# **Kershaw County Planning and Zoning Department**

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# BUFFERING, SCREENING, OPEN SPACE, AND LANDSCAPING REGULATIONS

Section 3:5, Unified Code of Zoning and Land Development Regulations

The regulations contained in this Article are intended generally to ensure land use compatibility, improve aesthetics, ensure adequate provision of open space, and protect trees within and throughout Kershaw County.

## 3:5.1 Buffer Areas

A buffer area (buffer yard) is a unit of yard, together with plantings, fences, walls, and other screening devices required thereon. The purpose of a buffer area is to ameliorate any potential negative impact between adjacent land uses and streets, and promote land use compatibility.

# 3:5.1-1 Applicability

Buffer areas shall be required for all proposed uses, in accord with Tables 3-13, 3-14, and 3-15. It shall be the responsibility of the proposed new use or a fifty (50) percent or more enlargement of an existing use to provide the buffer area where required by this Ordinance. This section does not preclude common walls between buildings on adjacent lots where allowable by zoning district regulations. Where property is screened by an existing building or wall, no additional buffering shall be required.

# 3:5.1-2 Party Responsible for Installation

Where a vacant parcel is being developed adjacent to another vacant parcel, then the developer(s) or owner(s) of the first parcel to be developed shall provide the perimeter landscaping required adjacent to the vacant land. Where a vacant parcel is being developed adjacent to an existing land use, then the developer(s) or owner(s) of the vacant parcel shall provide the perimeter landscaping required adjacent to the existing land use.

## 3:5.1-3 Zoning Change

If the zoning district classification for an existing use or parcel changes, then the parcel shall comply with the applicable landscaping requirements of this Article or, at a minimum, the intent of this Article as prescribed by the Planning Official. The owner(s) or developer(s) may need to install additional plant material on the parcel in order to meet the intent of this Article, especially on developed sites, or to bring the parcel up to the standards for the type of perimeter landscaping which would be required under this Article.

### 3:5.1-4 Location

Buffer areas shall be located on the outer perimeter of a lot or parcel, extending to the lot or parcel boundary line. For purposes of complying with this section, buffers shall not be located on any portion of an existing street or right-of-way; however, they may occupy part or all of any required front, side, or rear yard setback. Where specified by this section, buffer areas and/or structures shall be developed as an integral part of the proposed use.

### 3:5.1-5 Design Standards

Five (5) types of buffer areas are required by this Ordinance; Type "A", Type "B", Type "C", Type "D", and Type "E". Note that existing vegetation may be utilized per the Existing Plant Materials provisions of this section. Significant trees shall be utilized per the Tree Protection provisions of this Ordinance. The Planning Official shall

maintain a current list of tree and shrub species that shall be used to select the plant materials for the buffer areas. Alternate species not on the list must be approved by the Planning Official. A description of each buffer type follows.

- A. Type "A" Buffer Area The Type "A" Buffer Area consists of low density landscaping between a proposed use and the adjacent street, providing separation between the two. The buffer area shall be a minimum width of five (5) feet. Per 100 lineal feet of frontage or fraction thereof, not including driveway and walkway widths, and in consideration of visibility sight triangles, driveway sight triangles, and overhead utility lines, as applicable, the buffer area shall consist of a combination of not less than:
  - 1. Fifteen (15) perennial shrubs (may be clustered to ensure survival).
  - 2. Four (4) medium-maturing trees. Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.
  - 3. Landscaped grass areas or other appropriate groundcover.
- B. Type "B" Buffer Area The Type "B" Buffer Area is a low-medium density screen intended to obscure visual contact between uses and to create spatial separation. Type "B" Buffer areas are used as street and perimeter buffers per Tables 3-13, 3-14, and 3-15. The buffer area shall be a minimum width of fifteen (15) feet. Per 100 lineal feet or fraction thereof, not including driveway and walkway widths, the screen shall consist of a combination of not less than:
  - 1. Two (2) large-maturing shade trees planted forty (40) to sixty (60) feet on center.
  - 2. Three (3) evergreen trees.
  - 3. Three (3) medium-maturing trees.
  - 4. Twenty-five (25) perennial shrubs.
  - 5. Landscaped grass areas or other appropriate groundcover.

Tree requirement exception: Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.

- C. **Type "C" Buffer Area** The Type "C" Buffer Area is a medium-high density screen intended to exclude all visual contact between uses and to create spatial separation. The buffer area shall be a minimum width of twenty (20) feet. Per 100 lineal feet or fraction thereof, not including driveway and walkway widths, the screen shall consist of a combination of not less than:
  - 1. Two (2) large-maturing shade trees planted forty (40) to sixty (60) feet on center.
  - 2. Ten (10) to twelve (12) evergreen trees and four (4) to six (6) medium-maturing trees planted alternately in double staggered rows twelve (12) to fourteen (14) feet on center.
  - 3. Twenty-five (25) perennial shrubs.

Tree requirement exception: Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.

- D. Type "D" Buffer Area The Type "D" Buffer Area is a high density screen designed to provide maximum buffering and screening, to exclude all visual contact between uses, and to create spatial separation. The buffer area shall be a minimum width of thirty (30) feet. Per 100 lineal feet or fraction thereof, not including driveway and walkway widths, the screen shall consist of a combination of not less than:
  - 1. Three (3) large-maturing shade trees planted twenty (20) to forty (40) feet on center.
  - 2. Sixteen (16) to eighteen (18) evergreen trees and seven (7) to nine (9) medium-maturing trees planted in triple-staggered rows twelve (12) to fourteen (14) feet on center.
  - 3. Forty (40) perennial shrubs.

Tree requirement exception: Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.

E. Type "E" Buffer Area - The Type "E" Buffer is a residential street buffer required for all new planned residential subdivisions. Planned subdivisions include major subdivisions, large acreage residential subdivisions, and planned development districts. The buffer area shall be, on average, between five (5) and

ten (10) feet in width. Per 100 lineal feet of frontage or fraction thereof, not including driveway and walkway widths, and in consideration of visibility sight triangles and driveway sight triangles, as applicable, the buffer area shall consist of:

- 1. Three (3) large-maturing shade trees.
- 2. Landscaped grass areas or other appropriate groundcover.

Exception: Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet. If seventy-five (75) percent of the street frontage lies within the right-of-way of overhead utility lines, one additional small-maturing tree per 100 linear feet of frontage shall be provided.

Table 3-12 BUFFER WIDTH AND PLANT MATERIAL REQUIREMENTS					
	Type "A"	Type "B"	Type "C"	Type "D"	Type "E"
Minimum Width	5 feet	15 feet	20 feet	30 feet	5-10 feet
Perennial Shrubs	15	25	25	40	Optional
Trees, Medium-Maturing	4	3	4-6	7-9	Optional
Trees, Large-Maturing	Optional	2	2	3	3*
Trees, Evergreen	Optional	3	10-12	16-18	Optional
Groundcover	Landscaped	Landscaped	Optional	Optional	Landscaped
	Grasses or	Grasses or			Grasses or
	Appropriate	Appropriate			Appropriate
	Groundcover	Groundcover			Groundcover

**Note**: Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.

# 3:5.1-6 Specifications

- A. **Minimum Installation Size** At installation or planting, all plant material shall meet the following specifications:
  - 1. Shrubbery shall be a minimum three (3) gallon container size.
  - 2. All evergreen and medium-maturing trees used to fulfill buffer area requirements shall be no less than ten (10) gallon container size or one and one-half (1½) inch caliper, balled and burlapped.
  - 3. All large-maturing trees shall be not less than fifteen (15) gallon container size or two (2) inch caliper, balled and burlapped.
  - 4. Plant material shall be sufficiently large and planted in such a fashion that a year-round screen is produced within three (3) growing seasons.
  - 5. All plant material shall comply with ANSI Z60.1-2004: American Standard for Nursery Stock American Nursery & Landscape Association.
- B. Minimum Mature Size Plant material shall be selected that will meet the following specifications at maturity:
  - 1. Evergreen plant material and medium-maturing trees used for screening shall form a continuous opaque screen with a minimum average of twenty-five (25) feet in height.
  - 2. Deciduous large-maturing trees used for screening shall attain a minimum average of thirty-five (35) feet in height.
  - 3. Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.
- C. **Staggered Planting** Arrangement of plantings in buffers shall provide protection to adjacent properties. Possible arrangements include planting in parallel, serpentine, or broken rows. Where required, evergreen

<sup>\*</sup> If 75% of street frontage lies within the right-of-way of overhead utility lines, one additional small-maturing tree per 100 linear feet of frontage shall be provided.

and deciduous plant material shall be planted in at least two (2) rows and in an alternating fashion to form a continuous opaque screen of plant material.

Table 3-13 PERIMETER BUFFER AREA REQUIREMENTS: PROPOSED NON-RESIDENTIAL USES

	Existing Uses (In All Zoning Districts)			
Proposed Non- Residential Uses (in Specific Zoning Districts)	Single-Family, Cemeteries	Duplex, Triplex, Quadruplex	Multi-Family, Manufactured Home Parks	Vacant Property Zoned Residential
R-15, R-10, R-6 - Institutional Uses	С	В	В	С
O-I	С	В	В	С
B-2	D	С	С	D
B-3	С	В	В	В
I-1	D	D	D	D
GD – Manufacturing Uses	D	D	D	D
GD – Large Retail and Wholesale Uses	D	С	С	D
GD – Office, Small Retail	D	С	В	С
GD – All Other Uses	D	С	С	D
RD-1, RD-2, MRD-1	С	В	В	С

Table 3-14 PERIMETER BUFFER AREA REQUIREMENTS: PROPOSED RESIDENTIAL USES

	Existing Uses (In All Zoning Districts)			
Proposed Use	Single-Family	Duplex, Triplex, Quadruplex	Multi-Family, Manufactured Home Parks	Vacant Property Zoned Residential
Single-Family	None	C*	C*	None
Duplex, Triplex, Quadruplex	С	None	В	С
Multi-Family	С	В	None	С
Manufactured Home Parks	D	С	В	D

<sup>\*</sup> Applies to single-family residential developments locating adjacent to duplex, triplex, and quadruplex developments, or apartment complexes and manufactured home parks.

# Table 3-15 STREET BUFFER TYPE REQUIREMENTS: PROPOSED

## RESIDENTIAL AND NON-RESIDENTIAL USES

Proposed Residential Use	Street Buffer Type Required		
Single-Family	E		
Duplex, Triplex, Quadruplex	A		
Multi-Family	A		
Manufactured Home Parks	В		
Proposed Non-Residential Uses			
(in Specific Zoning Districts)	Street Buffer Type Required		
R-15, R-10, R-6 -Institutional Uses	A		
0-1	A		
B-2	В		
B-3	A		
I-1	В		
GD - Manufacturing Uses	В		
GD - Large Retail and Wholesale Uses	В		
GD - Office, Small Retail	A		
GD - All Other Uses	В		
RD-1, RD-2, MRD-1	A		
BL L All L LL CC L LLL L L L L L L L L L L L L			

**Note**: All street buffers shall be designed in consideration of visibility at driveway sight triangles, intersection sight triangles, and overhead utility lines, as applicable.

### 3:5.1-7 Substitutions and Variations

The following substitutions and variations shall satisfy the requirements of this section:

- A. Existing Plant Materials The use of existing trees or shrubs to satisfy the perimeter landscaping requirements of this section is strongly encouraged. Existing significant vegetation within the required perimeter landscaped area shall be preserved and credited towards standards for the type of perimeter landscaping required unless otherwise approved by the Planning Official at the time of the site plan approval. Refer to the Tree Protection provisions of the Land Development Design Standards and Required Improvements section in Article 5 of this Ordinance.
- B. Fence or Wall Where, owing to existing land use, lot sizes or configurations, topography, or circumstances peculiar to a given piece of property, the buffer area requirements of this section cannot reasonably be met, fences and walls may be utilized as buffer area substitutions for non-street buffers.

All fences and walls used as part of the buffer area requirements must have a finished side that is facing the adjoining property. The interior side of the fence or wall may be finished as the owner deems appropriate. Walls may be brick or masonry. Plain concrete block walls must be rendered with decorative facing such as stucco, brick veneer, etc. Stockade fences (with spaces between the boards) are not allowed. All wood fences must be stained or painted. Chain link, wire, or other fences that do not create a visible barrier are not allowed.

The following substitutions can be made:

- 1. **Substitution for Type "B" Buffer** The developer may request, and the Planning Official may approve, the substitution of appropriate screening for Type "B" Buffer areas. The substitution may consist of the following:
  - a. An eight (8) foot fence or wall structure installed at least five (5) feet off of the side or rear property line; and
  - b. Ten (10) shrubs per 100 feet planted on the finished side facing the adjoining property; and
  - c. Two (2) medium-maturing trees or two (2) evergreen trees per 100 feet planted on the finished side facing the adjoining property.

- 2. **Substitution for Type "C" Buffer** The developer may request, and the Planning Official may approve, the substitution of appropriate screening for Type "C" Buffer areas. The substitution may consist of the following:
  - a. An eight (8) foot fence made of sound barrier material or an eight (8) foot brick or masonry wall installed at least five (5) feet off side or rear property line; and
  - b. Ten (10) shrubs per 100 feet planted on the finished side facing the adjoining property; and
  - c. Two (2) medium-maturing trees or two (2) evergreen trees per 100 feet planted on the finished side facing the adjoining property.
- 3. **Substitutions for Type "D" Buffers** The developer may request, and the Planning Official may approve, the substitution of appropriate screening for Type "D" Buffer areas in the way of a fence or wall structure incorporated into the required side or rear buffer areas of the proposed use in accord with the following:
  - a. An (8) foot fence made of sound barrier material or an eight (8) foot brick or masonry wall may be approved as a substitution for a maximum of one-half of the required buffer area (i.e. fifteen feet) if incorporated in conjunction with Type "D" Buffer plantings.
- C. **Berms** Berms may be included in buffer area design for Type "B" and Type "C" Buffer areas as approved by the Planning Official in consideration of site conditions:
  - 1. Berms of a minimum height of three (3) feet with plantings resulting in a total height of at least eight (8) feet at maturity. The required buffer type plantings may be reduced by fifty (50) percent.
  - 2. Berms of a minimum height of three (3) feet with a wall or fence (sound barrier fence for Type "C" Buffer areas) for a total height of at least eight (8) feet.
  - 3. Berms of a minimum height of eight (8) feet shall not require buffer type plantings, fences, or walls.
  - 4. Berms may be approved for incorporation into Type "D" Buffer areas in conjunction with Type "D" Buffer plantings on a case by case basis.
  - 5. All berms shall not exceed a slope with maximum rise of one (1) foot to a run of three (3) feet (expressed as a one to three [1:3] ratio or thirty-three [33] percent slope). All berms, regardless of size shall be stabilized with a groundcover or other suitable vegetation.
- D. **Distance/Depth** Where added depth (width) to the buffer area is proposed, the number of required evergreen plants may be reduced at a rate of one (1) per two (2) feet of additional buffer area (over the minimum required). The number of required evergreen plants may not be reduced more than forty (40) percent by adding increased depth.
- E. Alternate Design Where, owing to existing land use, lot sizes or configurations, topography, or circumstances peculiar to a given piece of property, the buffer area requirements of this section cannot reasonably be met, or where a site-specific alternate design would result in an aesthetically superior landscape design, substitution of plant material or placement may be approved by the Planning Official or the Planning and Zoning Commission, as applicable, providing that the alternate design meets the intent of this Ordinance.

#### 3:5.1-8 Required Maintenance

The maintenance of required buffer areas including fences, walls, and/or berms shall be the responsibility of the property owner. All such areas shall be properly maintained so as to ensure continued buffering. Landscaped areas shall be pruned, cleaned, and weeded regularly. All planted areas shall be provided with an irrigation system or a readily available water supply to ensure continuous healthy growth and development. Drought resistant native or adapted species may be supplied with temporary irrigation systems that can be removed after the plants are established (minimum of two [2] years). Otherwise, permanent irrigation systems shall be installed.

Dead or diseased plants shall be removed and replaced. Replacement plants shall be of similar type. All replacement shrubbery shall be a minimum three (3) gallon container size and all replacement evergreen and medium-maturing trees shall be no less than ten (10) gallon container size or one and one-half (1½) inch caliper,

balled and burlapped; and all large-maturing trees shall be not less than fifteen (15) gallon container size or two (2) inch caliper, balled and burlapped. Other replacement plants shall be of similar type and size. Debris and litter shall be cleared. Berms, fences, and walls shall be maintained and kept in good repair at all times. Failure to do so is a violation of this Ordinance, and shall be remedied in the manner prescribed for under the violations provisions of this Ordinance.

#### 3:5.1-9 Use of Buffer Areas

A buffer area may be used for passive recreation; however no tree may be removed except as specified herein. Freestanding signs which have been properly permitted may be installed in buffer yards. All other uses are prohibited, including off-street parking. To prevent damage to existing trees, overhead power lines and underground pipes cannot be installed in existing buffer yards. With approval of the Planning Official, such pipes may cross, but not run longitudinally within the buffer yard.

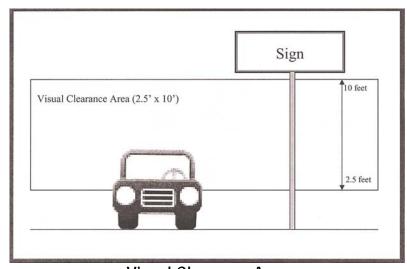
#### 3:5.1-10 Easements

No vegetative screening or fencing required in this section shall be planted or installed inside utility and drainage easements, excluding overhead easements, without the consent of the Planning Official and the easement holder. If plantings or fences inside utility or drainage easement areas are allowed, these plantings and fences shall be maintained in accordance with the terms of consent and any applicable maintenance provisions of this Ordinance. Any tree planted within the right-of-way of overhead utility lines shall be a small-maturing tree of a mature height of no greater than fifteen (15) feet.

# 3:5.1-11 Visibility at Intersections

All street buffers shall be designed in consideration of applicable visual clearance areas within driveway site triangles and roadway intersection site triangles.

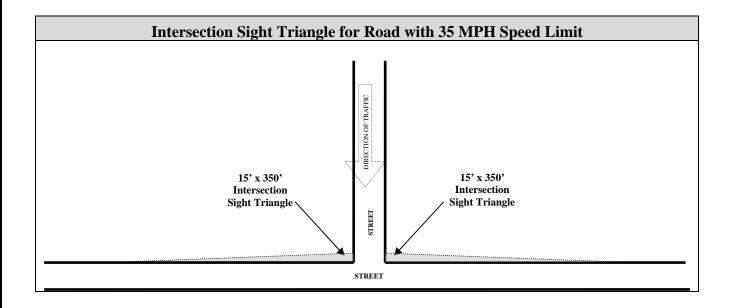
A. Visual Clearance Area - An area with a height of between two and one-half (2½) feet and ten (10) feet, measured from the upper edge of the curb or pavement, and located within an intersection or driveway sight triangle, where no sign, planting, fence, building, wall, or other structure shall be located. Exception: Poles and support structures less than twelve (12) inches in diameter may be permitted in such areas.



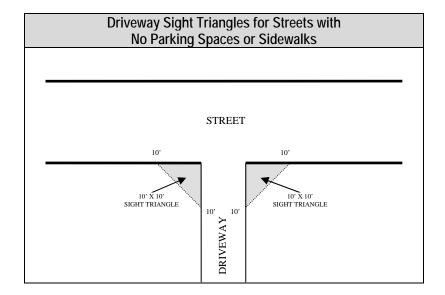
Visual Clearance Area

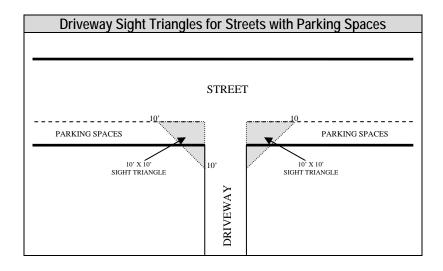
B. **Sight Triangle** - A triangular area, measured from the curb or edge of pavement, created by a line connecting points on the front and side for lines at a determined distance from the intersection of said lines or the extension of said lines. The following two types of sight triangles are used in this Ordinance:

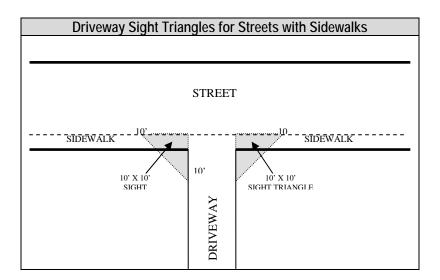
1. **Intersection Sight Triangle** - A triangle established by multiplying the speed limit of the road which is being accessed by ten (10). The sight distance for a speed limit of 35 MPH would be 350 feet at the intersection. The resulting intersection sight distance triangle is determined by measuring from a point fifteen (15) feet from the edge of pavement of the road being accessed to the points providing the minimum intersection sight distance in each direction.



2. **Driveway Sight Triangle** - The driveway sight triangle is one that is measured ten (10) feet along the driveway and ten (10) feet along the edge of pavement. In the event that parking is allowed adjacent to the curb, ten (10) feet will be measured along the edge of the driveway and ten (10) feet along the edge of the lane of traffic. In the event that a driveway crosses a sidewalk, ten (10) feet will be measured along the driveway and ten (10) feet along the edge of the sidewalk.







# 3:5.2 Screening

Screening is a type of buffer that is designed to block or obscure a particular element or use from view. The purpose of screening is to minimize, if not eliminate entirely, the visual impact of potentially unsightly open storage areas and refuse disposal facilities.

## 3:5.2-1 Where Required

Screening specified by this section shall be required of all open storage areas not devoted to retail sales visible from any public street or adjoining properties with which buffer areas are required. Areas requiring screening include open storage areas for shipping containers, building materials, appliances, trash containers of four (4) or more cubic yards, salvage materials, and similar unenclosed uses.

# 3:5.2-2 Type Screening Required

Screening shall be accomplished by an opaque divide not less than eight (8) feet in height. Screening may be accomplished by the use of sight-obscuring plant materials (generally evergreens), earth berms, walls, fences, proper siting of disruptive elements, building placement, or other design techniques approved by the Planning Official.

# 3:5.3 Non-Residential Landscaping

## 3:5.3-1 Where Required

No proposed commercial, institutional, industrial or other non-residential use shall hereafter be established unless landscaping is provided in accord with the provisions of this Article. No existing building, structure, or vehicular use area shall be enlarged by fifty (50) percent or more unless the minimum landscaping required by the provisions of this Article is provided throughout the building site. Enlargement involving twenty (20) to fifty (50) percent of the existing building shall meet the minimum requirements for the enlargement only. Enlargement involving less than twenty (20) percent shall not be required to meet the landscaping requirements provided herein.

# 3:5.3-2 Landscaping Plan

A landscaping plan shall be included in the zoning and land development site plan submitted with the land development permit and building permit applications. The landscaping plan may be incorporated into a site plan prepared to meet additional requirements of this Ordinance.

Required landscaping shall be provided as follows:

- A. Along the outer perimeter of a lot or parcel, where required by the buffer area provisions of this Article, to buffer and separate incompatible land uses;
- B. the street buffer;
- C. to provide any required screening; and
- D. within the interior of the site.

## 3:5.3-3 Cluster Developments

Non-residential cluster developments shall meet the sixty (60) percent open space requirements of the Conservation Subdivision and Group Development Design provisions of this Ordinance.

The plan shall:

- A. Designate areas to be reserved for landscaping. The specific design of landscaping shall be sensitive to the physical and design characteristics of the site.
- B. Indicate the location and dimensions and type of landscaped areas, plant materials, decorative features, hardscape areas (driveways, walkways, parking, etc.), utility lines, etc.
- C. Identify all existing pine trees of twenty (20) inches or greater diameter at breast height (DBH) and all other tree species of eight (8) inches or greater DBH in the required setback (yard) areas, buffer areas, screening, interior landscaping, and open space areas per the Tree Protection provisions of the resource conservation regulations of this Ordinance.

### 3:5.3-4 Interior Landscaping

Within the interior, large parking lots with an unbroken expanse of pavement shall be avoided to the extent practicable by breaking the lot into small sections with internal planting areas (landscape islands) that feature trees planted in mulched bed areas or other ornamental landscaping. Parking lots shall be designed as a series of smaller areas that provide parking space for no more than thirty (30) automobiles for double-sided parking and fifteen (15) automobiles for single-sided parking. These smaller parking areas shall be separated by landscape islands which shall be designed in consideration of automobile overhang so as to avoid damage to plantings. The Planning Official shall maintain a current list of tree and shrub species that shall be used to select the plant materials for interior landscaped areas. Alternate species not on the list must be approved by the Planning Official.

- A. **Off-Street Parking Area Landscaping** Off-street parking area landscaping shall meet the following requirements:
  - 1. A minimum of one (1) large maturing tree shall be provided for every ten (10) parking stalls.

- 2. No off-street parking space may be located more than sixty (60) feet from the trunk of a large-maturing tree.
- 3. Significant trees shall be utilized per the Tree Protection provisions of Article 5.
- 4. The use of existing trees is encouraged.
- 5. Large-maturing shade trees, evergreen, or deciduous trees of a species with an expected mature height of at least forty-five (45) feet and an expected crown spread of twenty-five (25) feet shall be provided.
- 6. Such trees shall be planted in an area with at least 200 square feet of rooting space.
- 7. During site grading activities, any topsoil removed shall be segregated until it is placed in the tree planting space and used as a planting medium.
- 8. No tree may be planted closer than five (5) feet to the back of a curb or the paved portion of the parking lot.
- B. Screening for Parking Areas Located Adjacent to a Public Street Parking area screening is required in conjunction with street buffer landscaping. Screening shall be no less than five (5) feet in width and no more than four (4) feet in height. Screening can be composed of:
  - 1. **Masonry Walls** Plain concrete block must be rendered with decorative facing such as stucco, brick veneer, etc.
  - 2. Wood Fences Stockade fences and unpainted or unstained fences are not allowed.
  - 3. **Landscaped Berms** Berms may incorporate the plantings required for Type "A" or Type "B" street buffers.
  - 4. Landscape Islands Landscape islands shall be at least five (5) feet in width, and shall contain the required street buffer trees, and be planted with shrubbery with no openings between shrub plantings. Shrubs shall be evergreen species locally adapted to the area. Landscape islands and berms shall be designed in consideration of automobile overhang so as to avoid damage to plantings. Note that landscape islands which contain large maturing trees must provide for a minimum of 200 square feet of rooting space.
  - 5. **Alternate Combinations** Alternate combinations that effectively screen the parking area from the public street and that are in character with neighboring development may be approved by the Planning Official.
- C. Other Interior Landscaping Elsewhere in the interior, landscaped areas shall be designed to soften and complement the building site. Landscaping along ten (10) percent of the exterior building walls and structures is required to separate the building from the vehicular surface area. Rooftop runoff shall be directed to pervious areas of the site to allow natural infiltration versus direct discharge into the stormwater conveyance system. To accomplish this, a minimum three (3) foot wide vegetative strip separating the rooftop downspout discharge points and impervious pavement shall be provided to receive the required ten (10) percent landscaping. Splash blocks or level spreaders shall be utilized at the downspout discharge points to promote sheet flow across the vegetative strip and facilitate infiltration.

Landscaped areas shall equal at least ten (10) percent of the total lot/parcel area. Required perimeter and street buffer area landscaping may provide up to fifty (50) percent of this requirement.

## 3:5.3-5 Signage Landscaping

- A. Multiple Occupant Development Directory Signs If sign is not located in a required buffer yard, the base of the sign shall be landscaped with mulch or turf and low profile plantings such as shrubs, ornamental grasses, or flowers. Such landscaping shall equal the total surface area of the sign face and shall be regularly maintained in good condition.
- B. Outdoor Drive-Thru Menu Boards The base of the menu board shall be landscaped and/or incorporated into the landscaping plan.
- C. **Residential Subdivision Signs** Where a single ground sign is erected, such sign shall have a minimum of fifty (50) square feet of landscaped area at the base of the sign. Where two (2) ground signs are erected, each sign shall have a minimum of twenty-five (25) square feet of landscaped area at the base of each sign.

## 3:5.3-6 Required Maintenance

The maintenance of required landscaped areas shall be the responsibility of the property owner. All such areas shall be properly maintained so as to assure their long-term survival and aesthetic value, and shall be provided with a regular and adequate application of water via an irrigation system or a readily available water supply to ensure continuous healthy growth and development. Stormwater runoff shall be utilized to the maximum extent practicable for landscaping irrigation. Dead or diseased plants shall be removed and replaced. Replacement trees shall be of a similar type. All replacement shrubbery shall be a minimum three (3) gallon container size; all replacement evergreen and medium-maturing trees shall be no less than ten (10) gallon container size or one and one-half (1½) inch caliper, balled and burlapped; and all large-maturing trees shall be not less than fifteen (15) gallon container size or two (2) inch caliper, balled and burlapped. Other replacement plants shall be of similar type and size. Debris and litter shall be cleared. Berms, fences, and walls shall be maintained and kept in good repair at all times. Failure to monitor such areas is a violation of this Ordinance, and shall be remedied in the manner prescribed for other violations.

# 3:5.4 Residential Common Open Space

Common open space is land and/or water bodies used for recreation, amenity, or buffer. The purpose of this section is to ensure adequate open space for single-family and high density residential development; to integrate recreation, landscaping, greenery, and/or natural areas into such projects; to promote the health and safety of residents of such projects; to compensate for the loss of open space inherent in single-family and multi-family residential projects; and to aid in stormwater management.

The open space shall be freely accessible to all residents and property owners of a development, where required by this Ordinance. Open space shall not be occupied by buildings or structures other than those in conjunction with the use of the open space including roads and parking. Common open space shall not be included in the area calculated to meet minimum lot area requirements. Parking areas within the common open space area to accommodate open space amenities shall not be calculated to meet site parking area requirements.

## 3:5.4-1 Where Required

A. Open Space Requirements for Major Subdivision Residential Developments - Open space shall be reserved for active or passive recreation where such reservations would be appropriate. Each reservation shall be of suitable size, dimension, topography, and general access for the particular purposes envisioned by the applicant and the Planning and Zoning Commission. These areas shall be shown on the sketch plan, preliminary plans, and final plats and shall be marked "reserved for recreation open space." Provisions for the maintenance of the open space shall be stipulated prior to approval. Kershaw County will not assume responsibility of the maintenance of the open space. The total number of acres to be reserved in open space area(s) shall be determined in accordance with the following formula which has been prepared on the basis of providing approximately three (3) acres (130,608 square feet) for every 100 one-acre dwelling unit lots:

 $130,680 \div A = OS$ 

 $A = Average \ square \ feet \ of \ subdivision \ lot \ (total \ square \ feet \ of \ all \ lots \ \div \ number \ of \ lots)$ 

OS = Percent of total acreage of development site required to be set aside for open space

Example: Average lot size = 18,000 ft sq.

 $130,680 \div 18,000 = 7.26\%$ 

If the total site development acreage were 150 acres, then 10.89 acres (150 x 7.26%) acres of open space would be required.

For that same 150 acre site with an average lot size of 60,000 square feet, 3.27 acres of open space would be required.  $130,680 \div 60,000 = 2.18\%$   $150 \times 2.18\% = 3.27$  acres

B. **Multifamily and High-Density Residential** - The following uses/projects consisting of eight (8) or more units shall provide common open space in the amounts prescribed:

Table 3-16 COMMON OPEN SPACE:		
AMOUNT REQUIRED		
Proposed Uses/Projects	Ratio (% of Lot)	
Townhouse Projects	15	
Manufactured Home Parks	20	
Multi-Family Projects	20	

- C. Cluster Developments Residential cluster developments shall meet the sixty (60) percent open space requirements of the Conservation Subdivision and Group Development Design provisions of this Ordinance.
- D. **Planned Development Districts** Open space requirements shall be per the approved development plan or meet the minimum requirements for the corresponding residential and/or non-residential uses of this Ordinance.

**Note**: Landscaped buffer areas provided to meet the requirements for multi-family projects and mobile/manufactured home parks may not be applied toward meeting the above requirements.

## 3:5.4-2 Applicability of Open Space Requirements

- A. **New Sites** No proposed development, building, or structure in connection with the above shall hereafter be erected or used unless common open space is provided in accord with the provisions of this section.
- B. **Existing Sites** No existing development, building, or structure in connection with the above shall be expanded or enlarged unless the minimum common open space required by the provisions of this section are provided to the extent of the alteration or expansion.

## 3:5.4-3 Common Open Space Plan

Proposed uses/projects and residential subdivisions shall submit an open space or landscaping plan as part of the application for a building permit. The plan shall:

- A. Designate areas to be reserved as open space. The specific design of open space shall be sensitive to the physical and design characteristics of the site.
- B. Designate the type of open space which will be provided, and indicate the location of plant materials, decorative features, recreational facilities, etc.
- C. Specify the manner in which common open space shall be perpetuated, maintained, and administered.

## 3:5.4-4 Types of Common Open Space and Required Maintenance

The types of common open space which may be provided to satisfy the requirements of this Ordinance together with the maintenance required for each are as follows:

- A. **Natural Areas** Natural areas are areas of undisturbed vegetation or areas replanted with vegetation after construction. Woodlands and wetlands are specific types of natural areas. Maintenance is limited to removal of litter, dead trees, plant materials, and brush. Natural watercourses are to be maintained as free-flowing and devoid of debris. Stream channels shall be maintained so as not to alter floodplain levels.
- B. Recreational Areas Recreational areas are designed for specific active recreational uses such as tot lots, tennis courts, swimming pools, ball fields, and similar uses. Recreational area shall be accessible to all residents of the development. Maintenance shall ensure that there exist no hazards, nuisances, or unhealthy conditions.
- C. **Greenways** Greenways are linear green belts linking residential areas with other open space areas. These greenways may contain bicycle paths, footpaths, and bridle paths. Connecting greenways between

- residences and recreational areas are encouraged. Maintenance is limited to a minimum of removal and avoidance of hazards, nuisances, or unhealthy conditions.
- D. Landscaped areas, lawns, and required buffer areas, including creative landscaped areas with gravel and tile, so long as the tile does not occupy more than two (2) percent of the required open space. Lawns, with or without trees and shrubs, shall be watered regularly to ensure survival, and mowed regularly to ensure neatness. Landscaped areas shall be pruned, cleaned, kept free of weeds, and watered regularly.
- E. Conservation Design Subdivision and Group Development Projects Open space areas identified as agriculturally, environmentally, or ecologically significant shall be governed per the conservation design subdivision and group development provisions of this Ordinance.

## 3:5.4-5 Preservation of Open Space

Land designated as common open space may not be separately sold, subdivided, or developed. Open space areas shall be maintained so that their use and enjoyment as open space are not diminished or destroyed. Open space areas may be owned, preserved, and maintained as required by this section by any of the following mechanisms or combinations thereof:

- A. Common ownership of the open space by a homeowner's association which assumes full responsibility for its maintenance.
- B. Deed restricted private ownership which shall prevent development and/or subsequent subdivision of the open space land and provide the maintenance.
- C. Open space in a conservation design subdivision and group development design project must be held in a conservation easement.

In the event that any private owner of open space fails to maintain same, the County may in accordance with the open space plan and following reasonable notice, demand that deficiency of maintenance be corrected, and enter the open space to maintain same. The cost of such maintenance shall be charged to those persons having the primary responsibility for maintenance of the open space.

# 3:5.4-6 Residential Major Subdivision Reverse Frontage Lots

Residential major subdivisions, where proposed for areas adjacent to arterial streets and roads, shall be denied direct access to, and shall be separated from such streets and roads by reverse frontage lots. Elsewhere, double frontage lots shall be prohibited.

Residential reverse frontage lots shall have a minimum rear yard of fifty (50) feet next to the arterial street, measured from the shortest distance of the proposed back building line to the street right-of-way, and shall within such rear yard and immediately adjacent to the right-of-way, have a non-access planting screen easement of at least thirty (30) feet in depth planted to Type "D" Buffer requirements per this Article.

# 3:5.5 Utilization of Buffers, Screening and Open Space for Stormwater Management

To the greatest extent practicable, vegetative buffers, screening, and open space areas shall be designed to assist in the minimization of off-site stormwater runoff. Stormwater runoff shall be utilized to the maximum extent practicable for landscaping irrigation. Vegetative swales and bioretention cells can be incorporated into buffer, screening, interior landscaping, and open space design as a means of diverting, retaining, and treating stormwater.

# 3:5.6 Definitions

**Berm** - Any hill or slope which represents a change of elevation of at least twenty-five (25) percent (4:1 slope) and a maximum of thirty-tree (33) percent (3:1 slope), and which is covered with an appropriate stabilizing vegetation.

**Caliper** - The diameter of a trunk of a nursery-grown tree or immature tree to be transplanted on the site measured at six (6) inches above the top of the root mass.

**Cluster Development** - A form of development that permits a reduction in lot area and/or bulk requirements, providing that the total project density is comparable to the density permitted under a conventional development.

Diameter at Breast Height (DBH) - The standard measure of tree diameter for trees existing in place on a site. The tree trunk is measured four and one-half (4½) feet above the ground. If the tree splits into multiple trunks below four and one-half (4½) feet, the trunk is measured at its most narrow point beneath the split.

**Easement** - A right-of-way granted, but not dedicated, for limited use of private land for a public or quasi-public purpose and within which the owner of the property shall not erect any permanent structures.

Lot, Reverse Frontage - A double frontage lot extending between, and having frontage on, an arterial street and a minor street, and with vehicular access solely from the minor street.

**Native and Adapted Plants** - Native plants are plants that were growing in this region prior to European settlement. Adapted plants are plants that have been introduced to the region that grow reliably well. Native and adapted plants require minimal attention from humans in the form of winter protection, pest treatment, water irrigation, or fertilization once the root systems are established in the soil. Native and adapted plants are considered to be low maintenance but not invasive.

**Shrub** - Any hard-wooded perennial plant of a species which normally reaches a height between twelve (12) inches and eight (8) feet, which is between eighty (80) and 100 percent opaque at maturity.

Tree - A usually tall, woody plant, distinguished from a shrub by having comparatively greater size and longevity.

Tree, Evergreen - A tree which retains its foliage for the majority of the year. Examples include most conifers such as pines, hollies, and cedars.

Tree, Large Maturing - A single trunk tree whose canopy dimensions have the potential to reach at least forty-five (45) feet tall and twenty-five (25) feet wide at maturity.

**Tree**, **Medium Maturing** - A single trunk tree whose canopy dimensions that have the potential to reach at least twenty-five (25) feet tall and twenty (20) feet wide at maturity.

**Tree**, **Small Maturing** - Single trunk or multi-stem dimensioned trees that have the potential to reach at least fifteen (15) feet tall and fifteen (15) feet wide at maturity.