initial installation.
 1. All plant materials must be a conifer or broadleaf evergreen to achieve a minimum height of 6 feet within 5 years.
 2. Trees and/or shrubs must be adequately spaced.
 3. If a buffer area is greater than 100 feet in length, more than one species of plant material is required in order to minimize insect and disease infestations.
 4. One ornamental tree or large canopy tree is required for every 150 linear feet of buffer area. It may be planted in the buffer area or in the immediate adjacent area. It shall meet the following minimum standards:
 - i. Each tree, at the time of installation, must have a clear trunk height of at least 5 feet and a minimum caliper DBH of 2 inches or a 15-gallon container size or balled and burlapped at time of planting.
 - ii. Mature height must be at least 20 feet unless overhead utilities are in the planting area.
 - b. No additional buffering is required if:



1. Existing vegetation, located on the subject property, affords the degree of buffering and screening, in terms of height, opacity and separation, equivalent to or exceeding that found in a. above,; or
 2. Existing vegetation, located on the adjoining property, affords the degree of buffering and screening, in terms of height, opacity and separation, equivalent to or exceeding that found in a. if the subject property owner acquires a preservation easement from the adjoining property owner. The preservation easement must be recorded at the County Register of Deeds and state that vegetation will be maintained and no structure will be built in the easement.
 - c. A 6-foot opaque structure such as a solid masonry wall, or a solid fence that is compatible with the principal structure. Chain link fencing cannot be used to meet this requirement; or
 - d. A maintained, 3-foot earthen-mound or berm with vegetation to achieve a 6-foot screen with a minimum base width of 12 feet. This mound or berm cannot impound storm water runoff or direct runoff to adjacent properties. All plant materials must be evergreen and a minimum 3-gallon in size and 2 feet in height at the time of planting. Trees and/or shrubs shall be adequately spaced to form a solid continuous visual screen within 3 years after the initial installation. If a buffer area is greater than 100 feet in length, more than one species of plant material is required in order to minimize insect and disease infestations.
- (4) Exceptions to parcel perimeter screening requirements.
- a. Where a commercial or office-institutional development is proposed on a lot adjoining a vacant lot, the developer may be exempted from the parcel perimeter screening requirements, if the following conditions are met:
 1. Adjoining landowners execute a written acknowledgment of their consent to the waiver of such screening criteria and of its legal ramifications;
 2. The waiver is recorded at the register of deeds in both the grantor's and grantee's names; and
 3. The adjoining tract has either a natural vegetative or other screening structure or a minimum of 200 feet of road frontage, which acts to provide both a visual or a noise buffer between the developing lot and the affected tracts surrounding the adjoining lot which has waived the buffer requirements.
 - b. Where a church/synagogue or other places of worship or school is proposed on a lot adjoining a vacant or built upon lot, the place of



worship or school can be exempted from the perimeter buffer requirements if the following conditions are met:

1. Adjoining landowners execute a written acknowledgment of their consent to the waiver of such screening criteria and of its legal ramifications; and
 2. The waiver is recorded at the register of deeds in both the grantor's and grantee's names.
- (g) *Foundation plantings.* The pedestrian entranceway and/or surface parking facilities must be separated from the exterior wall of any principal structure by a landscape buffer. The landscaped buffer strip must be at least 5 feet in width along the building foundation or on the opposite side of the building entrance sidewalk. If the architecture makes this impractical, planter boxes which occupy 40% of the building façade length, or large flower pot type containers spaced a maximum of 20 feet on center along the entire façade may be used as an alternative.
- (h) *Street trees.*
- (1) *Street trees – multi-family or non-residential.* Street trees must be planted in all multi-family or non-residential developments. All public interior streets and development fronting along existing external roads must provide the following along all street frontages:
 - a. A 3 to 5-foot landscape strip between the curb and sidewalk, when sidewalks are required.
 - b. A 10-foot (minimum) landscape strip behind the right-of-way (within the front setback).
 - c. Street trees must be planted adjacent to the sidewalk or right-of-way and must meet the following.
 1. An average of one shade street tree is required for every 40 linear feet of road frontage on each side of the street, or where overhead lines are present, street trees of low growing varieties must be planted an average of one tree for every 30 feet of street frontage on each side of the street. Trees should be spaced approximately equal distance.
 2. Each tree, at the time of installation, shall have a clear trunk height of at least 5 feet and a minimum caliper of 2 inches or a minimum 15-gallon container size or balled and burlapped at time of planting. An appropriate mulch bed must be provided around the tree.
 3. In the absence of overhead lines in the planting area, the shade street tree should achieve a mature height of over 20 feet and a mature spread of at least 15 feet.



4. All trees planted within the public right-of-way shall require approval by NCDOT through an encroachment agreement.
 5. Street trees, whether planted within or outside of the public right-of-way, must be maintained by the developer, unless or until maintenance responsibilities are transferred or assigned to individual(s), a homeowners association or other responsible entity.
- (2) *Street trees – residential.* Street trees must be planted in all major subdivision developments along the internal subdivision roads and the frontage of a corner lot on an existing external road, where it intersects with the internal subdivision road. Street trees must be planted adjacent to the sidewalk (when required) or right-of-way and must meet one of the following:
- a. 2-inch caliper or 15 gallon container street trees must be planted in a staggered pattern every 50-feet of street frontage as measured along the street centerline; or
 - b. Existing vegetation which meet the standards of Subsection a. above.
- (i) *Alternative buffers and screening.* In lieu of compliance with the buffer and screening requirements in Subsection (3) above, an applicant may submit to the planning director for his review and approval a detailed plan and specifications for landscaping and screening. The planning director may approve the alternative buffering and screening, in writing, upon finding that the proposal will afford a degree of buffering and screening, in terms of height, opacity and separation, equivalent to or exceeding that provided by the requirements.

(Ord. No. 2008-17, 10/20/08)

Sec. 44-524. Screening of mechanical equipment.

All mechanical equipment, such as air conditioners or pumps, must be screened from view of all streets, public places and neighboring properties, through the use of features such as berms, fences, building walls, false facades, or dense landscaping. Chain link fencing cannot be used. Mechanical equipment on rooftops must be screened from the view of the street with parapets, designed features and other materials compatible with the building and suitable for screening.

Sec. 44-525. Central solid waste storage area.

All new buildings and uses, except for single-family and two-family dwellings, must provide facilities for the central storage of solid waste within the lot. Where facilities are provided outside of a building, they must be screened from public rights-of-way and adjacent property by an enclosure constructed of materials compatible with the materials on the front building wall of the principal building. All the areas must have a solid and closable gate.



Sec. 44-526. Screening of loading and service areas.

All loading and service areas must be screened from view of all streets and adjoining properties of less intensive use of through a buffer meeting the requirements of Sec. 44-523 (f). If the loading area abuts the perimeter buffering, the loading area is not required to be screened.

Sec. 44-527. Screening of open storage.

Open storage must be screened from any street or any less intensive land use, as required in Table 44-523-1 based on the principal use. Screening of the area used for open storage must meet the same requirements of Sec. 44-523(f)(2) and Sec. 44-523(f)(3). Open storage must be setback from adjoining property lines in accordance with the setback required for the principal structure (see Table 44-404-1).

Sec. 44-528 - 533. Reserved